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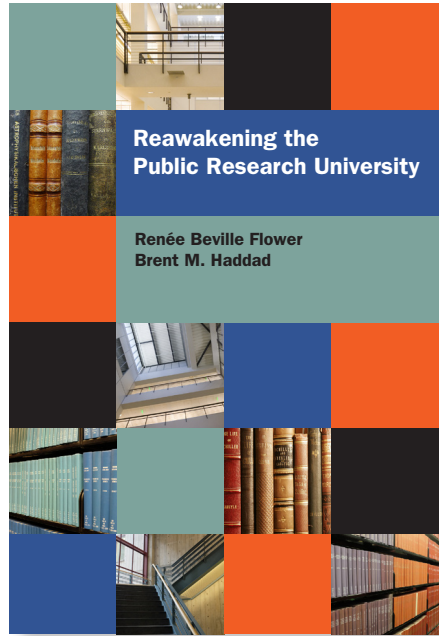
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Reawakening the Public Research University

Renée Beville Flower
Brent M. Haddad

A core institution in the human endeavor—the public research university—is in transition. As U.S. public universities adapt to a multi-decadal decline in public funding, they risk losing their essential character as a generator, evaluator, and archivist of ideas and as a wellspring of tomorrow’s intellectual, economic, and political leaders.

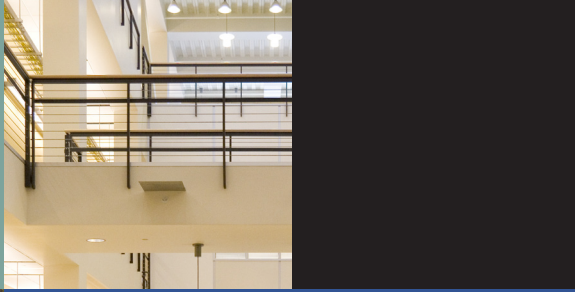
This book explores the core interdependent and coevolving structures of the research university: its physical domain (buildings, libraries, classrooms), administration (governance and funding), and intellectual structures (curricula and degree programs). It searches the U.S. history of the public research university to identify its essential qualities, and generates recommendations that identify the crucial roles of university administration, state government and federal government.



Renée Beville Flower is an independent researcher with extensive experience in the expressive arts, an academic background in environmental studies, and a decades-long close association with the University of California.

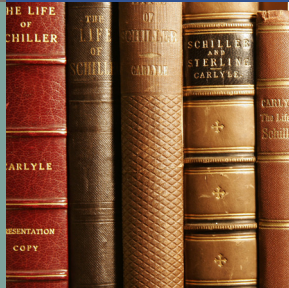


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Dedicated to the libraries and archives that preserved the books, documents, and data that shape our book's foundation; to those who cherish libraries; to all who share our concern for the fate of public higher education; and to those who have dedicated their lives to the welfare and growth of research universities.

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PREFACE

The University has the anomalous qualities of being both highly structured and deeply liberal. Most scholars and scholarly work emerge from the structured pathways of the academy: departments, degree-granting programs, research laboratories, and coursework. Most university-trained scholars and ideas enter society with clean shoes and a sure step. The well-defined pathways of the academy invite creativity and reward achievement.

Scholars at universities play the essential role of comparing what is new in the world of ideas to what is old and determining whether the new idea is truly novel and promising or just a bad old idea wrapped in new cloth. Uncounted bad ideas are sanded down to fine powder every day in the halls and walkways of the Academy. This is an essential service to society since it would take pundits and politicians much longer than a scholar to identify a subtly bad idea, often not until after the idea has wreaked havoc on us all in the forms of war, oppression, and economic suffering. Ideas powerful enough to destroy lives do not die easy deaths. The University provides a safe, structured place for the sometimes-vicious swordsmanship of intellectual exchange. When an idea is destroyed, no one else is actually destroyed along with it, although it often feels that way to the defeated proponents.

There is an odd character trait to the University. It depends upon yet abhors its strict institutional structures. Every faculty member is at once a functionary and a rebel. Faculty members realize that the rules, budgets, and procedures of the Academy can facilitate and evaluate new ideas, but not create them. Creating new ideas, the process of inspiration, is an elusive process. The best that scholars of innovation can do is record the history of how important ideas have emerged and offer rules of thumb for how to recreate the same conditions. But there is no certainty that following the rules will yield a new idea.

Faculty, whose reputations and career prospects depend upon the

generation and nurturing of new ideas, understand that ideas can emerge anywhere from anyone. A monkey wrench gets thrown in the gears of the Academy when the source of the idea and the idea itself are not aligned with the Academy's evaluation mechanisms. Those who anoint the idea – publishers, peer reviewers – face the risk of stamping approval on unknowns who have missed the crucial debates, not won any awards, and don't say things quite as one is used to hearing. This is the context of the book before you and we applaud the University of California's eScholarship open-access publishing services for its leap of faith in bringing our work to you.

This book's story begins decades ago with the growing independent recognition of two individuals (your authors) that the University of California was central not only to their own lives but to the state, nation, and world. Renee Flower is a University of California graduate. In her mid-twenties, she entered UC Santa Cruz as a transfer student from a California community college. First interested in the physical, biological, and social sciences, she graduated with a major in Art in 1979. In the early 1970s, before beginning coursework at Cabrillo College, she worked as a clerk at a research institute at UC Los Angeles, copying and filling orders for research papers. She also worked at the Santa Cruz campus for a time before pursuing a career as an artist and illustrator. For 31 years, her husband had the interesting career of developing and evolving the Santa Cruz campus's visual identity; designing many of its informational, fundraising, and undergraduate and graduate admissions communications; and serving as art director of the university magazine from its founding in 1986 until his retirement in 2009. The unfolding saga of a growing campus was for many decades the "dinner theatre" of Ms. Flower's household.

Brent Haddad entered the University of California as a high school honors student, stayed one year, and transferred to a private college. Two degrees later he was back, earning both a business degree and a doctorate at the Berkeley campus and then launching his professorial career at the Santa Cruz campus in a Department called Environmental Studies. To that point, each of his four degrees had been in what is known as an "interdisciplinary program" – one centered on a topic (e.g., international relations, business administration, energy and resources) rather than around a set of ideas and methods of inquiry (e.g.,

mathematics, biology, history). Being his campus's only permanent faculty member with a master's degree in Business Administration, he was pulled in (and gravitated) to administrative functions that introduced him to the budgets and governance of the Santa Cruz campus and soon the entire UC system. Currently, he is a member of two Departments, Environmental Studies and Technology Management, and Chair of the latter.

All students of the University of California must be enrolled in a degree-granting program. There is an exception: a community member can take courses through a process called "concurrent enrollment." Ms. Flower, her early interest in the sciences reanimated by her active involvement in public processes related to her community's urban and open-space development policies, decided to take Environmental Studies courses through concurrent enrollment to deepen her understanding of the science underlying the policies. She took as many as she could, in essence earning another bachelor's degree. In Professor Haddad's course, he was astounded by her careful analysis and thorough and detailed citation list in the brief paper his course required. He was also impressed that she made the effort to attend his office hours. He investigated her career as an artist and appreciated that her paintings had whimsical precision and that the edges of her compositions were developed with as much detail as the central images.

Upon inquiry with other professors, he learned that Ms. Flower – a mere concurrent enrollment student – had actually developed a reputation in the Department as an outstanding student who was demanding of professorial time and attention. Professor Haddad, who had his own reputation as a strict and demanding teacher, decided that he could live with "demanding" in exchange for "outstanding." He therefore proposed to co-author a book with Ms. Flower. Through her work to satisfy university course requirements, Flower had discovered the exciting challenge and deep enjoyment inherent in academic research and writing, and after a weekend's careful consideration, she accepted the offer.

The University was able to accommodate this crazy idea. Flower was associated with UC as an alumna, occasional non-degree student, spouse of a staff member, and neighbor. She held no research title and was not a matriculated student. The topic of the book, after some

bounces in other related directions, settled on the issue of deepest concern to them both – the preservation of the public research university as a cultural, social, and economic force in society. Haddad, for all his degrees, had never formally studied education or public administration. And nowhere in the Environmental Studies Department literature is there mention of a Departmental interest in the history and fate of higher education. Yet the accommodations took the form of allowing Flower access to university library resources through a “proxy card,” and affording Haddad a temporary (albeit multi-year) hole in his research productivity as he pursued this collaboration. Structure yielded to inspiration. The university, for which time passes in blocks of half-centuries, has been able to accommodate a faculty member’s 9-year book project.

The contributions of each author to producing their book were complementary. As first author, Flower carried out research for the book project, composed the draft manuscript, and maintained the project’s files. Haddad provided points of discussion and intellectual direction, and reviewed Flower’s chapter drafts.

What caused the co-authors to independently fear for the future of the public research university? The importance of the public research university was obvious to them both. Both see as crucial the role of the public research university in ongoing debates over culture and what it means to be human. They appreciate the research program that spans from purely theoretical to ready-for-public-use. The teaching mission prepares individuals who will rise to leadership and make important public- and private-sector decisions of wide-ranging impact. And the service mission of the university includes participation in public debates over today’s jagged points of social contention. In particular, they see the University of California as global bulwark whose vitality and success justifies public investments in higher education worldwide.

The decline they perceive is related to the changing priorities of state legislatures in the U.S. What was once a protected and major component of each state’s budget – one’s own public university – is now in steep decline as a percentage of overall spending. Nearly all states face the fiscal challenges of ballooning pension and social services costs, replacing existing infrastructure, and paying for prisons, police, judicial functions, and environmental protection. The immediacy of the elec-

tion cycle discourages long-term, slow-yielding investments in higher education, and the mobile national population creates a free-rider argument for cutting one's own higher education budget in the hope that qualified graduates from other states will fill one's own employment needs.

Universities are punching new notches in their tightening belts as state budget cuts transition them from doing the same with less to doing less with less – fewer faculty, fewer degree programs, fewer research initiatives, less public service. Universities are also ramping up their search for new revenues to replace state funds. This is an area of particular concern to the authors since the source of the new funds could influence the essential character of the university and there is a danger that the most valued roles of the university will be compromised by the new funding models.

Without a thorough reexamination and reawakening of the public research university, no change in these troubling trends can be expected. Public confidence in the university must be restored if legislators are to again prioritize higher education spending. This book searches historically for what is essential in the public research university, how it serves society, and what can be done to protect and restore those functions. We believe that the public still values the traditional roles of the public research university – in research, teaching, and service – and that when convinced that these roles are moving in directions that will continue to serve society well, they will insist on support from their legislatures. We hope this book contributes to the reawakening of the public research university.

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Brent M. Haddad, MA, MBA, Ph.D.
Santa Cruz, California
2014

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CHAPTER 1

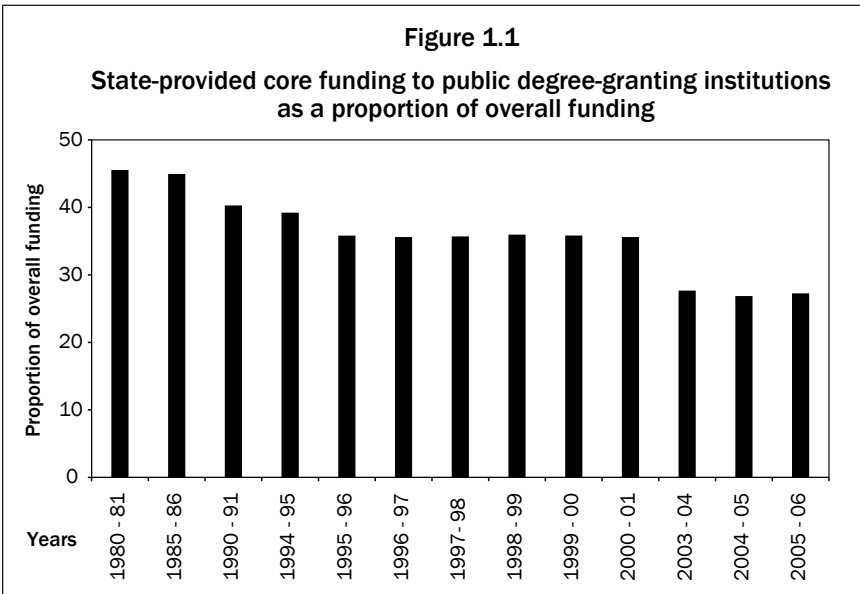
Public Higher Education at the Crossroads

Each era faces unique challenges that require innovative perspectives, technical skill, and knowledge of the past. Our era is no different from any other. Using a broad brush, the global challenges we face today include maintaining social cohesion in the face of rapidly-changing ecological, technical, and social conditions, addressing resource constraints in supplying an adequate material quality of life as human population expands, reversing the loss of biodiversity and availability of habitats where complex living organisms can flourish, and tying the resolution of these challenges into widely-accepted narratives of global change that do not include violence of person against person and nation against nation. Addressing an agenda this encompassing and complex calls upon all of humanity's resources, from individual ingenuity and effort to globally-coordinated endeavors.

An absolutely essential component of the endeavor in the United States is the public research university. American public research universities are accountable to society at large for their research and teaching programs. This is not a detailed accountability of content, but rather of goals, direction, and performance. Public research universities assemble talent, perspectives, material resources, physical space, and time needed for ideas to emerge, experiments to occur, interpretations to be debated, and implications considered. Participants are not bound by the constraints of proving their results in competitive markets, of considering political expediency, or of dealing with immediate material need. Instead, the university actively constructs and defends barriers against such pressures. Universities are havens of ideas, techniques, energy, past wisdom, and rules of discourse (professional disciplinary standards) from which we hope and expect a better path to the future will emerge.

The U.S. system of public higher education has been in transition since the 1960s from a state-centered system to a hybrid state-federal-private model. The campuses still retain their name affiliation with the

states in which they are located, as well as core funding for salaries, physical plant, and operating expenses. State-provided core funding as a proportion of overall funding continues to decline. The lost funds are being supplanted by a mix of improved internal efficiencies on campuses, private donations, increased tuition and fees, and research funds from a variety of sources, especially federal. States are choosing to fund their public research universities less, and the federal government and private sector are choosing to fund them more. Universities, aware of these trends, are adapting to them.



Sources for Figure 1.1: Snyder, T.D., Dillow, S.A., Hoffman, C.M. 2009. *Digest of Education Statistics 2008* (NCES 2009-020). Washington, DC.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education: Table 349. Current-fund revenue of public degree-granting institutions, by source of funds: Selected years, 1980-81 through 2000-01, http://nces.ed.gov/programs/digest/d08/tables/dt08_349.asp. Table 350, Revenues of public degree-granting institutions, by source of revenue and type of institution: 2003-04, 2004-05, and 2005-06. http://nces.ed.gov/programs/digest/d08/tables/dt08_350.asp.

While it's true that universities are improving internal efficiencies, this phrase is also a euphemism. In response to declining budgets, many universities are also eliminating fine programs and weakening staffs that provide excellent service and are sources of invaluable institutional memory. As taxpayer-funded support for public higher edu-

cation declines, the public research university's capacity for achieving state and federal research goals shrinks.

This shift in the financing of public higher education both emerges from and is driving other important social changes. The first is a growing recognition that many of the major problems facing the United States are national problems, not state or regional. These include maintaining economic competitiveness, protecting and improving human health, dealing with a wide range of environmental problems, developing sustainable energy technologies, and maintaining national security. While these problems have regional aspects to them, they are national in character. It therefore makes less sense to fund the search for solutions through decentralized and uncoordinated state programs and more sense for the search to be funded nationally. Funding trends are in agreement with this argument. States are still investing in regional aspects of the larger problems, but federal funding is the primary source.

Funding for higher education is changing in a different and perhaps more fundamental way. There is a shift in the direction of fee for service, and away from unrestricted funds. Tuition and fees paid by students for instruction and campus services are the most obvious examples. On the research side, gifts, grants, and contracts nearly always fund a particular project or area of study. Federal monies are targeted to particular programs. Unrestricted money is drying up: these are the historically state-provided funds. Unrestricted funds play a critical role in the public university; in the absence of unrestricted funds, there would be no university. In its place we would likely see the kind of proprietary institution described by the American Association of University Professors (AAUP) in 1915: an institution with a "purpose not to advance knowledge by the unrestricted research and unfettered discussion of impartial investigators, but rather to subsidize the promotion of the opinions held by the persons...who provide the funds for their maintenance."¹

Targeted funds have a target: a fairly well described end-point or goal. Funding targets are defined and justified by long lists of related publications, clearly defined research questions, and approved methods of

1. Seligman, E. R. A., et al. 1915. "General Report of the Committee on Academic Freedom and Academic Tenure: Presented at the Annual Meeting of the Association: December 31, 1915." *Bulletin of the American Association of University Professors* 1: 15-43. p. 22.

inquiry. Otherwise, the commitment of funds is too risky. On the issue of funding for research that does not have well-defined targets, Dr. John P. Holdren, Director of the Office of Science and Technology Policy in the Executive Office of the President of the United States, said:

“U.S. scientific leadership requires both creating an environment that encourages private investment in research and development while maintaining strong and balanced federal research programs that support the promising areas of R&D that are too far from obvious application, too uncertain in outcome, too costly, or too related to public as opposed to private goods to attract private funding.”²

Holdren justifies federal support for research spending on projects that aren't ripe or are inappropriate for private-sector support, gap-filling in an otherwise robust private sector program of research funding. This is still end-point or target-oriented, only the nature of the end-point or the maturity of the program does not lend itself to private investment.

However, one of the roles of the university is to create new targets or end-points where none previously existed. That means identifying or re-organizing an existing problem and then doing the legwork of describing it, noting what has already been written about it, and proposing some methods for studying/dealing with the problem. This has historically been the province of unrestricted funding: the university keeps professors employed on unrestricted funds so that they can pursue and attempt to create new understandings and agendas. The free academic inquiry that is a hallmark of the U.S. system is dependent on unrestricted funds. But, are all aspects of the ever-expanding reach of intellectual pursuit appropriate to the mission of the public research university? In their book, “For the

2. Holdren, J. P., Office of Science & Technology Policy, Executive Office of the President of the United States of America. 2009. *Statement of Dr. John P. Holdren, Director-designate, Office of Science and Technology Policy, Executive Office of the President, for the Committee on Commerce, Science, and Transportation, United States Senate, Washington, D.C., February 12, 2009.* (April 6, 2010, http://www.whitehouse.gov/files/documents/ostp/testimony/holdren_senate_testimony.pdf). A press release issued by the OSTP on March 20, 2009, to announce the confirmation of Holdren for Director of OSTP, states: “In 1973 Holdren cofounded, and then co-directed until 1996, a pioneering interdisciplinary graduate program at the University of California, Berkeley – the Energy and Resources Group – focused on the interaction of scientific, technological, economic, and sociopolitical dimensions of energy and environmental challenges.” Office of Science and Technology Policy Executive: Office of the President of the United States. 2009. *Press Release: Holdren Confirmed as Director of OSTP, March 20, 2009.* (April 6, 2010, http://www.whitehouse.gov/files/documents/ostp/press_release_files/holdren_confirmation_release_3-20-09.pdf)

Common Good,” Matthew W. Finkin, Professor of Law at the University of Illinois College of Law, and Robert C. Post, Dean and Professor of Law at Yale Law School, examine the relation between the university and society described in the American Association of University Professors’ 1915 *Declaration of Principles on Academic Freedom and Academic Tenure*.³ Finkin and Post state that academic freedom “rests on a covenant struck between the university as an institution and the general public, not on a contract between particular scholars and the general public,” and that “[a] great strength of the ideal of academic freedom propounded by the 1915 *Declaration* is that it ties the protection of university-wide academic freedom to the production of social goods that the public actually requires.”⁴

Support for free academic inquiry is withering away, but an unusual replacement is emerging. It is the requirements for interdisciplinary research teams to apply for grants that has become commonplace in many fields. Federal and other funding frequently require interdisciplinary teams and approaches to research. This means the work can’t be done only by biologists or physicists or some other similarly-trained subset of researchers. Instead, the applicants must demonstrate that they are a team with different research techniques and that their many different techniques and perspectives are represented in the work proposal. The argument is that multiple perspectives are needed to solve the complex problems we face.

The fundamental motivation in the arrangement is that new approaches must be developed and deployed if the group is going to be financed by the federal government (and numerous other agencies). This is substituting to an extent for the reduction in unrestricted funds. But it is different. Ideas start in a single mind. The value of unrestricted funding of professors is that the individual can cultivate an idea and bring it to flower beyond the categories and scrutiny of potential funders. Of course there are ten rotten ideas for every one fine insight. But the insights are worth it. They are just what society needs to move forward,

3. Seligman, E. R. A., et al. 1915. “General Report of the Committee on Academic Freedom and Academic Tenure: Presented at the Annual Meeting of the Association: December 31, 1915.” *Bulletin of the American Association of University Professors* 1: 15-43. This document is also available on the AAUP website at: <http://www.aaup.org/AAUP/pubsres/policydocs/contents/1915.htm>. Accessed: August 30, 2010.

4. Finkin, M. W., Post, R. C. 2009. *For the Common Good: Principles of American Academic Freedom*. New Haven & London: Yale University Press. p. 42.

solve its problems, and improve the quality of the human experience.⁵

This book makes a case for greater public support of public higher education, including restoration of taxpayer-provided unrestricted funding. We have chosen to write because we see a deterioration of public higher education taking place in part as a result of reduced state funding for public research universities, and in part because these universities have lost their sense of direction.

To support our case, we take a historic/analytic approach. We delve into the early history of U.S. public higher education in an attempt to understand where public research universities came from, what they are capable of, how to understand their current stresses, and what services they can provide to society going forward.

This is not the first history of higher education to be published. Histories of higher education in the United States that we have studied take numerous different approaches. They emphasize political, economic, sociological, biographical, philosophical, and legal aspects of higher education. These approaches are useful for their overview of historical events and trends.

Books on the politics of higher education are concerned with the policy goals of organized political interests, including legislators, university administrators and other actors working within higher education's local, state, and federal policy communities. Examples of recent books on the politics of higher education include Christopher Newfield's *Unmaking of the Public University: The Forty-Year Assault*

5. The search for new knowledge and the methods of knowledge production are at the core of the contrast between the public research university and the religion-based universities established during the colonial era of United States history and the antebellum denominational colleges of nineteenth-century America. The term "science," from the Latin "scientia," is defined as knowledge, as opposed to "belief" or "opinion." The Oxford English Dictionary defines "science" as "a particular branch of knowledge or study; a recognized department of learning" such as the Trivium (Grammar, Logic, Rhetoric) and the Quadrivium (Arithmetic, Music, Geometry, Astronomy) of the Middle Ages. However, in modern use, the term "science" is often restricted to those branches of study that relate to the phenomena of the material universe and their laws, and is understood as being synonymous with the biological and physical sciences, or "a branch of study which is concerned either with a connected body of demonstrated truths or with observed facts systematically classified and more or less colligated by being brought under general laws, and which includes trustworthy methods for the discovery of new truth within its own domain." See: *The Oxford English Dictionary*. Second edition, 1989. "science, n.": Oxford University Press. online version June 2011. <http://www.oed.com/view/Entry/172672>; Accessed 19 June 2011. Earlier version first published in New English Dictionary, 1910.

on the *Middle Class*.⁶ Newfield, Professor of English at the University of California, Santa Barbara, presents a sociological and political focus and argues that the public university's goal of providing access to the middle class has suffered as a result of the right wing's campaign to restrict, or end access to higher education through attacks on the university. A different political view is expressed by David Horowitz in his books *The Professors: The 101 Most Dangerous Academics in America* (2007), and *One-Party Classroom: How Radical Professors at America's Top Colleges Indoctrinate Students and Undermine Our Democracy* (2009).⁷ In both of his books, Horowitz claims that politically left-leaning professors are indoctrinating their students instead of helping them to learn to think critically.

The economic aspects of higher education include how institutions of higher education are funded and the relation of higher education to a nation's economy. Through their analysis of historical data, Claudia Goldin and Lawrence F. Katz, Professors of Economics at Harvard University, document the links between education, technological change, inequality, and a nation's economic success in their book, *The Race Between Education and Technology*.⁸ The main point of their book is that the slow down in the growth of human capital in the United States since about 1980 is the fundamental cause of rising wage inequality. Everyone gains when educational and technological advancement are balanced, but when educational advances fall behind, those with a higher level of education reap a greater proportion of the benefits. Goldin and Katz argue that since about 1975, economic inequality has increased because American education has not kept pace with technological advancement.

The sociological aspects of higher education include the role of the university in society, and campus social and work environments for administrators, professors, and students.

6. Newfield, C. 2008. *Unmaking of the Public University: The Forty Year Assault on the Middle Class*. Cambridge, Massachusetts: Harvard University Press.

7. Horowitz, D. 2007. *The Professors: The 101 Most Dangerous Academics in America*. Washington, D.C.: Regnery Publishing.

— . 2009. *One-Party Classroom: How Radical Professors at America's Top Colleges Indoctrinate Students and Undermine Our Democracy*. New York: Crown Forum. David Horowitz, editor of the website *FrontPage Magazine*, is a conservative writer and activist.

8. Goldin, C., Katz, L. F. 2008. *The Race Between Education and Technology*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

A biographical history puts the personal and professional lives of faculty and administrators and their contributions to their institutions in the foreground. While the actions and decisions of faculty, administrators, and students influence the operations of the university, these individual actions emerge from, and are influenced by the multiple aspects of the university environment. Biographical excerpts from the careers of university presidents provide the foundation for Laurence R. Veysey's book, *The Emergence of the American University*.⁹

The philosophy of higher education is concerned in part with what is taught and the methods of teaching. Teaching methods have a close connection to the university's classrooms and other facilities. An example of a book on the philosophy of education is *Democracy and Education: an introduction to the philosophy of education*, by John Dewey (1859-1952), American philosopher and educator, and professor of philosophy at Columbia University. Dewey wrote:

"...education consists primarily in transmission through communication. Communication is a process of sharing experience until it becomes a common possession...as societies become more complex in structure and resources, the need of formal or intentional teaching and learning increases."¹⁰

The legal aspects of higher education include academic freedom and freedom of expression, institutional internal governance, and the hierarchy of local, state, and federal government and law as it relates to higher education. Other legal aspects of higher education include non-discrimination and affirmative action issues, academic custom and usage (campus common law), and the rights and responsibilities of students and student organizations. Richard Kluger's book, *Simple Justice: The History of Brown v. Board of Education and Black America's Struggle for Equality*,¹¹ is a history of the struggle for non-dis-

9. Veysey, L. R. 1965. *The Emergence of the American University*. Chicago: The University of Chicago Press.

10. Dewey, J. 1916. *Democracy and Education: an introduction to the philosophy of education* New York, NY: The Free Press. p. 11.

11. Kluger, R. 1975. *Simple Justice: The History of Brown v. Board of Education and Black America's Struggle for Equality*. New York: Knopf. Prior to writing fiction and social history, Pulitzer Prize winning author Richard Kluger (b. 1934) worked as a journalist with the *Wall Street Journal*, the *New York Post*, and the *New York Herald Tribune*. He was executive editor at Simon & Schuster and editor in chief at Atheneum Publishers.

crimination in higher education. The first chapter in William G. Bowen and Derek Bok's book, *The Shape of the River*, provides historical context for their study of race in college and university admissions.¹²

Our approach to looking at the history of the university in the United States is different. Our analytical method looks at three basic interrelated structures that are common to all universities. The biographical, sociological, philosophical, and legal aspects of the history of higher education are each situated within one or more of these basic institutional structures. Individuals—university presidents, faculty, administrative staff, and students—make important contributions to their institutions, but these individuals alone do not make a university: they are embedded within an evolving system of administrative, intellectual and physical structures. To stress the importance of the relation between the university and the contributions of individual scholars to the production of knowledge, where possible we have introduced those individuals with their institutional affiliation in text and in our footnotes. Historical events in the history of higher education, such as the Dartmouth College case and the Yale Report of 1828, can bring greater insights to the present when viewed in broader analytical context.

One way to frame the interactions between the intellectual, administrative, and physical structures of universities is to think about it in ecological terms. Paul R. Ehrlich and Peter H. Raven, in their study of the reciprocal evolutionary relationships of butterflies and plants, looked at the “patterns of interaction between two major groups of organisms with a close and evident ecological relationship, such as plants and herbivores.” They called their work “a study in coevolution.”¹³

In his explanation of the coevolutionary process, Richard B. Norgaard, Professor of Energy and Resources at the University of California, Berkeley, says, “coevolutionary explanations invoke relationships

12. Bowen, W. G., Bok, D. 1998. *The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions*. Princeton, New Jersey: Princeton University Press. William G. Bowen was President of The Andrew W. Mellon Foundation from 1988 - 2006, and President of Princeton University, 1972 - 1988. Derek Bok is the 300th Anniversary University Professor at the John F. Kennedy School of Government at Harvard University. He is former President of Harvard University and former Dean of Harvard Law School.

13. Ehrlich, P. R., Raven, P. H. 1964. “Butterflies and Plants: A Study in Coevolution”. *Evolution* 18: 586-608.

between entities which affect the evolution of the entities. Entities and relationships are constantly changing, yet they constantly reflect each other ... everything is interlocked, yet everything is changing in accordance with the interlockedness.”¹⁴

Ronald Coase, Professor Emeritus of Economics at the University of Chicago Law School, makes a similar point in critiquing the field of economics:

“What I think is important is that economists don’t study the working of the economic system. [...] In fact the economic system is extremely complicated. [...] But how one part impinges on the other, how they are interrelated, how it actually works – that is not what people study. What is wrong is the failure to look at the system as the object of study.”¹⁵

Our set of three categories of analysis we believe will reveal dynamics of co-evolutionary change in the university, focusing on internal processes while also linking them to the demands of the nation and era.

In Chapter Two, we review other histories of higher education, and provide background on our research approach and the perspectives we’ve taken to look at the history of higher education in the United States as it relates to the origins and nineteenth-century evolution of the nation’s public research universities. We are using an analytical device we call the three structures of the university enterprise: its physical, intellectual, and administrative aspects. These three categories of explanation intertwine and co-evolve and can help us capture the emerging capabilities and challenges faced by universities in our era.

Our history begins in Chapter Three with a detailed examination of the history of Dartmouth College, a private ecclesiastical institution established prior to the Revolutionary War. We describe its important contributions to the origins of the public research university, and the famous Dartmouth case that carried all the way to the U.S. Supreme Court. This court battle set a tone of administrative independence of academic institutions, including in the crucial area of hiring and firing faculty. Our chapter on Dartmouth College intentionally includes a biographical approach in its analysis of the college’s intellectual structure. In this case,

14. Norgaard, R. B. 1994. *Development Betrayed: the end of progress and a coevolutionary revisioning of the future*. New York: Routledge. p. 26.

15. Coase, R., The Ronald Coase Institute. 2002. *Why Economics Will Change*. Remarks at the University of Missouri, Columbia, Missouri, USA, April 4, 2002. (June 2, 2009, <http://www.coase.org/coaseremarks2002.htm>)

a biographical approach contributes substantive detail to the analysis of the relation between Dartmouth's administrative and intellectual structures. In relation to legal battles, the political aspect of the history of higher education has a relation to the administrative structure, and its influence extends to the institution's intellectual and physical structures.

In the introductory pages of Chapter Four, we discuss the precursors to modern public universities, the antebellum denominational colleges. Many of these were taken over by states and became state colleges. Chapter Four also examines the first secular public university to be established in the United States, the University of Virginia. At Thomas Jefferson's request, the obelisk marking his grave identifies three of his accomplishments. He was the author of the *Declaration of American Independence* and the *Virginia Statute for Religious Freedom*. Jefferson also wished to be remembered as the Father of the University of Virginia, which could be considered his most profound and lasting creation.

Chapter Five analyzes one of the major university controversies of the early nineteenth century. It was the debate over what, if any, curricular reform should take place, as summarized by the Yale Report of 1828. This was the first major event in the ongoing "culture wars" regarding curriculum in public schools. Round One went to the conservatives, as will be seen.

Chapter Six looks at the expansion across the land of the state-sponsored public research university system, and efforts by the federal government to generate curricula and research programs that addressed national needs. It includes a discussion of the 1862 Morrill Act, which created the land-grant system of colleges and universities and to this day influences intellectual choices and financial investment in state universities.

In Chapter Seven, we review the history of women's colleges in the US, as well as the history of historically black colleges and universities and institutions of higher education on Indian lands. These colleges faced extra layers of scrutiny and disenfranchisement in the processes of teaching and research.

Chapter Eight turns greater focus on the institutions the federal government developed to meet national research needs given that no federal university could emerge. The National Academy of Sciences, National Research Council, Library of Congress, and other institutions are examined.

Chapters Nine-Part One, and Nine-Part Two bring our history into

the present era with a look at the administrative and intellectual structures of the University of California, one of the public research universities established under the terms of the Morrill Act of 1862. We examine the University's multiple core governing documents in relation to specific administrative actions.

The final chapter, Chapter Ten, provides analyses and scrutiny, and develops recommendations for how to proceed. One way, as will be discussed, is to update the goals of the Morrill Act itself so that the existing funding and reporting mechanisms can meet twenty-first century challenges and goals.

Our broadest purpose is to not let our era be the era of decline in the public research university, at least not without a fight. We have studied the multi-century commitment that governments and peoples have made to organized higher learning, and the remarkable and indelible benefits in the emergence of humanity. We see public research universities as central to defining and overcoming the difficult challenges that lie ahead. And we see public support both for the unrestricted elements of university life and for targeted research and teaching to address known problems of national and global importance to be essential to meeting the challenges we face.

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CHAPTER 2

The Three Fundamental Structures of Higher Education — Administrative, Intellectual, and Physical

“Rise up against these extremist religious bigoted forces and secure the future of the present and future generations.”¹

The university, the single human institution with the capacity and resources to unite all branches of intellectual inquiry, remains a crucial social institution. Its influence is felt at all scales of human experience, from the individual and personal to the public and global. In the United States, the public university is integral to civil government in both preparing individuals for the responsibilities of citizenship and in helping governments evaluate and undertake courses of action. With these crucial roles come corresponding duties to society: to spend public resources wisely in the roles of teaching and research. And in turn, to enable the university to fulfill these functions, government and, more broadly, society, must provide appropriate conditions to the university: financial resources and intellectual freedom. The implementation of these mutual obligations and expectations is an evolving challenge that recognizes each era’s available resources and intellectual needs.

The university was not always so universal in its engagement with

1. BBC News. 2007. “Anti-madrassa protest in Pakistan”. Published: 2007/04/05. (April 25, 2007 http://news.bbc.co.uk/go/pr/fr/-/2/hi/south_asia/6530935.stm). The Human Rights Commission of Pakistan and many other non-governmental organizations issued a public statement urging people to “rise against these extremist religious bigoted forces and secure the future of the present and future generations,” in response to actions taken by students from Jamia Hafsa Madrasa, a religious school for women attached to the Lal Masjid Mosque in Islamabad. According to BBC News, the students were “harassing and terrorizing ordinary citizens of Pakistan in the name of Islam,” halted government attempts to remove a mosque that was constructed without permission from authorities, occupied a children’s library, and abducted a woman whom they accused of operating a brothel. Hundreds of Pakistani human rights activists staged a public protest against the Madrasa and asserted that it promoted “intolerance and violence.”

and development of fields of knowledge. Rashdall Hastings (1858–1924), philosopher, theologian, and author of *The Universities of Europe in the Middle Ages*, opens his discussion on the definition of a university with the Latin term *universitas*. Historically a university is not an institution where all branches of knowledge are represented. He writes, “A glance into any collection of medieval documents reveals the fact that the word ‘university’ means merely a number, a plurality, an aggregate of persons.”² The Oxford English Dictionary (OED) takes a more modern perspective:

“The whole body of teachers and scholars engaged, at a particular place, in giving and receiving instruction in the higher branches of learning; such persons associated together as a society or corporate body,³ with definite organization and acknowledged powers and privileges (esp. that of conferring degrees), and forming an institution for the promotion of education in the higher or more important branches of learning.”⁴

2. Rashdall, H. 1936. *The Universities of Europe in the Middle Ages*. London: Oxford University Press. Edited by F.M. Powicke and A.B. Emden. See Volume I, “Salerno, Bologna, Paris”, pp. 4-7.

3. Note: “The form of the modern business corporation originated in a fusion of the type of commercial association known as the joint-stock company, which was in fact a partnership, and the traditional legal form of the corporation as it had been developed for medieval guilds, municipalities, monasteries, and universities.” Excerpt from: *Encyclopedia Britannica*. Anon. 2007. “corporation” *Encyclopædia Britannica*. : *Encyclopædia Britannica Online*. 12 Dec. 2007, <<http://search.eb.com/eb/article-9026395>>.

4. *The Oxford English Dictionary*. 1989 2nd ed.-d. “university, n.”: OED Online. Oxford University Press. 27 Aug. 2005 <http://dictionary.oed.com/cgi/entry/50267851>.

Many scholars with an interest in the history of higher education in the United States distinguish a difference between a “university” and a “college.” The Oxford English Dictionary provides extensive definition and explication for the term “college”. A college is “an organized society of persons performing certain common functions and possessing special rights and privileges; a body of colleagues, a guild, fellowship, association.” It can be either religious or secular. It is a “society of scholars incorporated within, or in connexion with, a University, or otherwise formed for purposes of study or instruction; an independent self-governing corporation or society (usually founded for the maintenance of poor students) in a University, as the College of the Sorbonne in the ancient University of Paris, and the ancient colleges of Oxford and Cambridge.” The OED also says that “from the fact that in some Universities only a single college was founded or survived, in which case the university and college became co-extensive, the name has come, as in Scotland and the United States, to be interchangeable with ‘university’; ‘a college with university functions’. In the United States, the term ‘college’ ‘has been the general term, and is still usually applied to a small university (or degree-giving educational institution) having a single curriculum of study, the name ‘university’ being given chiefly to a few of the larger institutions, which in their organization, and division into various faculties, more resemble the universities of Europe.” —. 1989 2nd ed.-e. “college”: Oxford University Press. OED Online. 15 May 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50043960>.

Historians of higher education in the United States look at political, sociological, biographical, philosophical, or legal aspects of the corporate body of scholars defined as a university. In their book, *The Law of Higher Education*, Kaplin and Lee illustrate the external law that circumscribes the internal law of higher education as a series of concentric circles with the internal law of the college or university at the center surrounded by state common law, state and local administrative regulations, state and local statutes and ordinances, state constitutions, federal administrative regulations, federal statutes, and finally the federal constitution.⁵ In *The Development of Academic Freedom in the United States*, Richard Hofstadter and Walter P. Metzger, Professors of History, Columbia University, follow the history of academic freedom and its relation to the administrative structure of higher education from its European origins, through the founding of Harvard College and the governance of the colonial and the antebellum denominational colleges, to the establishment of the AAUP in the early twentieth century. Their analytical history of this crucial legal aspect of higher education is built on a biographical and sociological foundation. Their intent is “to shed new light on the history of the academic man and the complex circumstances under which he has done his work,” and to discover “what freedom has meant to successive generations of academic men,” and what factors in academic life “have created and sustained it.”⁶ Hofstadter and Metzger follow philosophical, social, and political influences that led to the emergence of the principle of academic freedom. These background influences include “educational policies of religious denominations, the history of theological controversies, the rise of Darwinism in American thought, and the relation between men of business and men of learning.”⁷ Our approach looks instead to the in-

5. Kaplin, W. A., Lee, B. A. 2007. *The Law of Higher Education : a comprehensive guide to legal implications of administrative decision making (4th ed.) Student Version*. San Francisco Jossey-Bass. See: Figure 1.2: The External Law Circumscribing the Internal Law, on pg. 4. William A. Kaplin is Research Professor of Law at Catholic University of America, Columbus School of Law. Barbara A. Lee is Professor of Human Resource Management in the School of Management and Labor Relations at Rutgers University, where she teaches courses in higher education law.

6. Hofstadter, R., Metzger, W. P. 1955. *The Development of Academic Freedom in the United States*. New York: Columbia University Press.

7. *Ibid.* p. x.

ternal authority of the university's governing administrative structure over its intellectual structure as a primary source for the suppression or advancement of academic freedom.

Edwin D. Duryea, Professor of Higher Education at the University at Buffalo/SUNY, looks closely at the legal aspects of higher education in his book, *The Academic Corporation: A History of College and University Governing Boards*.⁸ His exclusively legal history of higher education examines the origins and evolution of the corporate form of college and university governance. Duryea's history is not biographical, but individual contributions to the evolution of the governance of higher education are recognized where appropriate.

John A. Douglass, Senior Research Fellow at the Center for Studies in Higher Education at the University of California, Berkeley, says, "historians of American higher education have, in general, concentrated on institutional histories, or general surveys on the development of the nation's colleges and universities." The edited anthology can be a type of historical survey. In their book, *American Higher Education Transformed 1940-2005: Documenting the National Discourse*, Wilson Smith, Professor Emeritus of History at the University of California, Davis, and Thomas Bender, Professor of History at New York University, present a collection of documents that stresses "the curriculum and the ideal of liberal learning in an age of mass education, the position and leadership of universities in society, the role of the federal government, including its courts, and academic life as a profession."⁹ Douglass identifies Laurence R. Veysey's book, *The Emergence of the American University*, a study of higher education in America between 1865 and 1910, as an example of the survey approach to history.¹⁰

In the preface to his book, Veysey (1933-2004), Professor of History at the University of California, Santa Cruz, states that the main inter-

8. Duryea, E. D. 2000. *The Academic Corporation: A History of College and University Governing Boards*. New York: Falmer Press.

9. Smith, W., Bender, T., eds. 2008. *American Higher Education Transformed, 1940-2005: Documenting the National Discourse*. Baltimore: The Johns Hopkins University Press. Quoted text from preface.

10. Douglass, J. A. 1996. "Californians and Public Higher Education: Political Culture, Educational Opportunity, and State Policymaking" in Geiger R., ed. *History of Higher Education Annual: 1996*. Piscataway, New Jersey: Transaction Publishers. Quote excerpted from Note 3, p. 98.

est of his study is “an exploration of the connections between a variety of thoughtful men and the institution which sustained them.”¹¹ In his mainly biographical and sociological survey, Veysey discusses the evolution of university administrative structure in terms of the men who occupied executive positions:

“Academic administration came into being in two distinct stages. The first occurred in the late sixties and seventies, when Andrew D. White, Charles W. Eliot, and James B. Angell came to power. Eliot and Angell, especially, represented a new style of worldly sophistication so far as academic executives were concerned ... The second stage of administrative growth began during the early nineties; it has never stopped. These were the years when William R. Harper forged the new University of Chicago and when Nicolas Murray Butler began to influence events at Columbia; placed beside Harper and Butler, Angell and Eliot in turn seemed old-fashioned almost overnight.”¹²

In a 1966 letter to the editors of the *History of Education Quarterly*, Veysey reveals the philosophical foundation of his book and says that “the main point of the book is to explore whether, in its formative period, the American university stood any real chance of developing into a haven for the life of the mind (as distinct from narrowly technical or ornamentally social pursuits), and if so, a haven for what version of the life of the mind?”¹³

Veysey frequently refers to Edwin Emery Slosson’s 1910 survey of higher education, *Great American Universities*, a collection of fourteen institutional histories.¹⁴ To reach his goal to find out “what our leading universities are now doing,” Slosson (1865-1929), Professor of Chemistry at the University of Wyoming, chose to compare fourteen

11. Veysey, L. R. 1965. *The Emergence of the American University*. Chicago: The University of Chicago Press. Quote is from the book’s preface, p. ix. This well-known book by Laurence R. Veysey (1933-2004) is a distillation of his approximately 1300-page doctoral dissertation in history submitted at the University of California, Berkeley, in 1961.

12. *ibid.* pp. 305-306.

13. Veysey, L. R., Broudy, H. S., Palmer, J. R. 1966. Replies. *History of Education Quarterly* 6: 105-107. p. 105.

14. Slosson, E. E. 1910. *Great American Universities*. New York: The Macmillan Company. See the author’s preface, p. vii -ix. Edwin Emery Slosson was professor of chemistry at the University of Wyoming and chemist at the Wyoming Agricultural Experiment Station from 1891 to 1903. From 1912 he was associate on the faculty of the school of journalism, Columbia University. See also: —. 1921. *The American Spirit in Education: A Chronicle of Great Teachers*. New Haven: Yale University Press. *The American Spirit in Education* is a thematically-organized history of higher education in the United States.

American universities: nine privately-controlled institutions and five publicly-controlled state institutions. Slosson states that these fourteen institutions were selected because they had been ranked highest in terms of annual expenditures on instruction in a list prepared by the Carnegie Foundation for the Advancement of Teaching. The concluding chapter of Slosson's book provides an interesting assortment of statistical comparisons of the fourteen universities, including the total number of students registered in fall 1909; the age of the universities in 1909; number of living alumni; graduates in medicine and engineering; doctorates conferred at each institution from 1898 to 1909; total number of volumes in the libraries; and many other points. These data sets are not correlated and therefore provide only partial answers to the author's research question. The author does not discuss the difference between the governance structure of a private and a public institution and does not compare the administrative structures of his fourteen chosen institutions. His chapter on Harvard contains this ambiguous statement: "From a State university it has become national, and is now one of the leaders of the new international movement..."¹⁵ We assume the author is referring to the reach of Harvard's influence: in terms of its governance structure, Harvard is not a state or a national institution.

Donald G. Tewksbury's 1932 doctoral dissertation, *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*,¹⁶ was written to fulfill what he saw as a need for a general survey of the founding of American colleges and universities. The title reveals the dissertation's focus on the role of religion in higher education in the United States prior to the Civil War, but Tewksbury states that his intent was to "sketch some of the larger features of the general movement for the founding of colleges in the period before the Civil War, and to present a body of factual material bearing on the colleges that were founded on a permanent basis during this formative period

15. —. 1910. *Great American Universities*. New York: The Macmillan Company. pg. 8.

16. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). Donald G. Tewksbury (1894-1958) was a student, professor, and administrator at Teachers College, Columbia University.

of our national life.”¹⁷ Tewksbury informs his readers that the financial aspects of higher education, women’s colleges, “manual labor institutions,” and the development of college governance boards are not included in his survey.¹⁸

In the preface of his book, *The American College and University: A History*, published in 1962, Frederick Rudolph, Professor Emeritus of History at Williams College, says, “I have ... tried to create a volume to which any American might turn for an informed answer to the question, “How and why and with what consequences have the American colleges and universities developed as they have?”¹⁹ In his thematically organized survey of the history of higher education, Rudolph mentions the intellectual, administrative, and physical structures of American colleges, but these structures are secondary to his sociological, biographical, philosophical, and political approach to university history. His conversational narrative, sprinkled with entertaining anecdotes, begins with a chapter on the colonial college and the founding of Harvard, and includes additional thematic chapters on “The College Movement,” “The Religious Life,” “Financing the Colleges,” “The Education of Women,” “The Academic Man,” and “The Rise of Football.” Within his chapter on “The Elective Principle,” which prominently features a biographical account of President Charles Eliot’s role in the introduction of the elective system at Harvard,²⁰ rests a very brief mention of that system’s impact on the intellectual and physical structures of universities:

“For the elective program, in order to be effective, required an immediate and expensive expansion in faculty staff, laboratories, and libraries...”²¹

David Madsen, Professor Emeritus of Higher Education, University

17. Ibid. pg. 2.

18. Ibid. See footnote pg. 2.

19. Rudolph, F. 1962. *The American College and University: A History*. New York: Alfred A. Knopf. p. viii.

20. “As a philosophy of undergraduate education the elective system is indelibly associated with Charles W. Eliot, who instituted it and defended it during his forty-year presidency of Harvard (1869-1909).” Quote from: Geiger, R. L. 1986. *To Advance Knowledge: The Growth of American Research Universities, 1900-1940*. New York and Oxford: Oxford University Press. Chapter I: The Shaping of the American Research University, 1865-1920. p. 5.

21. Rudolph, F. 1962. *The American College and University: A History*. New York: Alfred A. Knopf. p. 300.

of Washington, reviewed Rudolph's book and notes the book's recognition of the contributions of nineteenth-century university presidents, and its emphasis on the relation of higher education to social and political issues. Madsen comments critically on the author's use of "the selection of the dramatic, sometimes absurd, even bizarre example to illustrate a point."²² We agree, and have selected a passage from the book to illustrate this characteristic of Rudolph's style. To provide an answer to the question he poses about the how and why of the relations between the university president, the faculty, and the governing board, in his chapter titled "The Academic Balance of Power," Rudolph begins his discussion with a splendid story:

"Yet, the era of the colleges was in many ways the era of the professor, as it was the era of other simple and somewhat romantic figures—the steamboat captain, the Yankee peddler, the southern senator. The era of the colleges was the era of Professor George Blaetterman, the German-born professor of languages at the University of Virginia, who in the past had been subjected to stonings by his students and who in 1840 was dismissed from the Virginia faculty after having twice during the previous week beaten his wife, once on the public road. It was also the era of his perplexed successor, a Hungarian wanderer, Charles Kraitser, who was also dismissed. Said Kraitser, whose overpowering wife often turned him out of the house at night: "The Board of Visitors ... were gentlemen whom it was hard to please. They had kicked Dr. Blaetterman out because he had whipped his wife, and they have kicked me out because I have been whipped by my wife. What did they really want?"²³

Yet the book proceeds more in a narrative than an analytical form, which differs from our intention here.

In his introduction to his book, *A History of American Higher Education*, John R. Thelin, University Research Professor in the College of Education at the University of Kentucky, says that his "approach is to consider key historical episodes that have enduring implications for colleges and universities. Emphasis will be on the social, political,

22. Madsen, D. 1963. Reviewed work: *The American College and University: A History* by Frederick Rudolph. *History of Education Quarterly* 3: 173-176. Quote from p. 175. Madsen's Ph.D. dissertation submitted at the University of Chicago, Dept. of Education, September, 1961, is titled: *History of an idea: the University of the United States*.

23. Rudolph, F. 1962. *The American College and University: A History*. New York: Alfred A. Knopf. p. 157. Rudolph cites Philip Alexander Bruce: *History of the University of Virginia, 1819-1919* (New York, 1920-2), II, 159-62.

and economic factors that have shaped the structure and life of higher-education institutions.”²⁴ In opposition to Thelin’s objective to look at societal pressures on institutions of higher education, we are focusing on the capacity of public universities to address clearly-articulated problems of national importance as well as to identify and define emerging problems across the spectrum of intellectual endeavor. Thelin also wants us to know that his book “is, in essence, an attempt to acknowledge [Frederick] Rudolph’s work—not in the sense of being an imitation but rather in an effort to try my own hand and to carry out some suggestions made in the introductory essay I wrote in 1990 as part of a reissue of his influential book.”²⁵

Lawrence A. Cremin (1925-1990), Professor of Education at Teachers College, Columbia University, and President of Teachers College from 1974-1984, wrote a three-volume history of education in America that includes sections on higher education. His first volume is titled *American Education: The Colonial Experience, 1607-1783*, and the second volume is *American Education: The National Experience 1783-1876*. In a chapter section titled “Institutions” in *The National Experience*, Cremin provides an abbreviated survey of nineteenth-century higher education, including short summaries of the Dartmouth College case (focusing on administrative structure) and the Yale Report of 1828 (which focuses on intellectual structure), before launching into a discussion of the educational value of newspapers. Laurence Veysey reviewed Cremin’s third volume in the series, *American Education: The Metropolitan Experience, 1876-1980*.²⁶ Of this third volume, Veysey says “there is more effort to provide some serious social history and less reliance on the scattershot inclusion of biographies of educational

24. Thelin, J. R. 2004. *A History of American Higher Education*. Baltimore: The Johns Hopkins University Press. p. xxi.

25. *ibid.* p. xix.

26. Cremin, L. A. 1970. *American Education: The Colonial Experience 1607-1783*. New York: Harper & Row, Publishers, Inc. —. 1980. *American Education: The National Experience 1783-1876*. New York: Harper & Row, Publishers, Inc. —. 1988. *American Education: The Metropolitan Experience, 1876-1980*. New York: Harper and Row. Lawrence Arthur Cremin was the seventh president of Teachers College, Columbia University. He joined the faculty at Teachers College in 1949 and spent his entire professional career there.

leaders.”²⁷ Frederick B. Tolles, Professor of History at Swarthmore College, reviewed Cremin’s *The Colonial Experience*, and wrote that Cremin “is a knowledgeable historian who is aware of nearly everything that has been written in American social and intellectual history ... one has the sense here that one is reading about colonial education as a part of this complete social environment.”²⁸

Another commonly mentioned general history of higher education is Charles Franklin Thwing’s 1887 book, *The American College in American Life*.²⁹ Thwing, who was President of Western Reserve University (the predecessor to Adelbert College, now Case Western Reserve University), approaches a history with a sociological, institutional, and biographical basis. His focus is on Harvard, Yale, and Princeton and the presidents that led these institutions. He states: “It is, I think, generally confessed that Harvard has attained a genuine leadership in American education. This leadership has been secured largely through the efficiency of its President.” Thwing expresses a strong interest in the social benefits of higher education:

“... the influence of the American College has constantly enlarged in these two hundred and fifty, and more, years. It began as an institution for training ministers; it next became an agency for training citizens; and then, broadening its purpose, it was content with nothing less than training men for complete living.”³⁰

An atypical example is an informative short history of Vassar College by Margaret Sherwood (1864-1955), Professor of English Literature at Wellesley College.³¹ Information on each aspect of Vassar

27. Veysey, L. 1990. Review of: *American Education: The Metropolitan Experience, 1876-1980*, by Lawrence Cremin. *The American Historical Review* 95: 285. Quote from page 285.

28. Tolles, F. B. 1972. Review of: *American Education: The Colonial Experience, 1607-1783*, by Lawrence A. Cremin. *The American Historical Review* 77: 198-200. Quoted text appears on pp. 198-199.

29. Thwing, C. F. 1897. *The American College in American Life*. New York: G. P. Putnam’s Sons.

30. Ibid. Quote from page 35.

31. Sherwood, M. 1900. *Vassar College, 1861, Poughkeepsie* [in Chapter 6: Universities and Colleges for Women]. *The University of the State of New York: History of Higher Education in the State of New York*, by Sidney Sherwood. Contributions to American Educational History No. 28. (United States Bureau of Education, Circular of Information No. 3, 1900), Series Editor: Herbert B. Adams. Washington, D.C.: Government Printing Office. pp. 446-465.

College is organized under subtitled sections. There are summaries of the administrative and physical structures and many pages of detailed information about the intellectual structure (lists and descriptions of courses offered for each year of instruction). Included are a short background history of the college, subtitled “How it came into being;” a brief section on Vassar’s charter; a description of the “organization,” or administrative structure of the college; and a short discussion of the college buildings and property, including a comment that the library did not have a separate building, but occupied “a large room in the main building.” Sherwood’s brief history of Vassar could have been improved with more detail on the administrative structure, in particular, the mechanism for replacing vacancies on the board of trustees. We are told only that the first twenty-nine trustees were appointed by Mr. Vassar. More detail on the mechanism for appointment and replacement of trustees would help us understand how closely linked the intellectual future of Vassar has been to immediate political needs, alumnae interests, or other motivations.

THE THREE STRUCTURES: INTRODUCTION AND DEFINITION

To arrive at a deeper understanding of today’s relationship between government, society, and the public research university, in subsequent chapters we review its history in the colonies and the United States up through the close of the nineteenth century. We’ve chosen this era because it covers the period of formation of public research universities, including their physical, administrative, and intellectual aspects. The job of this chapter is to introduce these three aspects, which we call structures. We define structure to be the organized combination of parts or elements and how they interrelate.³² Each of these three structures – physical, administrative, and intellectual – is a combination of elements ranging from physical objects to ideas to governing regulations. Each has its own characteristics, including forms of governance.

By physical structure we mean the physical plant of the university:

32. *The Oxford English Dictionary*. 1989 2nd ed.-i. “structure, n.”. OED Online. Oxford University Press. 10 Jan. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50239737>. “structure, n., 7. An organized body or combination of mutually connected and dependent parts or elements.”

its buildings and open spaces, including classrooms, offices, laboratories, eateries, and dormitories, and how everything is oriented in the landscape. Other elements include campuses, buildings, roads and footpaths, courtyards, pavilions, and lawns. There is direct engagement between students, faculty, staff, and visitors and the physical structure of the university. A comprehensive spatial overview of a university's physical structure is accessible through maps; the relationships between buildings are represented by architectural plans and other site plans and development documents. Historical information on the physical structure of universities in the U.S. has proven the most challenging to acquire, so here we draw upon more general discussions of the physical evolution of the university.

By administrative structure, we mean how the university is managed and operated, including decisions on planning and budgeting, and its sources of funding. The layers of offices and departments and the people working within them can be communicated through charts and diagrams. Administrative regulations and policies, such as codes of conduct and graduation requirements, are ordered and hierarchical. The adjective "administrative" is defined by *The Oxford English Dictionary* as "pertaining to, or dealing with, the conduct or management of affairs." To "administer" is to manage, as a steward, the affairs of an office or an institution.³³

The university's intellectual structure is the mutually connected and dependent branches of knowledge that engage the intellect and require the exercise of understanding. It includes the interlinkings between these dependent branches of knowledge and the processes that lead to the creation of knowledge. By intellectual structure we also mean the organization of knowledge into disciplines and broader areas of enquiry (natural, physical, and social sciences; arts; humanities; and professional disciplines such as medicine and law). The biology of a Eukaryotic cell can help us understand the intellectual structure of the university. Eukaryotic cells contain multiple internal structures—organelles. Each of these internal structures is separated from the cell's

33. —. 1989 2nd ed.-g. "administrative, a.": OED Online. Oxford University Press. 19 Feb. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50002842>. —. 1989 2nd ed.-h. 'administer, v.': OED Online. Oxford University Press. 16 June 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50002830>.

cytoplasm by its own membrane, and each operates interdependently to sustain the cell. Like the Eukaryotic cell, the university's intellectual structure is comprised of many separate parts. Each part, e.g., academic divisions and departments, has a permeable membrane-like boundary that separates it from other parts of the institution's broadest intellectual structure. These boundaries provide definition for each of the separate parts, but also permit each to interact with other parts of the intellectual structure and with the administrative and physical structures of the university. A person cannot walk through and around the intellectual structure as if it were a composition of three-dimensional buildings and lawns; nevertheless, academic divisions and departments—the branches of intellectual inquiry, their scholars, and their curricula—are an organized arrangement of interconnected elements. Fritjof Capra, physicist, in his explanation of systems science, says "systems thinking was pioneered by biologists, who emphasized the view of living organisms as integrated wholes...the properties of the parts are not intrinsic properties but can be understood only within the context of the larger whole."³⁴

Each of these structures—physical, administrative, and intellectual—profoundly influences and is co-determined by the other two. Here are two examples. In the simple but crucial task of scheduling classes, the physical structure of a university determines how many lectures that are attended by either large or small numbers of students, seminars, and laboratory classes will be offered. The administrative structure determines who will decide on the content and organization of the courses and how much funding there will be for teaching assistants and other resources. The intellectual structure determines the content of courses and how each course relates to a broader area of knowledge represented by majors. Similarly, in a new research endeavor, the university's physical structure (locations and width of hallways; availability of somewhat

34. Capra, F. 1996. *The Web of Life: a new scientific understanding of living systems*. New York: Anchor Books. pp. 17, 37. Capra received his Ph.D. in theoretical physics from the University of Vienna in 1966. He did research in particle physics at the University of Paris (1966-68), the University of California at Santa Cruz (1968-70), the Stanford Linear Accelerator Center (1970), Imperial College, University of London (1971-74), and the Lawrence Berkeley Laboratory at the University of California (1975-88). He also taught at U.C. Santa Cruz, U.C. Berkeley, and San Francisco State University. See: <http://www.fritjofcapra.net/resume.html> (Accessed: January 26, 2014).

quiet seating areas near coffee carts; proximity of departments to each other) combines with the administrative structure (incentives and rewards for collaboration outside departments) to influence the intellectual structure of the new collaboration. The intellectual structure will include the research methods, principles for distinguishing between important and unimportant details, topic of study, and goals of study. In both research and teaching, the physical, administrative, and intellectual structures co-create the experience of higher education and shape the university's zone of intellectual capacity.

Another example of the interaction between the administrative and intellectual structure is found in the relation between the university's source of financial support and its source of intellectual direction. The university's sources of funding can influence its intellectual direction.

We are acutely aware, and hope to convince the reader, that major aspects of the university are mutually dependent mixes of these three structures and their multitude of parts. We need to appreciate how they are mixed in order to make good decisions about how each, and the university as a whole, will be governed.

THE GOALS AND MEASURE OF ACADEMIC ADMINISTRATION

The administrative structure of a university is not brought into existence from scratch when a university is established. Rather, it takes forms related to existing organizations and law at the time and place of a university's establishment. Familiar forms are adapted to meet the needs of a new university. Institutionalists would argue that administrative structure takes forms that are efficient in achieving the goals of the organizers. While academic administration has some financial goals that can readily be associated with efficiency, it has other goals related to the production, transmission, and preservation of knowledge for which the efficiency concept is too restrictive. The broader goal is duty and service-oriented, at which point cost accounting, which is concerned only with the collection, processing, and presentation of financial and quantitative data to determine the cost of the institution's operations,³⁵ becomes only a par-

35. 2008. "cost accounting" in Law J., Smullen J., eds. *A Dictionary of Finance and Banking*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 November 2011. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t20.e5355>.

tial measure of success. Services include teaching hospitals and clinics, provision of museums, and cultural events (visual and performing arts, sports, public lectures). The duty of academic administration is to assure the transfer of knowledge and a respect for learning between generations.

The challenge of university administration is not new. Traditionally, the English universities of Oxford and Cambridge were autonomous bodies, incorporated guilds of masters. The first colleges in England were student boarding homes that were constructed and endowed by a benefactor, often ecclesiastical. Eventually teaching took place in these colleges, the governance and policies of which were determined by the college's founder. After the Reformation, many educational institutions that had been governed by churches were placed under the control of incorporated bodies of trustees. The trustees were responsible for the continuation of the institution and its policies. This form of university governance transferred to colonial North America where colleges were placed under the direction of ministers and civil officers. According to Edward H. Reisner, Professor of Education, Teachers College, Columbia University, the administrative structure of Harvard College, which was established to train Congregational ministers, followed the examples of the University of Geneva, established in 1559 by John Calvin, and the University of Edinburgh, which was established by royal charter from James VI in 1582, and modeled its administrative structure on that of Geneva. Harvard's administrative structure was more directly based on that of Emmanuel College of the University of Cambridge, which had adopted Geneva's form of administrative structure. Both Geneva and Edinburgh were governed by civil magistrates with advice from ministers. These administrators were considered "safe persons, who represented the standing civil and ecclesiastical order."³⁶ Another historian explains that Harvard's administrative structure resembled the autonomous English model at its founding in 1636, but changed gradually from a self-governing body consisting of a president, a treasurer, and five tutors, to governance by a non-resident board.³⁷

36. See: Reisner, E. H. 1931. The Origin of Lay University Boards of Control in the United States. *Columbia University Quarterly* 23: 63-69. Edward H. Reisner was Professor of Education at Teachers College, Columbia University.

37. Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. See Chapter 11,

At its founding in 1701, Yale College (now Yale University) was governed by a board made up of ten ministers.³⁸ Yale's president did not sit on the governing board until 1745. Despite some degree of autonomy given to faculty, the legal authority of most other North American colonial colleges rested with an exterior board of governance, often to provide ideological oversight of these institutions by sponsoring Christian denominations.³⁹

MODELS OF ADMINISTRATIVE STRUCTURE

Existing organizations that provided models of administrative structure to universities established in the North American colonies, and later, the United States, included churches, civil government, and political parties. Like the university, these organizations had public service goals, physical infrastructure, financial obligations, and roles in public interaction, communications and archiving data. Civil government, political parties, churches, and universities all require private and/or public financial support. Although the names of subsets of the overall organization are different—diocese, Presbytery, synod, School—the earlier approaches to administrative structure clearly presage what emerged in academia.

Models of ecclesiastical polity

Church governance, or ecclesiastical polity, is the system by which the whole body of members of a particular organized Christian society is ruled by religious authority, usually administered by a set of clerical officers.⁴⁰ The Church of England (or Anglican Church) was estab-

"The American Response to the Enlightenment," chapter subsection, "Control of Higher Education," esp. p. 318.

38. Yale University. 1976. *The Yale Corporation, Charter and Legislation*. Printed for the President and Fellows. Includes: *Act for Liberty to Erect a Collegiate School, 1701*. (October 31, 2011 http://www.yale.edu/secretary/Charter_Legislation.pdf). Page 4.

39. Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. See Chapter 11, "The American Response to the Enlightenment," chapter subsection, "Control of Higher Education," p. 318.

40. The Oxford English Dictionary. 1989 2nd ed.-a. 'church, n.': OED Online. Oxford University Press. 28 Aug. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50039530>. The verb "to govern" means to rule with authority; to direct and control the actions and affairs of the people. —. 1989 2nd ed.-b. "govern, v.": OED Online.

lished in North America by royal order in 1606 and spread along the Atlantic coastline. The hierarchical governing structure of this church has distinct orders of clergy, with the king or queen of England as the supreme head of the church. In colonial Virginia, the royal governor was the highest governmental official in the established Anglican Church. At the top of the clerical order, below the crown or royally appointed governor, are the archbishops, and under those are bishops. A bishop governs a diocese, overseeing the territory or district under his care. The priest, who administers the sacraments to the community of believers, is below the bishop. The deacon, at the lowest level of the governing hierarchy, assists the priest.

Seventeenth-century Virginia was divided into parishes, each with a church or chapel and its associated housing and glebe lands to support the local Anglican minister. The minister had to be ordained by an English bishop, approved by the colonial governor, and selected by the local vestry. A vestry is an administrative body elected by the local congregation.⁴¹

The Presbyterian Church, which originated in the Protestant Reformation, established its presence in North America with the founding of the Presbytery of Philadelphia in 1706. With the Westminster Confession of Faith as its creed, this Christian denomination has a strongly defined hierarchical structure that reaches from the congregation of a particular church at the lowest level, to the General Assembly at its apex. An administrative authority called a session, which consists of elders, or Presbyters, and is moderated by the congregation's pastor, governs each Presbyterian congregation. Congregations within a region are organized into Presbyteries. A Presbytery is a governing body made up of ordained ministers from the region and elders from each congregation. Selected members of these Presbyteries sit on a Synod, which governs the Presbyteries in a defined region. Above the Synod is the General Assembly,

Oxford University Press. 13 Sept. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50097290>.

41. See: McConnell, M. W. 2003. "Establishment and disestablishment at the founding, part I: establishment of religion". *William and Mary Law Review* 44: 2105-2208. Michael W. McConnell is Professor of Law at the University of Utah, and Judge, 10th U.S. Circuit Court of Appeals. In email correspondence with the authors (August 29, 2007), McConnell admitted that he has not completed part II, which will focus on disestablishment of religion.

which governs the entire organization and is the final authority on all doctrinal and policy matters in the Presbyterian Church.⁴²

In contrast to the centralized hierarchical governance structure of the Anglican and Presbyterian churches, the governance of the Congregational Church is decentralized. The North American branch of this church has its roots in the English Separatists of early Massachusetts and the Plymouth colony.⁴³ Congregationalism has no fixed creed, all members of the congregation hold equal rights, and each autonomous congregation sees itself as being responsible to God and does not look to an external human authority outside the local church for guidance. The OED explains that in the New England colonies, a “congregation” was the community of a settlement, town, or parish with a particular place of worship, as distinguished from the ‘church’, or body of communicants. Congregationalists favored religious and civil liberty.⁴⁴ However, Edwin D. Duryea writes that the charter of Yale University, which was founded by Congregational ministers, “favored clerical control of boards in order to assure that ‘proper’ beliefs and values permeated their campuses.”⁴⁵

In seventeenth- and eighteenth-century colonial North America, the Christian Church was an integral part of the administrative structure of civil government and higher education. The Christian Church was

42. See: Mead, F. S., Hill, S. S. 2001. *Handbook of Denominations in the United States, 11th Edition*. Nashville: Abingdon Press. pp. 291-299; Cooper, J. C. 1986. “Congregational Churches”. Pages 220-221 in Gentz W. H., ed. *The Dictionary of Bible and Religion*. Nashville: Abingdon Press. pp. 837-839; and Lynch, J. 2005. “Church: Church Polity” in Jones L., ed. *Encyclopedia of Religion* [Vol. 3 of 15. 2nd ed.]. Detroit: Macmillan Reference USA. pp. 1763-1770. Gale Virtual Reference Library. Thomson Gale. UC Santa Cruz. 19 Feb. 2007. For a detailed description of the governance of the Presbyterian Church in the United States, see: The Office of the General Assembly of the Presbyterian Church. 2005. *The Constitution of the Presbyterian Church (U.S.A.), Part II, Book of Order 2005-2007*: The Office of the General Assembly, 100 Witherspoon Street, Louisville, Kentucky, 40202. www.pcusa.org/oga/publications/boo05-07.pdf. Accessed: August 30, 2007.

43. In the sixteenth century, the Separatists advocated separation from the Church of England rather than reform.

44. 2010. “Congregationalism”. *Encyclopaedia Britannica*, Encyclopædia Britannica Online. 2010. Web. 6 Apr. 2010 <<http://search.eb.com/eb/article-9109451>>. Cooper, J. C. 1986. “Congregational Churches”. Pages 220-221 in Gentz W. H., ed. *The Dictionary of Bible and Religion*. Nashville: Abingdon Press. *The Oxford English Dictionary*. 1989 2nd ed.-c. “congregation”: OED Online. Oxford University Press. 27 Aug. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50047324>.

45. Duryea, E. D. 2000. *The Academic Corporation: A History of College and University Governing Boards*. New York: Falmer Press. p. 84. See also pages 90-92.

separated from civil government, and ultimately from public higher education, with the ratification of the First Amendment to the Constitution of the United States in 1791.⁴⁶ The protection of religious freedom under the First Amendment was extended to the states in 1868 with the adoption of the Fourteenth Amendment, which says: “no State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States.” In *Murdock v. Pennsylvania* (1943), the Supreme Court said: “The First Amendment, which the Fourteenth makes applicable to the states, declares that ‘Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.’”⁴⁷ In the case of *Everson v. Board of Education* (1947), the Supreme Court held that the First Amendment’s Establishment Clause was applicable to the state governments and said:

“The ‘establishment of religion’ clause of the First Amendment means at least this: neither a state nor the Federal Government can set up a church. Neither can pass laws which aid one religion, aid all religions, or prefer one religion over another. Neither can force nor influence a person to go to or to remain away from church against his will or force him to profess a belief or disbelief in any religion. No person can be punished for entertaining or professing religious beliefs or disbeliefs, for church attendance or non-attendance. No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever form they may adopt to teach or practice religion. Neither a state nor the Federal Government can, openly or secretly, participate in the affairs of any religious organizations or groups, and vice versa. In the words of Jefferson, the clause against establishment of religion by law was intended to erect ‘a wall of separation between church and State.’”⁴⁸

The First and Fourteenth Amendments to the Constitution of the United States are of critical importance to the protection of the administrative and intellectual structures of the secular public university

46. In our chapter on the University of Virginia, we look at the antecedents to the First Amendment’s establishment clause. In legislative debate on the language of the First Amendment, James Madison said “he apprehended the meaning of the words to be, that Congress should not establish a religion, and enforce the legal observation of it by law, nor compel men to worship God in any Manner contrary to their conscience.” 1 Annals of Congress 730 (August 15, 1789).

47. 1943. *Murdock v. Pennsylvania*, 319 U.S. 105 (1943): U.S. Supreme Court.

48. 1947. *Everson v. Board of Education*, 330 U.S. 1 (1947): U.S. Supreme Court.

from religious influence. These amendments, and the Supreme Court's decision on the Dartmouth case, which we will examine in Chapter Three, protect privately-controlled religious universities, which are now disconnected from civil government except through their corporate charters, from interference by the federal and state governments.

Models of civil government

A government is the system according to which the whole body of citizens of a nation or community is governed. The verb 'to govern' means to rule with authority, to direct and control the actions and affairs of the people of a state or a corporation.⁴⁹ The adjective 'civil' further defines such a government as being secular—non-ecclesiastical and non-military.⁵⁰ Civil government in seventeenth-century North America was typically linked to the governance of the Christian Church.

Like the Anglican Church, the political structure of 17th-century colonial Virginia was highly centralized, although it eventually evolved to include elected legislative representatives. The king of England appointed and removed the colonial governor, councilors, and judges. The royal governor, who followed instructions from the king, had executive, legislative, and judicial powers and was the military commander-in-chief. The highest civil court consisted of the governor and his councilors. In addition to these civil powers, the governor was the head of Virginia's established Anglican Church. In 1619 the General Assembly was created in Virginia. This legislative body consisted of the governor's council and the House of Burgesses, a body of representatives elected by qualified voters who resided in the colony.

49. A corporation (body corporate) is defined as "an entity that has legal personality, i.e. it is capable of enjoying and being subject to legal rights and duties (see juristic person) and possesses the capacity of succession." Kennedy, M. 2007. "corporation" *The Oxford Dictionary of Law Enforcement*, Oxford University Press. Oxford Reference Online. UC Santa Cruz. 13 December 2007 <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t239.e751>.

50. Our definition of 'civil government' is derived from entries in *The Oxford English Dictionary*: *The Oxford English Dictionary*. 1989 2nd ed.-b. "govern, v.": OED Online. Oxford University Press. 13 Sept. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50097290>. —. 1989 2nd ed.-k. "government": OED Online. Oxford University Press. 13 Sept. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50097309>. —. 1989 2nd ed.-j. "civil, a.": OED Online. Oxford University Press. 13 Sept. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50040551>.

Prior to the Revolution, laws passed by the General Assembly that were accepted by the governor were then sent to England for the king to affirm or reject.⁵¹

The Massachusetts Bay Colony, originally chartered as a commercial enterprise, was nominally part of the British Empire, but functioned as an independent state. The governor of the Massachusetts Bay Colony, and those of other autonomous New England republics, had less extensive, but similar powers to those of the royal governor of Virginia. Self-governed by the members of the colonial corporation, the Massachusetts Bay Colony has been described as an oligarchy or an aristocracy: it was not a representative democracy.

The authority of the Massachusetts government emerged from the charter granted in 1629 by King Charles the First (1600-1649). The charter named the individuals that comprised the political and corporate body known as the “Governor and Company of the Massachusetts Bay in Newe-England,” and granted them perpetual succession. There would be one governor, one deputy governor, and eighteen assistants who would be chosen from the freemen of the company.

The government of early Massachusetts has been described by some historians as being a church-dominated theocracy;⁵² however, the governing authority of the Massachusetts Bay Company came from the Charter of Massachusetts Bay (1629), not the church. The charter does not explicitly instruct the members of the company to establish a church.⁵³ Nevertheless, the Massachusetts clergy played an influen-

51. Barck, O. T., Jr., Lefler, H. T. 1968. *Colonial America* (Second Edition). New York: The Macmillan Company. p. 53–55. Oscar Theodore Barck, Jr. was Professor of History at Syracuse University and Hugh Talmage Lefler was Professor of History at the University of North Carolina. In 1624 a resolution was passed by the Virginia assembly that stated: “The governor shall not lay taxes or ympositions upon the colony, other way than by authority of the General Assembly to be levied and ymployed as the said assembly shall approve.” (Barck and Lefler, p. 53). An additional source we consulted for the colonial history of North America: Chitwood, O. P. 1961. *A History of Colonial America, Third Edition*. New York: Harper & Row. Oliver Perry Chitwood is Professor Emeritus of History, West Virginia University.

52. For an example of this point of view, see: 2007. “Massachusetts”. *Encyclopædia Britannica*: Encyclopædia Britannica Online. 7 Sept. 2007, <http://search.eb.com/eb/article-79365>. p. 20 of 23: “The Puritans essentially established a theocracy, with close ties between the government and the clergy ... the leaders felt comfortable ... in interpreting the will of God for the people.”

53. See: 1629. *The Charter of Massachusetts Bay: 1629*: The Avalon Project, Sturbridge Massachusetts, at Yale Law School. <http://www.yale.edu/lawweb/avalon/states/mass03>.

tial role in the civil government, and the civil court had authority over, and often interfered with the church. Ministers delivered sermons on election days and advised the colonial General Court; meanwhile, the court approved the establishment of new congregations, proclaimed religious feasts and fasts, and punished religious misdemeanors and transgressions.⁵⁴ In colonial Massachusetts, the relationship between church and state provides a model of combined independence and interdependence of multiple administrative bodies. In that era, society's principal interdependent administrative bodies were churches, colonial governments, and ruling governments; today, they are public research universities and local, state, and federal government.

THE THREE STRUCTURES OF TODAY'S PUBLIC RESEARCH UNIVERSITIES

Administrative Structure

The twenty-first century public university is governed by a complex administrative structure with multiple branches and hierarchies. Many forms of administrative structure function interdependently in the university. These forms include those that are hierarchical and centralized, democratic and decentralized, aristocratic and autocratic.

The organizational form includes the hierarchy of college or university president, deans, and department heads. It also includes faculty committees and other administrative governing bodies that report to the president. These include the registrar, the admissions office, the university's business offices, and offices that actively pursue sources of funding to sustain the institution (the "development" or "advancement" office).

In academia, the governing administrative structure includes boards of governors, trustees, visitors, or regents that may operate externally

htm. Accessed September 5, 2007. Source: *The Federal and State Constitutions, Colonial Charters, and Other Organic Laws of the States, Territories, and Colonies Now or Heretofore Forming the United States of America*. Compiled and Edited Under the Act of Congress of June 30, 1906 by Francis Newton Thorpe. Washington, DC: Government Printing Office, 1909.

54. See: Seidman, A. B. 1945. "Church and State in the Early Years of the Massachusetts Bay Colony". *The New England Quarterly* 18: 211-233.; Seidman is cited in Holifield, E. B. 1993. "Peace, Conflict, and Ritual in Puritan Congregations". *Journal of Interdisciplinary History* 23: 551-570. pp. 551-570.

or internally to a particular institution, as well as other administrative bodies such as faculty senates and committees. A public university's administrative structure has links to the governance structure of the state or territory in which it resides.

Typically, in the United States, an institution of higher education must secure state government permission prior to its establishment. This is accomplished through the grant of a charter or other enabling legislation. A charter is similar to a contract. With a charter, a legislature or other existing recognized authority describes the functions and obligations of the new organization (a university, business, or city), defines the relationship between the agency that granted the rights and the subordinate organization, and grants rights, privileges and powers of self-governance to the new organization.⁵⁵

A charter typically includes the institution's mission statement. The mission statement provides a formal summary of the institution's purpose and goals.⁵⁶ In the university of the twenty-first century, the institutional goals expressed in the mission statement, and the functions and obligations outlined in a charter, are further refined and expanded in official institutional regulations and policy statements published by the institution's board of governors and president's office, and possibly by faculty.

Sir William Blackstone, writing in the eighteenth century, defined and compared a natural person and the artificial person of a

55. For definitions of the term 'charter,' see: *The Oxford American Dictionary of Current English*. 1999. "charter n. & v." Oxford Reference Online. Oxford University Press. UC Santa Cruz. 10 April 2007, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t21.e5289>; Oxford Dictionary of Law. 2006. "charter n." in Martin E. A., Law J., eds: Oxford Reference Online. Oxford University Press. UC Santa Cruz. 10 April 2007. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t49.e572>.

See also: *Encyclopædia Britannica*. 2007b. "charter": Encyclopædia Britannica Online. Encyclopædia Britannica Inc., 2011. Web. 01 Nov. 2011. <<http://www.britannica.com/EBchecked/topic/107660/charter>>. ; and, —. 2007a. "chartered company": Encyclopædia Britannica Online. Encyclopædia Britannica Inc., 2011. Web. 01 Nov. 2011. <http://www.britannica.com/EBchecked/topic/107687/chartered-company>. See also: 1999. 'charter' in Garner B. A., ed. *Black's Law Dictionary, Seventh Edition*. St. Paul, MN, West Group. 'charter' (p. 228) "An instrument by which a governmental entity (such as a city or state) grants rights, liberties, or powers to its citizens."

56. *The Oxford English Dictionary*. Draft Revision Sept. 2003. 'mission, n.': OED Online. Oxford University Press. 22 Sept. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/00311979>. Sense 11.b, mission statement, "a formal summary of the aims and values of a company, organization, or individual."

chartered corporation:

“Persons also are divided by the law into either natural persons, or artificial. Natural persons are such as the God of nature formed us: artificial are such as created and devised by human laws for the purposes of society and government; which are called corporations or bodies politic.”⁵⁷

Blackstone describes a corporation poetically as “one person in law, a person that never dies: in like manner as the river Thames is still the same river, though the parts which compose it are changing every instant.”⁵⁸ Universities, though changing slower than rivers, retain this crucial characteristic.

A university’s public or private status is an aspect of its administrative structure. All universities exist at once in both the public and private spheres, not one or the other. The difference between a private and a public university does not lie exclusively in its funding or its function in society, but in how the institution is controlled. A private institution is created through the actions of an individual or an organization that petitions the state for a charter; in contrast, a public institution is established by legislative statute, or by a provision in a state’s constitution. However, as Edwin D. Duryea, Professor Emeritus of Higher Education at the Graduate School of Education, SUNY Buffalo, points out, private colleges and universities perform a public function and receive directly or indirectly public financial support ranging from tax exemption to federal assistance for students and research.⁵⁹

57. Blackstone, W., Sir., 1765-1769. *Commentaries on the Laws of England*: Oxford : Printed at the Clarendon Press, 1765-1769. Digital version published by The Avalon Project: Documents in Law, History, and Diplomacy. http://avalon.law.yale.edu/subject_menus/blackstone.asp. Lillian Goldman Law Library, Yale Law School, New Haven, Connecticut. *Book the First, Of the Rights of Persons, Chapter the First, Of the Absolute Rights of Individuals*, p. 119.

58. *Ibid.* *Book the First, The Rights of Persons, Chapter the Eighteenth, Of Corporations*, p. 456.

59. See: E. D. Duryea’s review (in *The Journal of Higher Education*, Vol. 45, No. 7. (Oct. 1974), pp. 560-562) of: Whitehead, J. S. 1973. *The Separation of College and State: Columbia, Dartmouth, Harvard, and Yale, 1776-1876*. New Haven: Yale University Press. Edwin D. Duryea (1916 – 2005) was Professor of Higher Education from 1966 to 1984 at the Graduate School of Education, SUNY, Buffalo. In the introduction to his book (*The Separation of College and State*), John S. Whitehead, Professor Emeritus of History, University of Alaska, Fairbanks, quotes James Bryce, who used Alexis Tocqueville’s *Democracy in America* (1835) as a model for his *American Commonwealth* (1888), and “devoted an entire chapter to ‘The Universities.’” Bryce observed, “ ‘Most of the American universities are referable to one of two types, which may be described as the older and the

Donald G. Tewksbury (1894-1958), in turn a student, teacher, and administrator at Teachers College, Columbia University, wrote his dissertation on American colleges and universities founded prior to the Civil War. He notes that colonial governments would not assume primary responsibility for the control and financial support of the nine colonial colleges established in that period. These institutions were supported mainly by private donors, and governed by self-perpetuating boards of trustees. Tewksbury refers to them as “semi-state” and “semi-private institutions.”⁶⁰

John S. Whitehead, Professor Emeritus of History, University of Alaska, Fairbanks, summarized the history of the relationship between higher education and state support with the insight that a private university is actually a “quasi-public institution” and that “a distinction between ‘private’ and ‘public’ did not exist” between 1776 and 1876.⁶¹

Physical Structure

The physical structure of a university includes the institution’s land and buildings, such as classrooms, libraries, laboratories, greenhouses and botanical gardens, hospitals and clinics, offices and conference rooms, garages, theaters, dormitories, and faculty housing. The university’s lands and buildings may be composed of a single campus, contiguous groupings of buildings, or broadly scattered facilities located throughout a city or a region. There may be one campus or a system of several campuses.

The contents of the university’s buildings are part of its physical structure, but much of what the buildings contain belongs also to the administrative and intellectual structures. Some examples of physical

newer, or the Private and the Public type.’ The former type, ‘usually of private foundation,’ was controlled by ‘a body of governors or trustees in whom the property and general control of the institution is vested’; the public type included institutions ‘established, endowed, and governed by a state, usually through a body of persons called Regents.’ Bryce’s categories probably sound familiar to most readers of today.” [James Bryce, *American Commonwealth*, 2 vols. (London, 1888), 2:527.]

60. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). (Author’s full name: Donald George Tewksbury) See pages 141, 158, 166.

61. Whitehead, J. S. 1973. *The Separation of College and State: Columbia, Dartmouth, Harvard, and Yale, 1776-1876*. New Haven: Yale University Press. p. 238.

contents are: furniture, laboratory equipment and supplies, computers, administrative records, library books, plants and animals (living and preserved) used in research, and museum collections.

A crucial aspect of the university's physical structure is the institution's property rights. There are four general categories of property rights systems: private property (single owners), government property (publicly owned), common property (multiple "full" owners), and open-access property (no owners). Two of these systems, or regimes of property ownership—government property and private property—are applicable to a public university.⁶²

A University might be surrounded by gated walls to protect its physical property, and the students, professors, and other employees who work and study within its buildings and grounds. Gates function as barriers to incoming vehicles and pedestrians. Paul Venable Turner, Professor Emeritus of Architectural History, Stanford University, said that college buildings that formed an enclosed quadrangle to provide protection to the institution from the surrounding city were likely first seen at New College at Oxford, founded in 1379.⁶³ The enclosed quadrangle model, however, appeared much earlier than the fourteenth century. The original buildings of Al-Azhar mosque and university in Cairo, which has been in continuous operation since its establishment in the tenth century, were constructed in the form of an enclosed protective quadrangle.⁶⁴

Looking at the property rights linked to the university's physical structure at a smaller scale, some buildings, and certain rooms within buildings, present a combination of both government and private property ownership categories. Most offices assigned to individual faculty, students, and administrators are not accessible to the public. Other rooms are locked for the protection of the room and the materials held in the room, to protect people from hazardous materials and

62. The open access regime of property ownership is also applicable to public universities. Issues related to open access property emerge from the use of the public land of a university for political protest, recreation, squatting, or private research. Courts are slowly restricting the open-access nature of university libraries and lands.

63. Turner, P. V. 1984. *Campus: An American Planning Tradition*. Cambridge, Massachusetts: The Architectural History Foundation/The MIT Press. pp. 9-10.

64. For a detailed study of the architecture of Al-Azhar University, see: Rabbat, N. 1996. "Al-Azhar Mosque: An Architectural Chronicle of Cairo's History". *Muqarnas: An Annual on the Visual Culture of the Islamic World*. Gülru Necipoglu (ed.). Leiden: E.J. Brill. 13: 45-67.

equipment, and to protect private student and personnel records.

In addition to property rights related to its physical structure, the university also has intellectual property rights. Intellectual property, which is an intangible form of property that includes patents and copyright material, is the product of inquiry.⁶⁵

Intellectual Structure

The university's administrative and physical structures provide support and are integral to its intellectual structure, which we defined as the mutually connected and dependent branches of knowledge. In this definition we include the interlinkings between these branches of knowledge and the processes that lead to the creation of knowledge. The creation, preservation, and transmission of knowledge are the goals of the university's intellectual structure.

Academic freedom is crucial to the integrity of the intellectual structure of a university and supports the fundamental institutional mission to advance and transmit knowledge. It protects the freedom of inquiry and research, the freedom of teaching, and the freedom of expression and publication.⁶⁶ Its founding principle is that while the professoriate has a moral responsibility and a duty to the public, it is answerable only to itself, and does not take direction from the owners of a private university, the public, or the civil government.⁶⁷ This notion is expressed in the AAUP's 1915 statement on academic freedom:

"The relationship between University trustees and members of the University faculties is not in any sense that of an employer and an employee.

65. See "intellectual property" in *The Oxford English Dictionary*. 1989 2nd ed.-f. "intellectual, a. and n.": OED Online. Oxford University Press. 10 Jan. 2007 <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50118606>.

66. University of California, Atkinson, R. 2003. "On Academic Freedom". University of California, General University Policy Regarding Academic Appointees: Academic Freedom. Academic Personnel Policy 010, Academic Freedom (APA – 010), Revised 9/29/2003. This revised policy replaced the previous statement on academic freedom issued by University of California President Robert G. Sproul in 1934.: Available at: "Selected Works of Richard Atkinson". http://works.bepress.com/richard_atkinson/16 (Accessed: June 1, 2009).

67. Post, R. C. 2003. "Academic Freedom: Its History and Evolution within the UC System". Paper presented at Academic Freedom Forum; June 11, 2003, University of California, Berkeley. (<http://www.universityofcalifornia.edu/senate/committees/ucaf/afforum/>). <http://www.universityofcalifornia.edu/senate/committees/ucaf/afforum/post.pdf>. (Accessed: June 15, 2007).

For once appointed, the scholar has professional functions to perform in which the appointing authorities have neither competency nor moral right to intervene. The responsibility of the University teacher is primarily to the public itself and to the judgment of his own profession. And while with respect to certain external conditions of his vocation, he accepts the responsibility to the authorities of the institution in which he serves and the essentials of his professional activity, his duty is to the wider public to which the institution itself is morally amenable.”⁶⁸

The intellectual structure of public universities is under constant creative and stultifying pressures. As exciting new ideas emerge, or as new problems arise, existing intellectual structures, memorialized in the form of academic departments, disciplines, and courses of study are shown to be inadequate. Yet the structures exist to help other researchers evaluate the quality of work and quickly identify if an idea is actually new. Intellectual freedom protects the individual researcher from personal retribution but a frozen intellectual structure can hold back the creative potential of the researchers. A poignant example is provided by a well-known paradoxical statement: the true measure of academic attainment is how long an individual can hold back progress in their field. In his lecture to the AAAS in December 1960, Bernard Barber (1918-2006), Professor of Sociology at Barnard College, discussed the “elements within science which limit the norm and practice of ‘open-mindedness.’”⁶⁹ Barber’s examples of resistance to new ideas include a comment by theoretical physicist Max Planck (1858-1947), who said, “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and

68. Quoted in Robert C. Post. “Academic Freedom, Its History and Evolution within the UC System,” presented at the Joint Systemwide Academic Senate Committee, Academic Freedom Forum, June 11, 2003, University of California, Berkeley, Faculty Club, Seaborg Room. <http://www.universityofcalifornia.edu/senate/committees/ucaf/afforum/>. Accessed: May 14, 2007. Original Source: American Association of University Professors. 1915. “General Report of the Committee on Academic Freedom and Academic Tenure” (1915 Declaration of Principles on Academic Freedom and Academic Tenure). *Bulletin of the American Association of University Professors*. Volume 1, Part 1 (December 31, 1915). See also: —. 2006. AAUP Policy Documents & Reports, tenth edition: American Association of University Professors, Washington, D.C.: Distributed by the Johns Hopkins University Press, Baltimore. Appendix I: “1915 Declaration of Principles on Academic Freedom and Academic Tenure,” pp. 291-301.

69. See: Barber, B. 1961. “Resistance by Scientists to Scientific Discovery”. *Science* 134: 596-602. Page 596.

a new generation grows up that is familiar with it.”⁷⁰ Hans Zinsser (1878-1940), Professor of Bacteriology and Immunology at Columbia, Stanford, and Harvard universities, expressed similar insights in his autobiography, *As I Remember Him, the Biography of R.S.*:

“...The conservatism which delays but cannot inhibit progress may, on the other hand, be of inestimable value in impeding acceptance of the torrents of worthless and purely speculative half-science which accompany all periods of active advance. That academies and learned societies—commonly dominated by older foofoos of any profession—are slow to react to new ideas is in the nature of things. For, as Bacon says, *scientia inflat*, and the dignitaries who hold high honors for past accomplishment do not usually like to see the current of progress rush too rapidly out of their reach. On the other hand, the conservatism of rigid criticism on the part of serious investigators is the only safeguard which stands between the public and charlatantry. Our task, as we grow older in a rapidly advancing science, is to retain the capacity for joy in discoveries which correct older ideas and theories and to learn from our pupils as we teach them. That is the only sound prophylaxis against the dodo-diseases of middle age.”⁷¹

As Ronald Coase, Professor Emeritus of Economics at the University of Chicago Law School, once said to the members of the International Society of New Institutional Economics in his comments about the static character of economics, “to reach our goal, it is better that members should be free to choose the problems they work on. And because of this we should be tolerant of opposing views.”⁷²

The principles of academic freedom, as defined by the American Association of University Professors (AAUP), are integral to the university’s autonomous intellectual direction: “teachers are entitled to full freedom in research and in the publication of the results.” Faculty, according to the AAUP, should also be afforded “freedom in the classroom in discussing their subject,” and freedom from “institutional censorship

70. Ibid. Page 597. Barber quotes Planck, M. 1949. *Scientific autobiography, and other papers; with a memorial address on Max Planck*. New York: Philosophical Library.

71. Zinsser, H. 1940. *As I Remember Him: The Biography of R.S.* Boston: Little, Brown and Company. Page 105. The letters “R.S.” in the title of the autobiography, the last letters, inverted, of Hans Zinsser’s first and last names, are an abbreviation of “Romantic Self.”

72. Coase, R. 1999. *The Task of the Society*. Opening Address to the Annual Conference, International Society of New Institutional Economics, Washington, DC, USA, September 17, 1999: The Ronald Coase Institute. <http://www.coase.org/coasespeech.htm> (Accessed: June 2, 2009).

or discipline when they speak or write as citizens.”⁷³ These freedoms might appear to be equivalent to the First Amendment rights of citizens, but academic freedom is “not the absolute freedom of utterance of the individual scholar, but the absolute freedom of thought, of inquiry, of discussion and of teaching, of the academic profession.”⁷⁴ Academic freedom is “the liberty to practice the scholarly profession.”⁷⁵ In their book, *For the Common Good: Principles of American Academic Freedom*, Matthew W. Finkin (Professor of Law at The University of Illinois at Urbana-Champaign) and Robert C. Post (Professor of Law at Yale Law School) write:

“...No university currently deals with its faculty as if academic freedom of research and publication were an individual right to be fully free from all institutional restraint. Universities instead hire, promote, grant tenure to, and support faculty on the basis of criteria of academic merit that purport to apply to professional standards. Individual faculty have no right of immunity from such judgments.”⁷⁶

A wide span is given to faculty members to provide critical commentary on current, controversial issues.⁷⁷ The AAUP’s *1915 Declaration of Principles on Academic Freedom and Academic Tenure* says the purpose of university education is “...not to provide...students with ready-made conclusions, but to train them to think for themselves, and to provide them access to those materials which they need if they are to think intelligently.”⁷⁸ To refine the meaning of the 1915 statement,

73. American Association of University Professors. 1940. *1940 Statement of Principles on Academic Freedom and Tenure (including 1940 and 1970 Interpretive Comments)*. (June 17, 2009, <http://www.aaup.org/AAUP/pubsres/policydocs/contents/1940statement.htm>)

74. —. 1915. “General Report of the Committee on Academic Freedom and Academic Tenure” (1915 Declaration of Principles on Academic Freedom and Academic Tenure). *Bulletin of the American Association of University Professors*. Volume 1, Part 1 (December 31, 1915).

75. Finkin, M. W., Post, R. C. 2009. *For the Common Good: Principles of American Academic Freedom*. New Haven & London: Yale University Press. p. 38-39. Quoted text on page 39.

76. *Ibid.* pp. 58-59.

77. See: *ibid.* In “Chapter Four: Freedom of Teaching,” Finkin and Post discuss “controversial matter” and the question of “what it means for teaching material to bear a ‘relation’ to a subject under pedagogical consideration.”

78. American Association of University Professors. 1915. “General Report of the Committee on Academic Freedom and Academic Tenure” (1915 Declaration of Principles on Academic Freedom and Academic Tenure). *Bulletin of the American Association of University Professors*. Volume 1, Part 1 (December 31, 1915).

the AAUP's "1940 Statement of Principles on Academic Freedom and Tenure" states "teachers are entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter which has no relation to their subject." In 1970, to support the inclusion of pedagogically relevant materials in the classroom, the AAUP appended the 1940 statement with an interpretive comment: "The intent of this statement is not to discourage what is 'controversial.' Controversy is at the heart of the free academic inquiry which the entire statement is designed to foster. The passage serves to underscore the need for teachers to avoid persistently intruding material which has no relation to their subject."⁷⁹

Commenting on the role of university faculty in relation to the institution's sources of support, Arthur O. Lovejoy, one of the authors of the AAUP's *1915 Declaration of Principles on Academic Freedom and Academic Tenure*, wrote:

"... [the] function of seeking new truths will sometimes mean ... the undermining of widely or generally accepted beliefs. It is rendered impossible if the work of the investigator is shackled by the requirement that his conclusions shall never seriously deviate either from generally accepted beliefs or from those accepted by the persons, private or official, through whom society provides the means for the maintenance of universities...Academic freedom is, then, a prerequisite condition to the proper prosecution, in an orderly and adequately endowed manner, of scientific inquiry."⁸⁰

How the Three Structures Interact

We can see how the institution changes by noting, for example, how societal pressures on the administrative structure alter the composition of the intellectual structure. Or, how new knowledge that emerges from

79. —. 1940. *1940 Statement of Principles on Academic Freedom and Tenure (including 1940 and 1970 Interpretive Comments)*. (June 17, 2009, <http://www.aaup.org/AAUP/pubsres/policydocs/contents/1940statement.htm>). Note: In 2007, the AAUP issued a report on indoctrination, balance, and diversity to address current controversy. See: —. 2007. "Report: Freedom in the Classroom" (2007). Prepared by a subcommittee of the Association's Committee A on Academic Freedom and Tenure. (July 27, 2011, <http://www.aaup.org/AAUP/comm/rep/A/class.htm>)

80. Quoted in Finkin, M. W., Post, R. C. 2009. *For the Common Good: Principles of American Academic Freedom*. New Haven & London: Yale University Press. Finkin and Post cite Author O. Lovejoy, "Academic Freedom," in *Encyclopedia of the Social Sciences*.1930. Edited by Edwin R.A. Seligman and Alvin Johnson. pp. 384.

intellectual inquiry changes the intellectual structure, how changes in the intellectual and administrative structures stimulate the construction of new university buildings, and how these new buildings nurture intellectual inquiry, facilitate the transmission of knowledge, etc.

For example, if an institution of higher education abandons the influence of religion in its administrative structure, its intellectual structure may cease to include theological studies and choose to develop programs in other areas of knowledge. The Morrill Act of 1862 required colleges to teach new courses in engineering and agriculture. These new courses necessitated the appointment of faculty with specialized knowledge related to those disciplines and the construction of specially equipped buildings. These new buildings nurtured inquiry and facilitated the production and transmission of knowledge in these disciplines, which in turn led to an expansion of the boundaries of the intellectual structure by creating new departments of study.

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CHAPTER 3

Dartmouth College and the Supreme Court's 1819 Decision

DARTMOUTH COLLEGE

Introduction and background

The Supreme Court's 1819 decision on the "Dartmouth Case" is a key event in the evolution of the public university in the United States. It addressed the issue of the independence of institutions of higher education, providing an early victory for academic freedom over state control. By increasing the independence of universities from the larger society in which they are embedded, future public universities would emerge and grow within a context of greater independence for higher education regardless of funding source. This has enabled American scholars to get around Bertrand Russell's argument that no true scholar works for a public university since they are beholden to the state and can't be intellectually free.¹ This chapter draws on many sources, notably the excellent book by Dartmouth Professor Leon Burr Richardson, *History of Dartmouth College*. All of the details of the early history of Dartmouth College that we present in this chapter provide essential historical foundations necessary to fully comprehend the origins of the public research university.

1. Russell, B. 1950. "The Functions of a Teacher". *Unpopular Essays*. New York: Simon & Schuster. Pages 112-123. Page 113: "The teacher has thus become, in the vast majority of cases, a civil servant obliged to carry out the behests of men who have not his learning ... and whose only attitude towards education is that of the propagandist. It is not very easy to see how, in these circumstances, teachers can perform the functions for which they are specially fitted." Pages 122-123: "A few great historic universities, by the weight of their prestige, have secured virtual self-determination, but the immense majority of educational institutions are hampered and controlled by men who do not understand the work with which they are interfering. ... The teacher, like the artist, the philosopher, and the man of letters, can only perform his work adequately if he feels himself to be an individual directed by an inner creative impulse, not dominated and fettered by an outside authority. It is very difficult in this modern world to find a place for the individual ... in the realm of the mind it is becoming more and more difficult to preserve independence of the great organized forces that control the livelihoods of men and women."

Dartmouth College was founded in 1769 by Eleazar Wheelock, a Congregational minister and Dartmouth's first president. It is one of nine colleges founded and chartered in the American colonies prior to the American Revolution.²

The Dartmouth charter clearly states the reasons for the college's founding: "for the education and instruction of youth of the Indian tribes in this land in reading, writing, and all parts of learning which shall appear necessary and expedient for civilizing and Christianizing children of pagans, as well as in all liberal arts and sciences, and also of English youth and any others."³ While the charter does not explicitly provide for the establishment of a college church, Dartmouth was expected to supply an educated ministry to the churches of the Province.⁴ A few months after granting the charter, Governor Wentworth wrote to the members of Dartmouth's trust in England to say that the college would

"... more effectually civilize the Indians & spread Christianity among them than any other public or private Measures hitherto granted for Indian Institution. It is also my firm belief that this institution will so attach the Indians to the British Interest that it will prevent more Incursions & ravages upon Peasantry in those remote Countries than the best Regiment of Troops that could be raised. It will also be the Means of cultivating knowledge & establishing the Gospel Ministrations in a remote and extensive but rapidly increasing District of His Majesty's Dominions..."⁵

2. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007). The nine colonial colleges in order of founding are: Harvard College (founded 1636), The College of William and Mary (founded 1693), Yale University (founded 1701), University of Pennsylvania (founded 1740), Princeton University (founded 1746), King's College, now Columbia University (founded 1754), College of Rhode Island, now Brown University (founded 1764), Queen's College, now Rutgers (founded 1766), and Dartmouth College (founded 1769).

3. *Ibid.*

4. *ibid.* Dartmouth's charter is reproduced also in: Chase, Frederick, *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)*, Edited by John K. Lord. Second Edition, 1928, Volume 1, Appendix A, pp. 639-649.

5. Chase, F. 1913-1928. *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)* (Second Edition, 1928) Edited by John King Lord. Brattleboro: The Vermont Printing Co. Chapter II, p. 126-127: Letter from Governor J. Wentworth of the province of New Hampshire "To the Honble The Earl of Dartmouth [and others named], Trustees of Dartmouth College in England," April 28th, 1770. Footnote 1, p.127, states that the letter was "derived from the Governor's manuscript letter-book." Dartmouth

In 1815 a conflict developed over who would govern Dartmouth—the college president (Wheelock), or its Board of Trustees. The state of New Hampshire intervened, seized the college (including its official seal and records), amended the College’s charter without the participation or approval from the Board of Trustees, and established a separate institution named Dartmouth University. The college objected to the state’s actions, and the conflict, known as the Dartmouth College Case, eventually made its way to the United States Supreme Court.⁶ The Dartmouth case both secured the independence of non-public, chartered institutions of higher learning, and also, in the course of the conflict, created a template for the public universities that would emerge in later decades. This template was the short-lived Dartmouth University created by the New Hampshire State Legislature.

ADMINISTRATIVE STRUCTURE OF DARTMOUTH COLLEGE

Dartmouth’s charter

To clarify the function of a corporate charter in the eighteenth century, we look to Sir William Blackstone’s *Commentaries of the Laws of England*. Blackstone (1723-1780), an English legal scholar, explains

historian Frederick Chase (1840-1890), Dartmouth College class of 1860, was Dartmouth Professor John King Lord’s brother-in-law. Chase studied law in Hanover with attorney Daniel Blaisdell (1806-1875), Dartmouth class of 1827, who was treasurer of Dartmouth College from 1835 until his death in 1875. Frederick Chase was appointed clerk in the office of the Second Auditor of the United States Treasury in 1861, and soon earned his LL.B. in Law from the Law School of the Columbian College in 1867. In 1875, after the death of Blaisdell, Chase was appointed treasurer of Dartmouth College, then, in 1876, he was made Judge of Probate for Hanover. Chase wrote the draft for *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)*, but died before it was published. See short biographies of both Blaisdell and Chase in Bell, C. H. 1894. *The Bench and Bar of New Hampshire*. Boston and New York: Houghton, Mifflin and Company. pp. 209-210, 254-255. Frederick Chase was the son of Stephen Chase (1813-1851), Professor of Mathematics at Dartmouth College from 1838-1851, who wrote *A Treatise on Algebra for the use of Schools and Colleges*. See short bio of Frederick Chase (pp. 447-448) and short bio of Professor Stephen Chase, Frederick’s father (p. 261) in Chapman, G. T., Reverend, D.D. 1867. *Sketches of the Alumni of Dartmouth College, from the first graduation in 1771 to the present time, with a brief history of the institution*. Cambridge, MA: Riverside Press.

6. 1819. The Trustees of Dartmouth College v. Woodward. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. LEXIS 330; 4 Wheat. 518; Supreme Court of the United States. Argued March 10-12 1818, decided February 25, 1819 by vote of 5 to 1; Marshall for the Court.

that rights belonging to a natural person expire with the death of that person. To continue a set of granted rights and privileges that would be lost at the death of a natural person, an artificial person called a corporation is required. In eighteenth-century England, only the King or his representatives could create a corporation.

Dartmouth College was granted a charter in 1769 by John Wentworth, the Royal Governor of the province of New Hampshire, and the representative of King George III of England.⁷ Among other things, this charter describes the functions of Dartmouth College, and the authority and responsibilities of the college President and the board of Trustees of Dartmouth College.⁸

Blackstone enumerates five powers, rights, and capacities that belong to a corporation. These five characteristics of a corporation, which exist in Dartmouth's charter, are: (1) to have perpetual succession, or the power to elect replacement members to continue the corporation; (2) to have access to courts as a legal individual; (3) to purchase lands; (4) to have a common seal through which the corporation speaks and acts; and (5) to make bylaws to govern the corporation, which are binding upon themselves and not contrary to the laws of the land.⁹ Dart-

7. In 1775, six years after granting a charter for the establishment of Dartmouth College, Royal Governor John Wentworth fled the province to seek protection at Fort William and Mary from revolutionary elements that had taken over New Hampshire. See: Barck, O. T., Jr., Lefler, H. T. 1968. *Colonial America* (Second Edition). New York: The Macmillan Company.

8. Dartmouth College's charter was written by the college's founder and president, Eleazar Wheelock. See: Wright, I. L., (Bobby). 1988. *For the Children of the Infidels? American Indian Education in the Colonial Colleges*. Monograph Series (89-10). Institute for Higher Education Law and Governance, University of Houston, Law Center. <http://www.law.uh.edu/ihelg/monograph/89-10.pdf> (Accessed: March 20, 2011). In his paper, Irvin Lee (Bobby) Wright (1950-1991), assistant professor in the College of Education, research associate in the Centre for the Study of Higher Education at Pennsylvania State University, and former director of the Centre for Native American Studies at Montana State University, describes the history of Dartmouth's charter in context with the establishment of similar institutions of that era.

9. Blackstone, W., Sir., 1765-1769. *Commentaries on the Laws of England*: Oxford : Printed at the Clarendon Press, 1765-1769. Digital version published by The Avalon Project: Documents in Law, History, and Diplomacy. http://avalon.law.yale.edu/subject_menus/blackstone.asp. Lillian Goldman Law Library, Yale Law School, New Haven, Connecticut. *Book the First, Chapter the Eighteenth, Of Corporations*, pp. 455-463, especially page 463. http://avalon.law.yale.edu/18th_century/blackstone_bk1ch18.asp. For a history of the origins of university governance, see Duryea, E. D. 2000. *The Academic Corporation: A History of College and University Governing Boards*. New York: Falmer Press.

mouth's charter further defines this last power, stating that the college laws established by Dartmouth's Trustees may not exclude "any person of any religious denomination whatsoever, from free and equal liberty and advantage of education, or from any of the liberties and privileges or immunities of the said college, on account of his or their speculative sentiments in religion, and of his or their being of a religious profession different from the said trustees of the said Dartmouth College."¹⁰

The powers of a corporation are defined by the terms of its charter. In his 1819 opinion on the Dartmouth case, Chief Justice Marshall wrote:

"A corporation is an artificial being, invisible, intangible, and existing only in contemplation of law. Being that mere creature of law, it possesses only those properties which the charter of its creation confers upon it, either expressly, or as incidental to its very existence."¹¹

In his description of the power of colonial governments over colleges, Martin Trow (1926-2007), Professor Emeritus of Public Policy at the University of California, Berkeley, said that "charters expressly reserved for colonial governments a continuing role in the governance of colleges, placing colonial officers directly on boards of trustees, or assigning to the Courts and legislatures the power of review."¹² Unless a charter contains provisions to the contrary, amendments must be approved by an external authority that has the power to make the requested changes. For Dartmouth College, after the Revolution, this authority was the New Hampshire legislature; however, Dartmouth's charter is silent on process for amendments. It did not include any provision to allow an external authority to make amendments. Any amendment, therefore, would require the approval of Dartmouth's

10. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

11. 1819. *The Trustees of Dartmouth College v. Woodward*. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. Lexis 330; 4 Wheat. 518: Supreme Court of the United States.

12. Trow, M. 2003. *In Praise of Weakness: Chartering, The University of the United States, and Dartmouth College*. Center for Studies in Higher Education. Research and Occasional Paper Series: CSHE.2.03 (<http://ishi.lib.berkeley.edu/cshe/>) (Accessed: June 21, 2009). According to his obituary published by the UC Berkeley NewsCenter: "He is credited with being the first scholar to describe the transition in higher education from elite to mass to universal student access in a seminal paper written in 1973 for the Organization for Economic Cooperation and Development (OECD)." See: http://www.berkeley.edu/news/media/releases/2007/03/02_trow.shtml (Accessed: June 21, 2009)

Board of Trustees. It was this particular aspect of Dartmouth's charter that would later become a bone of contention.

The president of Dartmouth College

Dartmouth's college president played a dual role of teacher and administrator. He was responsible for the students and their education, and held a seat on the board of Trustees. This is an early example of shared governance between the faculty and the administration in the sense that President Wheelock was both a faculty member and an administrator; however, in terms of broader authority at Dartmouth, having just one out of twelve votes on any given issue did not give the president much influence in the Board's decisions.

The charter granted the college president full responsibility, with assistance from professors and tutors, for the education and governance of the college's students; however, the Trustees controlled the appointment and discharge of professors, which gave them extensive control over the intellectual structure of the college.¹³

John Wheelock was placed in the office of President of Dartmouth College by his father Eleazar with approval by the Trustees. At the time of the case, the president played a role in both the administrative and intellectual structures of the college. He was a member of the governing board and delivered morning and evening prayers at the college chapel. In his capacity as a teacher, he gave lectures on theology and ecclesiastical history, and had responsibility for the senior class academic program.¹⁴ The president also had authority to call special meetings of the Trustees between the required annual meetings.

13. See: Dartmouth College. 2007. Dartmouth College Board of Trustees: <http://dartmouth.edu/~trustees/overview.html> (Accessed: September 18, 2007). "The Board of Trustees is granted final authority under the original Charter of Dartmouth College to establish such '...ordinances, order and laws as may tend to the good and wholesome government of the said College...' Other statutory functions of the Board include the appointment of faculty and principal administrative officers, the purchase and disposition of real property, the establishment of salary scales, and the awarding of degrees. In short, the Board of Trustees has ultimate responsibility for the financial, administrative and academic affairs of the College."

14. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 1, p. 261.

The role of faculty in the administration of Dartmouth College

At first glance, it appears that Dartmouth's professors and tutors did not participate in the institution's administrative governance except temporarily if the president's office was vacant. The senior professor or tutor at the college filled that vacant chair until the Trustees appointed a replacement. Since the Trustees met annually unless the president called a special meeting, it seems unlikely that a member of the faculty serving as acting president would have had much influence on the board's decisions.¹⁵ However, Chief Justice Marshall's opinion for the Court, in his analysis of Dartmouth's charter, describes a system of governance checks and balances between the intellectual and administrative structures. Marshall wrote:

"...the charter itself countenances the idea, that the trustees may also be tutors with salaries. The first president was one of the original trustees; and the charter provides, that in the case of vacancy in that office, 'the senior professor or tutor, being one of the trustees, shall exercise the office of president, until the trustees shall make choice of, and appoint a president.' According to the tenor of the charter, then, the trustees might, without impropriety, appoint a president and other professors from their own body."¹⁶

The Board of Trustees of Dartmouth College

The Englishmen who came to America brought with them a social system that linked land ownership with a person's position in the community and political power with the number of acres owned.¹⁷ Those who owned land in the Revolutionary era were primarily professional men belonging to the middle and upper classes. The professions most often associated with the middle class were lawyers, ministers, doctors, most government officials, ships' captains, innkeepers, and retail-

15. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

16. 1819. *The Trustees of Dartmouth College v. Woodward*. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. Lexis 330; 4 Wheat. 518: Supreme Court of the United States.

17. Eisinger, C. E. 1947. "The Freehold Concept in Eighteenth-Century American Letters". *The William and Mary Quarterly* 4: 42-59. pp. 42-59.

ers. The acquisition of large tracts of land and appointment to high public office provided entrance into the upper class. Members of these social classes had enough money to educate their children.¹⁸

Prior to the American Revolution, Dartmouth College had two governing boards: a board located in England, comprised of individual donors, to oversee the college's finances, and the provincial board of trustees located in colonial New Hampshire that managed the daily functions of the college. During the years of the conflict that led to the 1819 Supreme Court decision, the college was governed solely by the board located in North America—the Trustees of Dartmouth College.

Dartmouth's 1769 charter defines the composition of the Board of Trustees, their responsibilities, and the procedures for filling Board vacancies. The 1769 Board had twelve members, including the college president. Eight of the twelve had to be residents and freeholders (landowners) in the province of New Hampshire, and seven of the twelve had to be laymen.¹⁹

The original twelve members of the board of Trustees included the founding president, Eleazar Wheelock. Six members were "ministers of the gospel" from New Hampshire and Connecticut, and the other five members were the New Hampshire Provincial Governor, the president of the Provincial Council, two members of the Council, and the Speaker of the House of Representatives. The original appointments of government officers to the Board can be interpreted as a model for filling future vacancies; however, the charter is ambiguous in this regard. It did not explicitly identify the government officers as being *ex officio* members of the board.

Dartmouth's charter granted the provincial Board of Trustees full authority to appoint and remove all college officers, including professors, tutors, treasurer, clerks, and even the college president (those

18. See Main, J. T. 1965. *The Social Structure of Revolutionary America*. Princeton, New Jersey: Princeton University Press. pp. 42, 247, 274-277. —. 1966. "Government by the People: The American Revolution and the Democratization of the Legislatures". *The William and Mary Quarterly* 23: 391-407.

19. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007). See also: Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 1, especially p. 89.

who followed the founding president). They had the power to grant degrees to the students of the college. The Trustees, having “perpetual succession and continuance forever”, nominated and appointed replacements for their own vacancies.²⁰ The Board’s authority to appoint and remove all officers and professors effectively extended perpetual succession beyond their own governing body to the whole institution.

Prior to the mid-nineteenth century, Dartmouth and Harvard differed in at least one important aspect—the relation of college governance to the civil government of the province or state. Dartmouth’s charter appointed specific individuals to the body of Trustees and identified them by both their given names and their office in civil government; however, it also granted this body perpetual succession as a mechanism to replace vacancies on the board. Through perpetual succession, a governing body chooses its own replacements for vacancies without intervention from an exterior authority. During negotiations with Dartmouth’s founding president, provincial governor Wentworth strongly suggested that the college would benefit if government officials were *ex officio* members of the board of trustees.²¹

By contrast, Harvard College has two governing boards: one is

20. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

21. Letter of October 18, 1749 to Eleazar Wheelock in which Governor Wentworth, as part of the negotiations for Dartmouth’s charter, discusses his request for government officers of the province of New Hampshire to be seated on Dartmouth’s Board of Trustees: “The nomination of the three provincial officers to be of the active, influential, conducting trust in this country, I strongly recommend, but do not insist upon. They will be a natural defence, honor, and security to the institution, which may perhaps be the more eligible, as they can’t be supposed to be at any time other than the safest and most natural guardians of education. However, I shall not insist upon them, yet would wish so well to the design as to be desirous of its being availed of such an honorable patronage. That I did not mention any other than the Governor to be of (p. 118) the trust, can by no means be preclusive, neither did I so intend it. The same reason would operate equally against every part of the charter which you did not particularly mention to me. It was indeed resolved on my side that the Governor should be one; but by no reason or considerate supposition can it thence be inferred, the only one: for if so, all those that are mentioned by you must also be contrary to the plan,—which I by no means suppose.” This transcription is found in *A History of Dartmouth College and the Town of Hanover New Hampshire (to 1815)* by Frederick Chase, edited by John K. Lord. Second Edition. Brattleboro, The Vermont Printing Company, 1928. Volume 1, Chapter II, pp. 117-118. See also: *History of Dartmouth College* by Leon Burr Richardson (1932), Volume 1, p. 87: “He did not insist on including the provincial officials as ex-officio members of the trustees, but considered that if it were done, the institution would profit thereby.”

called the President and Fellows of Harvard College (a self-perpetuating body also known as the Harvard Corporation), and the other is the Overseers of Harvard College. The successional membership of Harvard's board of Overseers, as defined by the Act of 1642 and prior to 1865, was linked directly to the sequence of officeholders in civil and ecclesiastical government. The Overseers of Harvard College was not established as a self-perpetuating body: its members were not given authority to select replacements for vacancies.²²

The ambiguity in Dartmouth's charter with respect to the future organization of the board, especially the mechanism for replacement of vacancies, enabled the sitting Trustees to disconnect the board's membership from the civil government at will. In addition, this ambiguity effectually preserved the Trustees' exclusive control of the college by allowing them to retain their seats on the board after they left public office. The mechanism of perpetual succession prevented automatic

22. Harvard was established by the General Court of the Massachusetts Bay Colony in 1636. Its first Board of Overseers was appointed in 1637. At that time, the Overseers consisted of the Governor and the Deputy Governor of the Massachusetts Bay Colony and certain Reverends and citizens. In 1642, the General Court, by legislative act, gave the Board of Overseers permanent organizational form: the President of the College, the Governor and the Deputy Governor of the Colony, all magistrates of the Colony, and the ordained ministers of Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester. This Act states that the Overseers "shall ... have full power and authority to make and establish all such orders, statutes, and constitutions, as they shall see necessary for the instituting, guiding, and furthering of the said College...."

In 1650, the General Court granted the Charter under which Harvard operates today. The Charter "led to the separation of Harvard's governmental structure from the colonial legislature." It defined Harvard as a corporation governed by two boards: the President and Fellows of Harvard College (commonly known as the Corporation) and the Board of Overseers. The Charter states that the President and Fellows "shall for ever hereafter, in name and in fact, be one body politic and corporate in law, to all intents and purposes; and shall have perpetual succession ... and to make, from time to time, such orders and by-laws, for the better ordering, and carrying on the work of the College, as they shall think fit." In 1657, the General Court granted an Appendix to the Charter to clarify the powers distributed between the Corporation and the Board. The Appendix made it clear that the Corporation was the superior governing body, although the decisions of the Corporation required the consent of the Overseers. See: Harvard University Board of Overseers, President and Fellows of Harvard College. 2006. *Records of the Board of Overseers, 1825-1998* (bulk), *1650-1998* (inclusive): Harvard University Archives. Call Numbers: UAll 200 and UAll 5.x. <http://oasis.lib.harvard.edu/oasis/deliver/~hua07002> (Accessed: November 28, 2007). See Also: Harvard University. 1835. *Constitutional Articles and Legislative Enactments relative to The Board of Overseers and The Corporation of Harvard University; also Rules and Regulations of the Overseers.*: Harvard University Archives. (Charles Folsom, Printer to the University, Cambridge, 1835). <http://pds.lib.harvard.edu/pds/view/2582402?n=1> (Accessed: November 28, 2007).

appointment of individuals to the board (*ex officio* members) whose ideology may not have matched that of the board's majority. This aspect of Dartmouth's charter also enabled the founding Wheelock family to dominate the institution's governance. Richardson argues that the elder Wheelock dominated the institution's governance regardless of the charter's provisions, and that the younger Wheelock perpetuated this model, which ultimately led to conflict with the Board. While the charter gave the Trustees complete control, the founder and the members of the board "considered themselves merely as appendages" and didn't perceive their independence or the serious importance of their duties until the college attained a reputation equivalent to that of other similar educational institutions.²³

The independence of the Board from civil government began to erode in the late 18th century. In 1788, during John (the younger) Wheelock's presidency (1779-1815), Dartmouth's Board of Trustees interpreted language in the college's charter to mean that the governor of New Hampshire had a right to an *ex officio* position on the Board.²⁴ In 1807, Dartmouth's charter was amended through legislative act to alter the structure of the Board to include, on a temporary basis, certain members of the New Hampshire state government during special sessions when funds and other public resources granted to the college

23. L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 288. Leon Burr Richardson (1878-1951) graduated from Dartmouth in 1900, received his masters degree, and taught chemistry at Dartmouth for 46 years, retiring in 1948. His book, *History of Dartmouth College*, was written at the request of Dartmouth College President Hopkins with the support of the Trustees. Richardson also wrote *A Study of the Liberal College* (Hanover, NH: Dartmouth College, 1924). See "In Memoriam, Leon Burr Richardson '00," in *Dartmouth Alumni Magazine*, Issue of December 1951, pp. 28-30. Thanks to Dartmouth College Library and Sarah Hartwell, Reading Room Supervisor, for sending the authors several news clippings about Richardson (April 2007).

24. See L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 223-224: "The lapse of time brought many changes in the governing powers of the college. [...] Some doubt was felt concerning the title of ... the governor, of New Hampshire, to a seat on the board. The provision of the charter appointing as trustee "John Wentworth, for the time-being governor" might seem to a layman to mean "John Wentworth so long as he shall be governor" and to involve no provision that the right should be transferred to his successor. That appears to have been the view down to 1788, [p. 224] but in that year the board decided that the phrase made the position an *ex-officio* one and since that time the governor has possessed the right to a seat on the board, a privilege which has been exercised only occasionally."

by the state were involved in the Board's deliberations. These state officials were to protect the interests of the state during the Board's deliberations on public funding. The officials included the Speaker of the House, the president of the Senate, the chief justice of the superior court, and members of the governor's council.²⁵

After the Supreme Court's 1819 decision, although the college was not legally affiliated with any church, it received substantial support from the Congregational Church. The college's financial dependence on the church, combined with personal associations with the church held by members of the Trustees, led to practices that were inconsistent with some of the charter's requirements.

But, Dartmouth was a private college as defined by its charter and not a branch of state government; consequently, only the Trustees could enforce the charter. In about 1859, the Trustees violated the charter's language in the process of electing members to the board. Richardson describes two instances (one in 1849 and the other in 1860) where competent candidates for professorships were rejected based on "speculative sentiments in religion" despite the candidates' qualifications for the positions. When a chair of theology was filled in 1849, the Trustees protected their decision with a disclaimer:

"Resolved that the Board have made the appointment of a Professor of Theology in the belief that his religious sentiments are in accordance with the compend of Christian Doctrine set forth by the Westminster

25. With this legislative Act of June 18, 1807, the state of New Hampshire granted the lands known as the "Second College Grant" to Dartmouth College. See pages 628-629 in *A History of Dartmouth College and the Town of New Hanover, New Hampshire (to 1815)*, by Frederick Chase, edited by John K. Lord, Volume 1, Second Edition, The Vermont Printing Company, Brattleboro, 1928. State of New Hampshire. 1807. "An Act granting a certain quantity of land to Dartmouth College, Passed June 18, 1807". *The Public Laws of the State of New Hampshire [microform] passed at a session of the General Court at Hopkinton, June 1807*. Notes: "The copies carefully compared with originals by Philip Carrigan, Secretary." Concord, New Hampshire, Printed by Jesse C. Tuttle for the state, 1807. Pages 33-35, Early American Imprints, Series II: Shaw-Shoemaker, Readex Digital Collections, no. 13198 (filmed).

See also: —. 1918. [Chapter 54] State of New Hampshire. *An Act Granting a Certain Quantity of Land to Dartmouth College*. [Approved June 18, 1807. Original Acts, vol. 19, p. 100; recorded Acts, vol. 17, p. 18. Session Laws, June, 1807, p. 33.]. Pages 601. *Laws of New Hampshire including Public and Private Acts, Resolves, Votes, Etc., vol. Volume Seven, Second Constitutional Period, 1801-1811*. Evans Printing Company, Concord, New Hampshire: edited and published under the direction of the Secretary of State of New Hampshire.

Assembly of Divines in their Shorter Catechism, and that any material departure from that platform is deemed by the Board a sufficient ground of removal from office.”²⁶

In the 1860 case, a Congregational minister submitted a glowing recommendation for a candidate applying for a chair of mathematics, but expressed caution regarding the candidate’s position on “Brother Lee’s peculiar views as set forth in his Eschatology.”²⁷ In both of these cases, the Board disregarded the charter’s language prohibiting discrimination based on religious preference:

“... said trustees of Dartmouth College ... may make and establish such ordinances, orders and laws ... not repugnant to the laws and statutes of our realm of Great Britain, or of this our province of New Hampshire, and not excluding any person of any religious denomination whatsoever, from free and equal liberty and advantage of education, or from any of the liberties and privileges or immunities of the said college, on account of his or their speculative sentiments in religion, and of his or their being of a religious profession different from the said trustees of Dartmouth College.”²⁸

Funding for Dartmouth College

Dartmouth’s original funding was provided by a group of English donors that responded to pleas for support from representatives sent to England and Scotland in 1765 by the college’s founder.²⁹ One of these donors was William, second Earl of Dartmouth (1731-1801), who influenced King George III to also contribute money to the college. Another highly influential donor was John Wentworth, who

26. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Vol. 2, pp. 445 ff. See also: Chase, F. 1913-1928. *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)* (Second Edition, 1928) Edited by John King Lord. Brattleboro: The Vermont Printing Co. Vol. 2, p. 291.

27. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 2, pp. 445-446.

28. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

29. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 1, pp. 53-66. The two college envoys returned home in the spring of 1768.

had been appointed Governor of New Hampshire in 1767.³⁰ Later, Governor Wentworth granted the college a charter and contributed land for the establishment of Dartmouth; however, this grant of land (known as the Landaff Grant) was not the eventual site at which Dartmouth College was established.³¹

To protect their financial interest in the college, the English donors procured a deed of trust from the college's founder. This instrument set up Dartmouth's two boards of trustees. The English board controlled the donations of money from England. The money from England was used primarily to clear land, plant wheat and other crops, and support the students. Expected additional financial support from the New Hampshire assembly did not materialize, but the college received a few donations from individuals in North America. There were other attempts to raise funds to support the college, including a sale of timber on college lands that resulted in a lawsuit which required a payment greater than that received for the trees; an ultimately denied petition to the New Hampshire assembly for permission to conduct a lottery to raise funds; and failed attempts to raise money through individual subscriptions. By 1775, the English funds had been overdrawn by 500 Pounds and the school then separated from the financial control of the English trust.³² After this

30. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Vol. 1, pp. 56-60. Mayo, L. S. 1921. *John Wentworth, Governor of New Hampshire: 1767-1775*. Cambridge, Massachusetts: Harvard University Press. p. 30.

31. See the short essay titled "History", posted on the Dartmouth Outing Club's website (Accessed December 2007). This article includes a chronology of Dartmouth's land grants. Dartmouth College, Dartmouth Outing Club. 1996-2007. "History" (adapted from the article "Stumps and Scholarship" written by Robert S. Monahan '29 for the *Dartmouth Alumni Magazine*, April, 1948): Dartmouth College, <http://www.dartmouth.edu/~doc/secondcollegegrant/history/>. Copyright 1996-2007 Dartmouth College (Accessed December 2007). Excerpt: "In 1766, New Hampshire Governor John Wentworth promised Eleazar Wheelock a grant of a township on which to build Dartmouth College. In 1770, a month after Wheelock received the royal charter, the governor granted the college the township of Landaff (east of Woodsville, New Hampshire), but Wheelock, after viewing the land and others under consideration, decided to establish the college in Hanover."

32. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 1, pp. 62, 128, 129, 131, and 144. Vol. 1, p. 112: "In fact, he [Wheelock] had been told by the governor and others interested in the undertaking that the assembly would probably take the college under its protection and also that much might be done for the institution by private individuals of wealth. [...] the

point, the history of Dartmouth's financial support becomes more complicated. The elder Wheelock's attempts to raise money for the college included a request to the New Hampshire assembly for a grant from the provincial treasury, a plea to the Connecticut assembly for a no-interest loan, and attempts to mortgage his farms. None of these efforts was successful.³³

Grants of land provided another source of revenue for the college. From 1770 to 1807, there were at least four land grants made to Dartmouth. The Landaff Grant was made by Governor Wentworth in 1770. In 1785, the Governor of Vermont gave Dartmouth the gift of a town called Wheelock. The First College Grant (also known as the Clarksville Grant) was given to Dartmouth by New Hampshire in 1789. The Clarksville Grant lands were divided and sold over time to raise money for the college, the last remnants sold in 1872.³⁴ The final land grant was made in 1807 when the state of New Hampshire provided over forty square miles of public land (approximately 27,000 acres) to Dartmouth College.³⁵ The text of the legislative act that

assembly showed no particular desire to be of financial assistance.”

33. L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932., Volume 1, p. 149.

34. For information on the First College Grant, see: Chase, F. 1913-1928. *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)* (Second Edition, 1928) Edited by John King Lord. Brattleboro: The Vermont Printing Co. Volume 1, p. 610.

35. See: Dartmouth College, Dartmouth Outing Club. 1996-2007. "History" (adapted from the article "Stumps and Scholarship" written by Robert S. Monahan '29 for the *Dartmouth Alumni Magazine*, April, 1948): Dartmouth College, <http://www.dartmouth.edu/~doc/secondcollegegrant/history/>. Copyright 1996-2007 Dartmouth College (Accessed: December 2007). This essay includes a chronology of Dartmouth's land grants. Excerpt: "In 1766, New Hampshire Governor John Wentworth promised Eleazar Wheelock a grant of a township on which to build Dartmouth College. In 1770, a month after Wheelock received the royal charter, the governor granted the college the township of Landaff (east of Woodsville, New Hampshire), but Wheelock, after viewing the land and others under consideration, decided to establish the college in Hanover. After the American Revolution the college lost its claim to Landaff in 1791, because of the grant's royal derivation and rival claims by American settlers in Landaff. While the Landaff case underwent litigation to resolve the rival claims, the State of Vermont (then meeting in Norwich) came to the aid of the college and granted it the township of Wheelock (northwest of St. Johnsbury) in 1785. The college divided the town into one-hundred-acre lots and leased these to settlers. Over the years the college has sold most of the lots to meet financial needs but still holds title to some properties in the town. In 1789 the State of New Hampshire, anticipating the college's loss of the Landaff Grant, made good on its original promise of a grant with the town of Clarksville (in northern New Hampshire). This is considered the First College Grant as it was intended to replace the loss

transferred land to the college stated that “incomes of said land shall be applied wholly and exclusively to assist the education of the youths who shall be indigent, and to alleviate the expenses of the number of families in this State whose necessitous circumstances will render it impossible for them to defray the expenses of an education at said seminary without such assistance.”³⁶ The preface to the Act states “the promotion of knowledge among all classes of people is highly necessary for the security of their equal rights as citizens, and for their prosperity as a nation.”³⁷ A legislative committee’s report stated

of the original Landaff Grant. The college sold most of this land in the first two years, and had sold off the rest by 1872. The sale of the Clarksville Grant properties proved to be inadequate and the college petitioned the state for an additional grant in 1792. Several proposals were made in the legislature, but it wasn’t until 1807 that the state responded with the Second College Grant. The lands of the Second College Grant proved to be unattractive to settlers, but sale of timber provided a small but steady income to the college over the next century and a half.” For a different version of the same history, see: Bennett. 1952. *Brief History of the Grant: Dartmouth College*, <http://www.dartmouth.edu/~finance/departments/secondgrant/History%20from%201952.pdf> (Accessed April 2007). Excerpt: “The Second College Grant is the fourth grant of land made to Dartmouth College by New Hampshire. The first was made in 1770 under the Royal Charter of the colony [Landaff Grant] and was lost through litigations in 1791. The New Hampshire state legislature granted to the College in 1785 23,000 acres between St. Johnsbury and Lake Willoughby in Vermont, then a part of New Hampshire, this was the township of Wheelock. Most of this land has been sold, but a few rents are still collected by the College for land leased in Wheelock. The First Grant or Clarksville Grant was requested by the Dartmouth trustees to replace the source of income lost in the Landaff Grant. In 1789 the Clarksville Grant of 36,000 acres in northern Coos County was given to Dartmouth. The division and sale of the land began immediately and by 1872, the entire grant had been sold. In 1792 the first request for additional land was made to the New Hampshire legislature, and after repeated petitioning, the lawmakers granted to Dartmouth a township of 26,800 acres in the northern part of the state next to the Maine boundary.” For more information about the Second College Grant, see: Gile, J. M., Dr. 1922. “The College Grant”. *Dartmouth Alumni Magazine*, March 1922. <http://dartmouth.edu/~finance/departments/secondgrant/DAM%201922.pdf> (Accessed April 2007); 1940. “Trees Provide Dartmouth Scholarships” *New York Lumber Trade Journal*. December 1940. <http://dartmouth.edu/~finance/departments/secondgrant/scholarships%201940.pdf> (Accessed April 2007); Wooster, C. 2006. “Two Centuries of Timber and Trappers: Where Recreation and Logging Coexist”. *Northern Woodlands Magazine* Summer 2006: 22-27. <http://dartmouth.edu/~finance/departments/secondgrant/timber%20and%20trampers.pdf> (Accessed, April 2007).

36. Chase, F. 1913-1928. *A History of Dartmouth College and the Town of Hanover, New Hampshire (to 1815)* (Second Edition, 1928) Edited by John King Lord. Brattleboro: The Vermont Printing Co. Volume 1, pp. 628-629.

37. State of New Hampshire. 1918. [Chapter 54] State of New Hampshire. *An Act Granting a Certain Quantity of Land to Dartmouth College*. [Approved June 18, 1807. Original Acts, vol. 19, p. 100; recorded Acts, vol. 17, p. 18. Session Laws, June, 1807, p. 33.]. Pages 601. Laws of New Hampshire including Public and Private Acts, Resolves, Votes, Etc., vol. Volume Seven, Second Constitutional Period, 1801-1811. Evans Printing Company,

that New Hampshire should not rely on other states for the education of her citizens and that “the respectability, the welfare, and the very existence of the State as an independent sovereignty depend on the general prevalence of literature and useful science among the people” and “that it is the indispensable duty of the Legislature to make further provision at this time for the support and advancement of literature in the State.”³⁸ The land, known today as the “Second College Grant,” is still owned by the college and has been used for farming, hunting, fishing, and other forms of recreation. Proceeds from timber harvests continue to provide revenue to the college.³⁹ This 1807 legislative Act included an amendment to Dartmouth’s charter that made officials of the state of New Hampshire *ex officio* members of the board whenever the Trustees took action on grants from the state.⁴⁰ This legislative

Concord, New Hampshire: edited and published under the direction of the Secretary of State of New Hampshire. (R. Flower received a scanned copy of this document from the New Hampshire State Library via email on 12/21/2007). See also: —. 1807. “An Act granting a certain quantity of land to Dartmouth College, Passed June 18, 1807”. *The Public Laws of the State of New Hampshire [microform] passed at a session of the General Court at Hopkinton, June 1807*. Notes: “The copies carefully compared with originals by Philip Carrigan, Secretary.” Concord, New Hampshire, Printed by Jesse C. Tuttle for the state, 1807. Pages 33-35, Early American Imprints, Series II: Shaw-Shoemaker, Readex Digital Collections, no. 13198 (filmed).

38. Frederick Chase, *A History of Dartmouth College and the Town of New Hanover, New Hampshire (to 1815)*, Second Edition, Edited by John K. Lord, The Vermont Printing Company, Brattleboro, 1928, Volume 1, pp. 628-629.

39. See Dartmouth’s Finance & Administration Division for additional info, especially the “Summary of the Second College Grant Master Plan,” at <http://www.dartmouth.edu/~finance/docs/grantmasterplansummary.pdf>. Dartmouth College Division of Finance & Administration. 2007. *Second College Grant*: Dartmouth College. <http://www.dartmouth.edu/~finance/departments/secondgrant/grantarticles.html> (Accessed: December 18, 2007). Excerpts: “Timber harvesting has been culturally and economically important to the region for hundreds of years, and the Grant provides income for Dartmouth College. The intent is for harvesting to continue, but in balance with other management goals, such as wilderness recreation, preservation of natural places and waters, and long-term sustainability. [...] The Second College Grant, given to Dartmouth College by the State of New Hampshire in 1807, is and shall remain a multiple-use forested ecosystem, important to Dartmouth for educational, research, recreational, wood production and financial purposes.”

40. The text of the 1807 Act reads: “And be it further enacted, that the members of the Council, the President of the Senate, the Speaker of the House of Representatives and the Chief Justice of the Superior Court shall hereafter *ex officio* be members of the board of Trustees of said College in respect of this and any further grant to said College which may be made by this State —”. State of New Hampshire. 1918. [Chapter 54] State of New Hampshire. *An Act Granting a Certain Quantity of Land to Dartmouth College*. [Approved

Act, which preceded the federal Morrill Act of 1862 by fifty-five years, is an important milestone in the history of public support for college programs that answer the needs of the state and provide access to higher education for financially needy students.

In summary, donations from wealthy individuals and revenue derived from government grants of public land were primary sources of early support for Dartmouth College. In addition to these sources of funding, fees were collected from students for tuition and other expenses.⁴¹

INTELLECTUAL STRUCTURE OF DARTMOUTH COLLEGE

In the eighteenth century, a liberal education that included studies in Greek, Latin, mathematics, philosophy, and theology was thought to be the most appropriate preparation for those who would lead the church and the state. More practical courses were not generally offered in universities until the mid-nineteenth century.⁴² Dartmouth followed this trend. Some aspects of Dartmouth's curriculum can still be found in today's college curricula; however, much of the classical curriculum has been abandoned.

In 1797, all Dartmouth College students were required to study the same subjects.⁴³ The school day began and concluded with bible readings and prayer. During the first two years of college study, two thirds of the curriculum was devoted to the study of the Greek and

June 18, 1807. Original Acts, vol. 19, p. 100; recorded Acts, vol. 17, p. 18. Session Laws, June, 1807, p. 33.]. Pages 601. *Laws of New Hampshire including Public and Private Acts, Resolves, Votes, Etc.*, vol. Volume Seven, Second Constitutional Period, 1801-1811. Evans Printing Company, Concord, New Hampshire: edited and published under the direction of the Secretary of State of New Hampshire.

41. For additional information on the topic of lands donated to Dartmouth College, see Frederick Chase, *A History of Dartmouth College and the Town of New Hanover, New Hampshire (to 1815)*, Second Edition, Edited by John K. Lord, The Vermont Printing Company, Brattleboro, 1928, Vol. 1, pp. 632-633. Tuition is discussed in Leon Burr Richardson, *History of Dartmouth College*, Dartmouth College Publications, Hanover, New Hampshire, 1932, Volume I, pp. 119, 243.

42. See: Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. p. 332-336.

43. Leon Burr Richardson, *History of Dartmouth College*, Dartmouth College Publications, Hanover, New Hampshire, 1932. The 1797 course of study is described in Vol. 1, p. 248-250, and the courses outlined in the 1822 catalog appear in Vol. 1, pp. 376-377.

Roman classics, with the remaining third devoted to studies in mathematics, logic, geography, astronomy, English grammar, natural and moral philosophy, and surveying. In the senior year, the study of classics was replaced with theology, metaphysics, and political law, with readings in works by John Locke, Jonathan Edwards, and Dugald Stewart.⁴⁴ Academic exercises included translation, English composition, and public speaking. In addition, students were required to memorize passages in books and take turns presenting them in the classroom. This instruction method was known as recitation.⁴⁵

This approach to curriculum had not appreciably changed by the time of the printing of Dartmouth's first catalogue in 1822. It includes general areas of study, works of specific authors, and academic exercises. The first year of studies included the works of the Roman historian Livy,⁴⁶ the Roman poet Horace,⁴⁷ and the Greek poets He-

44. Scottish philosopher Dugald Stewart (1753-1828) was professor of mathematics (1775-85) and moral philosophy (1785-1810) at Univ. of Edinburgh. A disciple of Thomas Reid's commonsense philosophy, he was persuaded that the human mind can be studied scientifically, and argued that moral qualities exist independently of perception. Stewart promoted Adam Smith's political economy. Among Stewart's works are *Outlines of Moral Philosophy* (1793), *Elements of the Philosophy of the Human Mind* (3 vol., 1792-1827), *Philosophical Essays* (1810), and *View of the Active and Moral Powers of Man* (1828). See: Hope, V. 2005. "Stewart, Dugald" *The Oxford Companion to Philosophy*, Oxford University Press. Oxford Reference Online. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t116.e2417>. See also: 2000a. "Stewart, Dugald" in Drabble. M., ed. *The Oxford Companion to English Literature*, Oxford University Press. Oxford Reference Online. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t113.e7204>.

45. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, pp. 248-249 and 376-377. See also: Pak, M. S. 2008. "The Yale Report of 1828: A New Reading and New Implications". *History of Education Quarterly* 48: 30-57. On page 44, Pak discusses the rote memory instructional methods of the nineteenth-century denominational colleges in America, and in a footnote provides a quote from Andrew Dickson White who describes recitation in classrooms at Yale in the 1850s: "The textbook was simply repeated by rote. Not one student in fifty took the least interest in it; and the man who could give the words of the text the most glibly secured the best marks." See: Andrew White, *Autobiography of Andrew Dickson White* (New York: The Century Co., 1905), Vol. 1, p. 27.

46. Livy (Titus Livius, 59 BCE - CE 17) was a Roman historian. His work, *Ab urbe condita libri* (*Books from the Foundation of the City*), covered Roman history from the origins of Rome to 9 BCE in 142 books. Of these, only books 1-10 and 21-45 survive. Briscoe, J. 2000. "Livy" in Hornblower S., Spawforth T., eds. *Who's Who in the Classical World*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t10.e314>.

47. Horace (Quintus Horatius Flaccus, c.65 - c.08 BCE) is a Roman poet. His works include

siod⁴⁸ and Homer.⁴⁹ Also included were the *Roman Antiquities of Dionysius of Halicarnassus*,⁵⁰ readings from *Graeca Majora*,⁵¹ and studies in rhetorical grammar, arithmetic, and algebra. In addition, the students were assigned exercises in reading, translation, English composition, and declamation (public debating skills). During the second year of studies, the students studied Euclid's *Elements of Ge-*

two books of *Satires*, *The Epodes* (or *Iambi*), *The Odes*, *The Epistles*, and *Ars Poetica*. Anon. 2008a. "Horace". *Philip's World Encyclopedia*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t142.e5468>.

—. 2007. "Horace" in Roberts J., ed. *Oxford Dictionary of the Classical World*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t180.e1078>.

48. Hesiod (c.700 BCE) is one of the oldest known Greek poets, often coupled or contrasted with Homer as the other main representative of early epic. His poems include: *The Theogony*, which deals with the origin and genealogies of the gods, including the divine world-masses Earth, Sea, Sky; *The Works and Days* (*Opera et Dies*), the most read of Hesiodic poems, gives advice for living a life of honest work. Besides moral advice, Hesiod gives much practical instruction, especially on agriculture, seafaring, and social and religious conduct. See: West, M. L. 1998. "Hesiod" in Hornblower S., Spawforth A., eds. *The Oxford Companion to Classical Civilization*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e314>.

49. The earliest and greatest works of Greek literature, the *Iliad* and the *Odyssey*, are attributed to the poet Homer. There is some agreement to date the poems in the second half of the 8th century BCE, with the *Iliad* at about 750, the *Odyssey* about 725. Willcock, M. M. Ibid. "Homer", Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e322>.

50. *Roman Antiquities* (*Antiquitates Romanae*), a work of twenty books, of which only the first eleven and excerpts from the others are extant, was written by Dionysius of Halicarnassus, a Greek critic and historian, who lived and taught rhetoric at Rome. Russell, D. A. F. M. Ibid. "Dionysius of Halicarnassus", Oxford University Press, 1998. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e214>.

51. *Analekta Hellēnika Hēssona and Meizona*, a two-volume textbook set with annotated extracts from Greek literature produced by Andrew Dalzel (formerly Dalziel) (1742-1806) in 1789, are also referred to as *Graeca Majora*, and *Graeca Minora*, and as *Collectanea Graeca*. These books became standard in Scotland and beyond, and went through four American editions. Dalzel was Professor of Greek at the University of Edinburgh, and helped to found the Royal Society of Edinburgh in 1783. Fry, M. 2004. "Dalzel, Andrew (1742-1806)" in Matthew H. C. G., Harrison B., eds. *Oxford Dictionary of National Biography*, Oxford: OUP, 2004. Online ed., edited by Lawrence Goldman, January 2009. <http://www.oxforddnb.com/view/article/7080> (Accessed: June 2, 2011). Innes, C. W. 1861. *Memoir of Andrew Dalzel, Professor of Greek in the University of Edinburgh*. Edinburgh. p. 49.

ometry; ⁵² Cicero's *De Oratore*; ⁵³ the works of the Greek historians Thucydides and Xenophon; ⁵⁴ the Greek orators Demosthenes, Aeschines, Lysias, and Isocrates; ⁵⁵ the treatise *On Sublimity* by "Longi-

52. Euclid (c. 330 BCE – 260 BCE) was a Greek mathematician and is best known for his work, *Elements of Geometry*, a thirteen volume treatise covering plane geometry, number theory, irrationals, and solid geometry. Anon. 1999. "Euclid". *A Dictionary of Scientists*: Oxford University Press, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t84.e460>.

53. Marco Tullius Cicero (106-43 BCE) was a Roman orator, lawyer, philosopher and politician. His works include political and judicial speeches, letters, and treatises on rhetoric and philosophy, including *De Re Publica (On the Republic)*, *De Oratore (On the Orator)*, a treatise in three books on rhetoric, and *De Officiis (On Duties)*. In *De Officiis*, Cicero addresses his son Marcus, a young man studying in Athens, asking him to pursue his studies more diligently. *De Officiis* can also be read as a letter to all aspiring politicians. Cicero's works had a strong influence on literature from the early Middle Ages until the nineteenth century. Kries, D. 2003. On the Intention of Cicero's "De Officiis". *The Review of Politics* 65: 375-393.

54. Thucydides (c460 - c404 BCE) is a Greek historian and Athenian General. He is the author of the eight-volume *History of the War (Peloponnesian War)* between Athens and Sparta, 431 - 404 BCE. His history is a classic realist treatise, which seeks to understand and explain war without reference to divine intervention by gods. Xenophon (c.430 - 354 BC) was a Greek historian. He studied with Socrates. "His best-known work is *Anabasis*, an account of his march with a Greek mercenary army across Asia Minor in 401-399 BC in support of a pretender to the Persian throne. Other works include a history of Greece from 411 to 362 BC." 2009. "Thucydides" in McLean E. I., McMillan A., eds. *The Concise Oxford Dictionary of Politics*: Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t86.e1386>. Wade-Gery, H. T., Denniston, J. D., Hornblower, S. 1998. "Thucydides" in Hornblower S., Spawforth A., eds. *The Oxford Companion to Classical Civilization*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e625>. 2008. "Xenophon". *Philip's World Encyclopedia*: Oxford Reference Online. Oxford University Press. UC Santa Cruz. 3 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t142.e12705>.

55. Demosthenes (384 – 322 BCE) was an Athenian orator and statesman. In his *Philippics*, a series of speeches, he tried to unite the Greeks against the growing power of Philip II of Macedon. Aeschines (born in Athens c.390 BC or earlier) is an Athenian orator and rival of Demosthenes. Only three of his speeches survive: *Against Timarchus*, *On the Embassy*, and *Against Ctesiphon*. As a group, the speeches provide important information on Athenian law and politics, Demosthenes and his career, sexuality and social history, and the historical rivalry between Athens and Macedonia. Admired for the simplicity and naturalness of his style, the Attic orator and professional speechwriter Lysias (c.458-c.380 BC) composed speeches for litigants to deliver in court. His speeches cover a range of cases, from murder and treason to adultery and embezzlement. Isocrates (436-338 BC), Athenian orator of central importance, wrote speeches for others to use in the courts. In 346 he published his most important treatise, the *Philippus*. Isocrates has an important place within the history of education. For him, the true concern of higher education was 'discussion of general and practical matters', the training of men for discussion and action in the sphere of the practical. See: Anon. 2009a. "Demosthenes" in Birch D., ed. *The Oxford Companion to English Literature*, Oxford University

nus”;⁵⁶ and works by the Greek philosopher and founder of the science of logic, Aristotle.⁵⁷ Dartmouth’s students completed practical courses in trigonometry, surveying, navigation, and history courses that included readings from *Excerpta Latina*,⁵⁸ and Tytler’s *General*

Press Inc. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t113.e2118>. —. 1996. “Aeschines” in Howatson M. C., Chilvers I., eds. *The Concise Oxford Companion to Classical Literature*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 4 June 2011, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t9.e71>. 2007. “Lysias” in Roberts J., ed. *Oxford Dictionary of the Classical World*. Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t180.e1323>. 1996. “Lysias” in Howatson M. C., Chilvers I., eds. *The Concise Oxford Companion to Classical Literature*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t9.e1743>. Cawkwell, G. L. 1998. “Isocrates” in Hornblower S., Spawforth A., eds. *The Oxford Companion to Classical Civilization*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e343>.

56. The treatise *Peri Hypsous*, or *On Sublimity*, attributed to “Longinus,” is a famous treatise on the role of emotion (pathos) in the practices of writing, oratory, and reading. Longinus identifies five sources of sublimity: “great thoughts, strong emotions, certain figures of thought and speech, noble diction, and dignified word arrangement.” Anon. 2001. “Longinus: 1st Century CE”. Pages 135-137 in Leitch V. B., Cain W. E., Fink L. A., Johnson B. E., McGowan J., Williams J. J., eds. *The Norton Anthology of Theory and Criticism*. New York: W. W. Norton & Company. p. 135-136. “In the Renaissance and early modern period, the author was assumed to be Cassius Longinus. Modern scholars continue to refer to the author as Longinus, and regard the treatise as written by an otherwise unknown writer in the first, or more probably in the second century after Christ. *On Sublimity* was little known until the late seventeenth century when Nicolas Boileau-Despréaux, a leading neoclassical poet and critic, published a French translation and commentary.” See: Kennedy, G. A. 1999. *Classical Rhetoric & Its Christian and Secular Tradition from Ancient to Modern Times*. Second Edition. Chapel Hill: University of North Carolina Press. Pages 134-135.

57. Greek Philosopher, and founder of the science of logic, Aristotle’s metaphysics is based on the principle that all knowledge proceeds directly from observation of the particular. His principal works are the *Organon* (six treatises on logic and syllogism); *Politics* (the conduct of the state); *Poetics* (analysis of poetry and tragedy); and *Rhetoric*. Anon. 2008b. “Aristotle”. *Philip’s World Encyclopedia*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t142.e638>.

58. See Cohen, S. J. D. 1981. “Sosates the Jewish Homer”. *The Harvard Theological Review* 74: 391-396. Excerpt: “The *Excerpta Latina Barbari* is a seventh- or eighth-century Latin translation of a lost Greek chronicle written in the early fifth century. It is a complex work consisting of two parts: a history of the world from its creation to the death of Cleopatra, and a collection of lists of rulers from the kings of Assyria to the consuls of Rome. As is true of most medieval chronicles, the information provided is frequently confused, erroneous, or self-contradictory... .”

History.⁵⁹ A course in English included assigned studies from Blair's *Rhetoric and Belles Lettres*,⁶⁰ with exercises in English composition and declamation. English composition and declamation continued in the third year. Additional course work included readings from the Roman historian Tacitus,⁶¹ and the works of the Greek tragic playwrights Sophocles and Euripides.⁶²

All third year students completed required courses in trigonometry, geometry, chemistry, natural theology,⁶³ natural philosophy

59. *Elements of General History, Ancient and Modern*, by Alexander Fraser Tytler, Lord Woodhouselee, Late Lord Commissioner of Justiciary in Scotland, and formerly Professor of Civil History and Greek and Roman Antiquities in the University of Edinburgh.

60. Blair, H. 1783. *Lectures on Rhetoric and Belles Lettres*: London : printed for W. Strahan; T. Cadell; and W. Creech, in Edinburgh. Hugh Blair (1718-1800) was a lecturer in rhetoric and belles lettres at the University of Edinburgh for 25 years beginning in 1759. *The Oxford English Dictionary*. 1989 2nd ed.-a. 'belles-lettres, n. pl.': OED Online. Oxford University Press. 2 Jan. 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50019976>. The term "Belles Lettres" is defined as "elegant or polite literature or literary studies. A vaguely-used term, formerly taken sometimes in the wide sense of 'the humanities,' literæ humaniores; sometimes in the exact sense in which we now use 'literature'; in the latter use it has come down to the present time, but it is now generally applied (when used at all) to the lighter branches of literature or the æsthetics of literary study."

61. Publius (or Gaius) Cornelius Tacitus (c.56 –c. 120 CE) is a Roman historian, orator and public official His *Annals* and *Histories* are major works on the history of the Roman Empire. See: Martin, R. H. 1998. "Tacitus" in Hornblower S., Spawforth A., eds. *The Oxford Companion to Classical Civilization*, Oxford University Press, 1998. Oxford Reference Online. Oxford University Press. UC - Santa Cruz. 22 November 2010 <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t133.e612>>.

62. Sophocles (496/5 - 406 BCE), a Greek tragedian, wrote about 120 plays, of which seven survive: *Ajax*, *The Women of Trachis*, *Electra*, *Philoctetes*, and the group known as the Theban plays—*Oedipus the King* (*Oedipus Rex* or *Oedipus Tyrannus*), *Oedipus at Colonus*, and *Antigone*. See: Anon. 2009b. "Sophocles" in Birch D., ed. *The Oxford Companion to English Literature*.

Euripides (480 - 406 B.C.E.) was an Athenian tragic playwright who used mythology as the source for his plots. Of about 90 works, the most popular plays are *The Medea*, *The Bacchae*, *The Hippolytus*, and *The Alcestis*. Leeming, D. 2004. "Euripides". *The Oxford Companion to World mythology*, Oxford University Press. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 22 November 2010, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t208.e530>.

63. "Natural theology ... attempts to establish God's existence and attributes through "natural reason" (rational inference) independently of revelation." From: Brooke, J. H. 2003. "natural theology" in Heilbron J. L., ed. *The Oxford Companion to the History of Modern Science*, Oxford Reference Online. Oxford University Press. UC - Santa Cruz. 10 January 2008. <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t124.e0504>. Exponents of natural theology claim that God's existence and at least some of his attributes can be known through philosophical argument.

(the study of the physical world), astronomy, moral and political philosophy, and Greek. The catalog lists the following as required readings for all fourth, or senior year students: Locke, *On Human Understanding*,⁶⁴ Edwards *On the Will*,⁶⁵ Butler's *Analogy*,⁶⁶

See: 2000b. "Natural theology" in Bowker J., ed. *The Concise Oxford Dictionary of World Religions*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 10 January 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t101.e5123>. "A philosophy which tries to link the study of natural phenomena with the notion of divine providence, stressing that harmony and order in nature are evidence of God's design." Quote from: 1999. "natural theology" in Allaby A., Allaby M., eds. *A Dictionary of Earth Sciences*, Oxford University Press. Oxford Reference Online. UC Santa Cruz. 10 January 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t13.e5559>.

64. John Locke (1632-1704) sought to determine the origins and limits of human knowledge, concluding that our knowledge is derived from the information we receive through our senses and our experiences. "Though the familiar use of things about us, take off our wonder; yet it cures not our ignorance." Locke, J., *An Essay Concerning Human Understanding* (1689) (Book III, Chapter vi, section 9).

65. Jonathan Edwards (1703-1758), an American philosophical theologian, and graduate of Yale University (undergraduate years 1716-1720, graduate studies 1721-1722), wrote *A Careful and Strict Enquiry into the Modern Prevailing Notions of that Freedom of the Will, Which Is Supposed to be Essential to Moral Agency, Virtue and Vice, Reward and Punishment, Praise and Blame* (1754) ("Freedom of the Will" for short). For more information, see: The Jonathan Edwards Center at Yale University (accessed December 28, 2007): <http://edwards.yale.edu/major-works/freedom-of-the-will/>. Excerpt: "In this monumental work, Edwards is at pains to combat the 'prevailing notions,' advanced primarily by Arminians, that the will is 'self-determined' in the sense that our choices are not predetermined by any other cause but the exercise of will itself, or are exercised from a state of 'indifference.' For Edwards, this was nonsensical and dangerous, because it denied the sovereignty of God as first cause."

"In the eighteenth century ... a theological debate ... began in American theological circles over the nature of the will. The debate began with the publication of Jonathan Edwards' ... famed treatise *The Freedom of the Will* in 1754, a work that aimed to defend a deterministic Calvinistic psychology of the will against the threats of 'Arminianism,' a version of evangelical Christianity that ascribed a degree of indeterminist freedom to the human will." (Quote found on page 349) Kosits, R. D. 2004. "Of Faculties, Fallacies, and Freedom: Dilemma and Irony in the Secularization of American Psychology." *History of Psychology* 7: 340-366.

See also: R. Freeman Butts, *A Cultural History of Western Education: Its Social and Intellectual Foundations*. Second Edition. McGraw-Hill Book Company, Inc., New York, 1955. p. 321: "The doctrine of innate depravity, promulgated by Cotton Mather early in the century, was reaffirmed by Jonathan Edwards ... he pictured a universe completely controlled by an angry God who manipulates the world for purposes of granting salvation to the elect and meting out eternal punishment to sinners. He rejected the idea of free will and insisted that God exerts complete control over man's will and destiny. He rejected the Arminian notions that man can be saved by a life of good works and argued that man can be saved only by conversion ... he viewed "natural man" as sinful and evil." R. Freeman Butts (1910-2010) was Professor Emeritus of Education at Teachers College, Columbia University.

66. Joseph Butler (1692-1752) was a bishop in the Church of England, preacher to the royal court, moral philosopher, and author. His book, *The Analogy of Religion, Natural and*

Stewart's *Elements of Philosophy*,⁶⁷ Paley's *Evidences of Christianity*,⁶⁸ and *The Federalist*.⁶⁹ Fourth year academic exercises included dissertations, forensic disputes,⁷⁰ and debates.⁷¹

A college's curriculum and its faculty are inseparable elements of its intellectual structure. Ultimately it is individual faculty members or other qualified persons who deliver the curriculum. Both by tradition and necessity, instructors are given wide latitude in de-

Revealed, to the Constitution and Course of Nature, was first published in 1736. Butler defended revealed religion against the rationalists and Deists of his time. See: *Encyclopædia Britannica*. 2007. "Butler, Joseph". *Encyclopædia Britannica Online*. 27 Dec. 2007, <http://search.eb.com/eb/article-9018322>. In the nineteenth century, Butler's work appeared in the curricula of universities, including Oxford and Cambridge. See: Cunliffe, C. 2004. "Butler, Joseph (1692–1752)" in Matthew H. C. G., Harrison B., eds. *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, <http://www.oxforddnb.com/view/article/4198> (accessed December 28, 2007).

67. Stewart, Dugald 1753-1828, professor of moral philosophy from 1785 to 1810 at University of Edinburgh (founded in 1582). The first volume of his *Elements of the Philosophy of the Human Mind* was published in 1792, the second in 1814, the third in 1827.

68. William Paley, D.D. (Archdeacon of Carlisle) (1743-1805), was born in Peterborough, England. He trained for the Anglican priesthood, graduated from Christ's College, Cambridge 1763, and was appointed a fellow and tutor of his college in 1766. His book, *A View of the Evidences of Christianity* (1794), was required reading at Cambridge University until the 20th century. In his book, *Natural Theology; or, Evidences of the Existence and Attributes of the Deity, Collected from the Appearances of Nature* (1802), Paley introduced the metaphor of the watchmaker and the intelligent designer: "The marks of design are too strong to be gotten over. Design must have had a designer. That designer must have been a person. That person is GOD." Paley, W. 1813. *Natural Theology; or, Evidences of the Existence and Attributes of the Deity, collected from the appearances of Nature* [first published in 1802]. London: S. Hamilton, Weybridge. p. 441.

69. *The Federalist: a collection of essays, written in favour of the new Constitution, as agreed upon by the Federal Convention, September 17, 1787*. In two volumes. Each essay signed: Publius. New York : Printed and sold by J. and A. M'Lean, no. 41, Hanover-Square, [1788]. First complete edition in book form. Written by Alexander Hamilton (1757-1804), James Madison (1751-1836), and John Jay (1745-1829).

70. See: *The Oxford English Dictionary*. 1989 2nd ed.-b. "forensic": OED Online. Oxford University Press. 28 Dec. 2007, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50088116>: "A college exercise, consisting of a speech or (at Harvard) written thesis maintaining one side or the other of a given question." Allen, R. 1999. "forensic". *Pocket Fowler's Modern English Usage*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 29 December 2007, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t30.e1496>. "Forensic means 'connected with courts of law' (from Latin *forum* meaning 'public square' where among other things judicial business was done)."

71. Leon Burr Richardson, *History of Dartmouth College*, Dartmouth College Publications, Hanover, New Hampshire, 1932. These courses, outlined in the 1822 catalog, appear on pp. 376-377.

livering the curriculum once a course commences. At Dartmouth, instructors ranked as tutor provided courses to the students of the two lower class years, those ranked as professors taught specific subjects to the junior class, and the president taught the senior class. Dartmouth's tutors were typically recent Dartmouth graduates and many of them played important roles in the college's history. For example, Francis Brown (1784-1820), Dartmouth class of 1805, was a tutor at Dartmouth from 1806 to 1809, and President of Dartmouth College from 1815 to 1820. Asa McFarland (1769-1827), Dartmouth class of 1793, was a tutor at Dartmouth from 1795 to 1797, and a college trustee from 1809 to 1822.⁷²

In the earliest years of the college, the faculty was noteworthy in at least three ways. One is the familial relations so many had to the founding president. Another was that nearly all were themselves early graduates of Dartmouth, and the third is their tremendous first names. During the first year after its establishment, Dartmouth's faculty consisted of the college founder, Reverend Eleazar Wheelock, and two tutors—his former student, Bezaleel Woodward, and his son Ralph Wheelock. John Wheelock (1754-1817), another of Reverend Eleazar Wheelock's sons, graduated from Dartmouth in 1771 and was a college tutor from 1772 through 1774. He was appointed President of the college in 1779 and removed from the Presidency by the Trustees in 1815.⁷³

During the early years of John Wheelock's presidency, Dartmouth's teaching staff consisted of himself and three others—Sylvanus Ripley, the same Bezaleel Woodward, and John Smith. Professor Smith taught languages, Professor Sylvanus Ripley (John Wheelock's brother-in-law) taught theology, and Professor Woodward (also a brother-in-law to John Wheelock) taught mathematics.⁷⁴ After the death of Professor Ripley, only two professors, John Smith and Bezaleel Woodward, as-

72. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 252-253. For short biographies of Dartmouth College Professors Francis Brown and Asa McFarland, see p. 122 and pp. 68-69, respectively, in Chapman, G. T., Reverend, D.D. 1867. *Sketches of the Alumni of Dartmouth College, from the first graduation in 1771 to the present time, with a brief history of the institution*. Cambridge, MA: Riverside Press.

73. *ibid.* pp. 13-14.

74. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 252.

sisted by the college president and one tutor, taught math, languages, history, and metaphysics between the years 1787 to 1803.

A quick look at the biographies of three of Dartmouth's professors reveals the reach of the Wheelock family influence that dominated Dartmouth College during its first decades and contributed to the discord over college governance between its Board of Trustees and college President John Wheelock (the founder's son).

John Smith (1752-1809), Dartmouth's first professor and graduate of Dartmouth's class of 1773, studied divinity with Dartmouth's founder, Rev. Eleazar Wheelock. Smith was a tutor at Dartmouth from 1774 to 1778. As Professor of Languages, he taught English, Latin, Greek, and other languages from 1778-1809. He was the college librarian from 1779-1809 and Trustee of the College from 1788-1809.⁷⁵

Sylvanus Ripley (1749-1787) was accepted as a charity student by Wheelock in 1767 to study at Moor's Indian Charity School in Lebanon, Connecticut (founded by Wheelock in 1754), prior to Dartmouth College receiving its charter in 1769. After his graduation from Dartmouth in 1771, he was retained as a tutor at the college until 1782 when he was appointed to be Dartmouth's first Professor of Theology. Around 1776, Ripley was appointed to the college's board of Trustees to replace deceased trustee Rev. William Patten (Rev. Patten had been married to Eleazar Wheelock's daughter, Ruth.). In addition, Ripley succeeded his father-in-law's position as pastor of the Presbyterian Church in Hanover and Hartford, New Hampshire. He married Eleazar Wheelock's daughter, Abigail Wheelock (1751-1818).⁷⁶

75. See L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 175-176. See also: *Sketches of the Alumni of Dartmouth College, from the first graduation in 1771 to the present time, with a brief history of the institution*, by Rev. George T. Chapman, D.D. of the class of 1804. Printed at the Riverside Press, Cambridge, Massachusetts, 1867, pp. 15-16; Cogswell, W. 1846. *The New Hampshire Repository; devoted to education, literature, and religion*. Volume I. Gilmanton, New Hampshire: Printed by Alfred Prescott. pp. 210-213.

76. See L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume I, pp. 15, 68, 110, 121, 133, 203. See also: *Sketches of the Alumni of Dartmouth College, from the first graduation in 1771 to the present time, with a brief history of the institution*, by Rev. George T. Chapman, D.D. of the class of 1804. Printed at the Riverside Press, Cambridge, Massachusetts, 1867, p. 13; New Hampshire Historical Society. 1832. *Collections of the New Hampshire Historical Society, Volume III*. Concord, New Hampshire: Printed by Jacob B. Moore. p. 104; Tucker, W. H. 1889. *History of Hartford, Vermont, July 4, 1761-April 4, 1889*. Burlington, Vermont:

Bezaleel Woodward was one of Eleazar Wheelock's early students. He received his degree from Yale in 1764, went on to study theology, and then returned to work for Wheelock as a bookkeeper and a teacher. During Dartmouth's first year, Bezaleel Woodward was a tutor at Dartmouth along with Ralph Wheelock, one of the founder's sons. From 1782 until his death in 1804, he served the college as Professor of Mathematics and Philosophy. He married Wheelock's daughter, Mary (1748-1807). Bezaleel Woodward's son, William H. Woodward (1774-1818), who graduated from Dartmouth in 1792, practiced law in Hanover and served as treasurer of the college from 1805 to 1816.⁷⁷

The library is a component of the intellectual structure that is crucial to the preservation and transmission of knowledge. Of the importance of the library in colonial higher education, librarian and educator Louis Shores (1904-1981) wrote:

"In the first place, the early American college usually sought to prove its existence by the acquisition of educational property and most frequently this property was books or a private library. In the second place, presidents, trustees, and scholars were willing to accept an institution as respectable and worthy of taking its place with the English institutions, Oxford and Cambridge, only when a considerable library had been acquired. In the third place, many of the colleges' most important benefactors, if not all of them, expressed their interest most frequently by donating books or contributing money to the library, and the college frequently assumed the names of such benefactors."⁷⁸

The origins of Dartmouth's library antedate the college charter by about six years. It was begun at Eleazar Wheelock's Indian charity school, and the books were later acquired by Dartmouth College. The

The Free Press Association. Chapter XVII, "Presbyterian Church in Dothan," p. 242.

77. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume I, pp. 15, 101, 121, 203. See also: *Sketches of the Alumni of Dartmouth College, from the first graduation in 1771 to the present time, with a brief history of the institution*, by Rev. George T. Chapman, D.D. of the class of 1804. Printed at the Riverside Press, Cambridge, Massachusetts, 1867, p. 67. William H. Woodward is named in the U.S. Supreme Court case, *Trustees Of Dartmouth College v. Woodward*, 17 U.S. 518 (1819).

78. Shores, L. 1934. *Origins of the American College Library 1638-1800*. [Ph.D. dissertation, Department of Higher Education, George Peabody College for Teachers; Nashville, Tennessee, 1934]. p. 49. Louis Shores, librarian and educator, founded the *Journal of Library History* in 1966 while he was dean of the Library School at Florida State University. In 1946, he co-founded the American Library History Roundtable (ALHRT) of the ALA.

first recorded gift to the Indian school's library was made in 1763. The titles of the twenty books, all of which are theological, are listed in a letter to Eleazar Wheelock, from the donor William Dickson. Some of the book titles are: *Confutation of the Reason and Philosophy of Atheism, Heaven and Hell on Earth, Doolittles Catholicism, and Life of God in the Soul of Man*.⁷⁹

At the time of Dartmouth's founding, colleges did not need large libraries. The prescribed curriculum consisted largely of courses taught through the memorization and recitation of textbooks, and did not include research.⁸⁰ In 1770, Dartmouth's books were housed in the personal residence of Bezaleel Woodward, who served as librarian. A year later, the library was moved to the old College Hall, and in 1783, the books were moved to President Wheelock's house. Later, the library was moved to the first floor of the New College building. In 1779, John Smith, Professor of Languages, was appointed librarian and he remained in that position for thirty years. The library was open to each class of students for only one hour every two weeks.⁸¹ Library hours typically had to be coordinated with the teaching schedule of the faculty member who doubled as librarian.⁸² Restrictive library regulations and a limited collection at Dartmouth's library encouraged the establishment of student literary societies that maintained their own separate libraries for the use of their members.⁸³ By 1802, Dartmouth's

79. Ibid. pp. 46, 97-98. The letter from William Dickson to Eleazar Wheelock, dated April 22, 1763, is preserved in the Dartmouth Library. Louis Shores reproduced the text of the letter on pages 97-98 of his Ph.D. dissertation, *Origins of the American College Library 1638-1800* (1934).

80. Bush-Brown, A. 1958. *Image of a University: A Study of Architecture as an Expression of Education at Colleges and Universities in the United States between 1800 and 1900* [Ph.D. dissertation, Department of Art and Archaeology, Princeton University, November 1958]. Ann Arbor, Michigan: University Microfilms International. p. 20.

81. See L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 251. Kraus, J. W. 1960. *Book Collections of Five Colonial College Libraries: A Subject Analysis*. [Ph.D. dissertation, University of Illinois at Urbana-Champaign, United States – Illinois, 1960]. Ann Arbor, Michigan: University Microfilms International. pp. 94-96.

82. Harding, T. S. 1959. "College Literary Societies: Their Contribution to the Development of Academic Libraries, 1815-76. II." *Library Quarterly* 29. p. 95.

83. Kraus, J. W. 1960. *Book Collections of Five Colonial College Libraries: A Subject Analysis*. [Ph.D. dissertation, University of Illinois at Urbana-Champaign, United States – Illinois, 1960]. Ann Arbor, Michigan: University Microfilms International. pp. 94-96. Krause cites L.B.

library held about 3000 volumes, most of which were works on theology that had been donated to the college.⁸⁴ For comparison, a subject analysis of the Harvard College library catalogs of 1723-35 indicates that Harvard's book collection was predominately theological, with books on theology claiming fifty-eight percent of the library's holdings. Books on history and science each represented eight percent of the collection, and books on government only two percent.⁸⁵

The history of Dartmouth's medical department illustrates the instrumental role played by the individual professor in the establishment of new programs and the expansion of the university's intellectual structure. In 1798 Dartmouth's Trustees acted on a proposal made by Nathan Smith (1762-1829) to establish a medical department at the college. Smith's lectures, which began the year prior to the official approval of the department, were held in Dartmouth Hall until 1810. At that time, Dr. Smith, who contributed land for the building site, persuaded the New Hampshire legislature to appropriate funds for a medical building. The Trustees did not conceive the idea for the medical department or provide any funding for the project. From 1798 to 1810, Dr. Smith, who had a degree in Medicine from Harvard University (1790), was the primary professor in Dartmouth's medical department. Fees for medical courses, which he collected from his students, were his compensation. Later, the Trustees approved an annual salary for his position. Dr. Smith left Dartmouth College in 1813 to help establish the Medical Institute of Yale College.⁸⁶ He also founded medical

Richardson, *History of Dartmouth College*, p. 270. For additional information on student literary societies at other colleges, see: Harding, T. S. 1959. "College Literary Societies: Their Contribution to the Development of Academic Libraries, 1815-76. II.". *Library Quarterly* 29.

84. See L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 251. Kraus, J. W. 1960. *Book Collections of Five Colonial College Libraries: A Subject Analysis*. [Ph.D. dissertation, University of Illinois at Urbana-Champaign, United States - Illinois, 1960]. Ann Arbor, Michigan: University Microfilms International. pp. 94-96.

85. *ibid.* Table 8, p. 142.

86. A few years before Nathan Smith left Dartmouth, he corresponded with a friend to complain about his heavy teaching load, institutional politics, and financial problems associated with construction of Dartmouth's medical school building. See: Putnam, C. E. 2000. "Smith, Nathan". *American National Biography*, Oxford University Press. <http://www.anb.org/articles/12/12-00858.html>; Online Feb. 2000. Copyright (c) 2000 American Council of Learned Societies (Accessed: January 8, 2008).

schools at Bowdoin College and University of Vermont.⁸⁷

In summary, the Board of Trustees of Dartmouth College controlled the college's intellectual structure through their authority to appoint and remove members of the teaching staff. Areas of intellectual inquiry were regulated both by the oversight of the Trustees and the expertise of the faculty which included the college president, the professors, and recent graduates who served primarily as tutors to students during the two first years of study. Despite the explicit governing authority granted to the Trustees by the charter, the founding president strongly influenced the appointment of teachers and their advancement to the rank of professor. In general, there was one teacher per subject, and all students completed the same course of studies, which was designed as preparation for the Christian ministry.

Dartmouth's students

The Charter of Dartmouth College, granted in 1769, does not specifically define Dartmouth's anticipated students as being male or female. It addresses the education of "children," the "English," "savages," "youth of the Indian tribes," "Indian natives," "children of pagans," "English youth," "such students as shall be admitted into said Dartmouth College," and "any others."⁸⁸ As defined by the Oxford English Dictionary, the term "youth," in the seventeenth through nineteenth centuries, typically referred to a young man, between boyhood and mature age.⁸⁹

Most of the first students to attend Dartmouth College came from New England farms and were "on charity." Their education, housing, and other needs were provided by the college. Students accepted on charity were required to work as missionaries after graduation; however, many students refused to honor their obligation to the school. In about 1772, the number of students paying tuition increased. There were

87. See: L. B. Richardson, *History of Dartmouth College*. Dartmouth College Publications, Hanover, New Hampshire, 1932. Volume 1, p. 228-230. See also: *ibid*.

88. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

89. *The Oxford English Dictionary*. 1989 2nd ed.-c. "youth": OED Online. Oxford University Press. 5 Nov 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50290255>. Especially sense 6a.

separate charges for room and board and incidental expenses. Commodities such as horses, cattle, and wheat were accepted as payment. By the early nineteenth century, the college was no longer financially capable of supporting its students, there was no money available for scholarships, and unpaid charges from students and graduates had accumulated.⁹⁰ By allowing the students to carry debt forward past graduation, the college was making loans to its students. Most students paid their debts to the college, but many were slow to do so, and some never paid.⁹¹

In 1771, there were about 30 students at the school; about twenty-four of these were charity students, of which about five were Indians. Eighty-nine students graduated under the founder's administration from 1769 to 1779, and about 1088 earned degrees under his son, John Wheelock, whose tenure as president extended from 1779 to 1815. Most graduates from the latter period entered the professions of law, medicine, theology, and teaching.⁹²

PHYSICAL STRUCTURE OF DARTMOUTH COLLEGE

In their efforts to convince Dartmouth's founders to build the college in their town, landowners in Hanover offered money, labor and

90. On January 16, 2008, Dartmouth's Trustees approved changes to their policies on tuition and scholarships. Beginning Fall 2008, students from families with incomes less than \$75,000/year will be eligible for free tuition as well as scholarships to cover additional expenses. Dartmouth's 2007-08 tuition is \$34,965. Room, board and mandatory fees are an additional \$10,518; total annual fees are \$45,483. Dartmouth's endowment is about \$3.8 billion. This change follows similar programs recently adopted by Harvard and Yale. " ... the college cited census data indicating that 70 percent of households in the United States earned less than \$75,000 and that median family income was \$46,326. It also said that 13 percent of Dartmouth students were the first members of their families to attend college..." See: *The Associated Press*. 2008. "Dartmouth Joins Push to Reduce Costs for Middle Class". *The New York Times*. January 23, 2008. <http://www.nytimes.com/2008/01/23/education/23dartmouth.html> (Accessed January 25, 2008).

91. Tuition is discussed in Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume I, pp. 119, 243. Charity students are discussed on pp. 105, 154.

92. *Ibid.* Vol. 1, pp. 105-106, 277-278. p. 202: "The whole number of students was only about 30 in the year 1779-80. Ten were graduated at the end of that year, while in 1781 the number was five and in 1782 but four. The corner had been turned, however, for in 1783, fourteen received degrees and in 1784, seventeen. [p. 203] The attendance continued to increase so that the average number of graduates in the six years from 1785 to 1790 was twenty-five, while in the decade 1791-1800 it was thirty-six, with the largest class, numbering forty-nine, in 1791."

land. Townspeople, convinced that the presence of a college would greatly increase the value of their lands, were willing to grant the college large tracts to lure the college to their town. After Hanover was chosen in 1770, land values in that town as much as tripled, and some tracts were withdrawn from the market in the hopes that the price would soon be even higher.⁹³

Dartmouth's physical structure took form in 1770 as a group of roughly constructed temporary structures in New Hampshire's forest wetlands. Before they were completed, the buildings had to be moved because potable water was not found at the site.⁹⁴ By 1784, these buildings had become dilapidated and inadequate. Funds were raised to construct a replacement building, but were insufficient to meet the expense of using brick, the preferred building material for the structure. Instead wood was used to construct Dartmouth Hall, a three-story building that measured 150 feet long by 50 feet wide and resembled Princeton's Nassau Hall in design. The building's frame was completed in 1786; however, the structure was still unfinished by 1789, and was finally completed by 1791.⁹⁵

A chapel for the use of the college and the surrounding community was constructed in 1790 with funds donated by residents of the surrounding village and a contribution from the college president. In the same year, a residence hall also was constructed using private funds, but management for that establishment failed, leaving the students to arrange their own room and board over the following twelve years.⁹⁶

93. *ibid.* Vol. 1, pp. 91-98.

94. *ibid.* Vol. 1, pp. 102-103. Richardson described the site: "An unbroken forest of white pines covered the greater part of it; enormous trees reaching one hundred feet in the air to the first branch, some of them with a total height of 270 feet. Such a forest would be regarded in New Hampshire today, were its like to be found, as one of the scenic wonders of the state, to be preserved at all cost ... trees were felled and allowed to lie as they were until they should be dry enough to burn; making an inextricable tangle, except as paths were cut through the mass. Six acres were thus cleared during the first summer..."

95. *ibid.* Vol. 1, pp. 209-214.

96. *ibid.* Vol. 1, pp. 209-214.

DARTMOUTH COLLEGE AND DARTMOUTH UNIVERSITY: INTERNAL ADMINISTRATIVE CONFLICTS AND A SUPREME COURT DECISION

On August 26, 1815, an internal struggle for control of the Dartmouth College was administratively resolved by the Board of Trustees who used their power to remove the college president, John Wheelock, and appoint a new president, the Reverend Francis Brown. Henry Cabot Lodge, a United States Senator from 1893-1924, wrote that some of the trustees opposed the domination of the Wheelock “family dynasty”, and that this compelled the Trustees’ action.⁹⁷ John Wheelock, the president at the time, had been appointed by his father, the college founder and first president. Moreover, although the charter granted complete control of the administration to the Board of Trustees, including the power of academic appointments, the elder Wheelock had promoted his own students to positions of tutor and professor, thereby exerting huge influence over the intellectual structure of the college. Further, the Trustees and the college president were all members of the Federalist Party, which favored a centralized and aristocratic national government.

Tewksbury (formerly a professor at Teachers College, Columbia University) provides a different perspective from that of Lodge. He claims that John Wheelock supported the state’s efforts to reorganize Dartmouth on a “revolutionary” plan, which was at odds with the traditional religious ideology of his father’s administration.⁹⁸ Professor Richardson of Dartmouth College states that political issues surround-

97. “The trustees and the president were then all Federalists, and there would seem to have been no differences of either a political or a religious nature. The trouble arose from the resistance of a minority of the trustees to what they termed the “family dynasty.” Wheelock, however, maintained his ascendancy until 1809, when his enemies obtained a majority in the board of trustees, and thereafter admitted no friend of the president to the government, and used every effort to subdue the dominant dynasty.” From: Lodge, H. C. 1883. *Daniel Webster*. Cambridge, Massachusetts: The Riverside Press. p. 75. Henry Cabot Lodge (Republican) served in the United States Senate from 1893-1924. He graduated from Harvard University in 1871; graduated from the Harvard Law School in 1874; Ph.D. in history and government from Harvard University 1876; lecturer on American history at Harvard University 1876-1879.

98. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). See pp. 149.

ing the conflict were secondary to the core issue: whether the Wheelock family, or the Trustees, should govern the college.⁹⁹ In his book, *From Crisis to Crisis: American College Government 1636–1819*, Jurgen Herbst, Professor Emeritus of Educational Policy Studies, University of Wisconsin-Madison, discusses the origins of the Dartmouth case in terms of religion and politics. A squabble between the college president and the trustees over “the appointment of the professor of divinity” and closely related issues, soon extended to regional politics and was an important issue in the 1816 election for the state’s governor. In the public political arena, the internal administrative conflict evolved to question the extent to which a college can claim independence from civil government.¹⁰⁰

The internal administrative conflict at Dartmouth was followed by an act of the New Hampshire State Legislature, approved June 27, 1816: *An Act to Amend the Charter and Enlarge and Improve the Corporation of Dartmouth College*.¹⁰¹ The provisions of this act placed the institution under public control, and changed the name of the Trustees of Dartmouth College to the Trustees of Dartmouth University. At this time, New Hampshire was governed by a newly elected majority of Jeffersonian Republican-Democrats, more popular with the less privileged segments of the young nation and opposed to a strong central government. The United States was itself a young nation at this point in history. Its Constitution, (ratified in 1788), and Bill of Rights (certified in 1791) had been in place for less than thirty years.

The 1816 Act expanded the administrative structure of the college to include a board of twenty-five overseers that was given the power to confirm or veto the decisions of the trustees including the appointment

99. Richardson, L. B. 1932. *History of Dartmouth College*. Hanover, New Hampshire: Dartmouth College Publications. Volume 1. pp. 287-288.

100. Herbst, J. 1982. *From Crisis to Crisis, American College Government 1636-1819*. Cambridge, Massachusetts: Harvard University Press. Chapter 17, “Dartmouth College: The Supreme Court Speaks,” pp. 232-243.

101. State of New Hampshire. 1816. *Laws of the State of New Hampshire, June session, 1816*. Chapter XXXV, “An Act to Amend the Charter and Enlarge and Improve the Corporation of Dartmouth College” [Passed by the New Hampshire legislature, 27th of June 1816]. pp. 48-51. Charles Norris, Printer. Exeter, New Hampshire: Available from Early American Imprints, Series II: Shaw-Shoemaker Readex Digital Collections. no. 38394 (filmed), and no. 41581 (filmed).

or removal of the college president, professors, and officers of the college. New Hampshire's governor, lieutenant governor, president of the senate, and speaker of the house were members of this board *ex officio*. Additional members and all future vacancies were to be appointed by the governor.

Additionally, the legislation increased the number of trustees from twelve to twenty-one, and required the president to deliver an annual report to the governor on the proceedings of the college's dual governance boards, its finances, and enrollment statistics.

While the Act of 1816 placed the institution under public control, it did not include a provision to transform Dartmouth into a secular institution. It did, however, restate language in Dartmouth's original charter intended to protect individual students and officers of the college from religious discrimination: the Act required colleges of theology established at Dartmouth to be founded on principles of religious freedom, required "perfect freedom of religious opinions" for all members of the university community, and included the provision that "any man or body of men shall have a right to endow colleges or professorships of any sect of the protestant Christian religion: And the trustees shall be held and obliged to appoint professors of learning and piety of such sects, according to the will of the donors."¹⁰²

New Hampshire Governor William Plumer (1759 – 1850) appointed John Wheelock as president of the newly created Dartmouth University. William Woodward, Wheelock's nephew and college treasurer, had possession of the college records, seal, and charter. He followed Wheelock to the newly created Dartmouth University.

Plumer, a friend of Thomas Jefferson, favored practical courses in commerce, agriculture, and mechanical arts over classical curricula. He thought the self-perpetuating board of trustees at Dartmouth College was "hostile to the spirit and genius of a free government."¹⁰³ About a month after the legislature approved the Act to amend Dartmouth's charter, Jefferson wrote to Governor Plumer to express support for the

102. Ibid. Quote from Act appears on page 51. For a discussion of the Act of 1816 from the perspective of Dartmouth College, see Chapter VII, "Storm and Stress" in Richardson (1932), Vol. 1., esp. pp. 318-319.

103. Herbst, J. 1982. *From Crisis to Crisis, American College Government 1636-1819*. Cambridge, Massachusetts: Harvard University Press. pp. 235-236.

charter amendment:

“The idea that institutions established for the use of the nation cannot be touched nor modified, even to make them answer their end, because of rights gratuitously supposed in those employed to manage them in trust for the public, may perhaps be a salutary provision against the abuses of a monarch, but it is absurd against the nation itself. Yet our lawyers and priests generally inculcate this doctrine, and suppose that preceding generations held the earth more freely than we do; had a right to impose laws on us, unalterable by ourselves, and that we, in like manner, can make laws and impose burdens on future generations, which they will have no right to alter; in fine, that the earth belongs to the dead and not to the living.”
—Thomas Jefferson to William Plumer, 1816¹⁰⁴

In session on August 28, 1816, the Trustees of Dartmouth University proposed an intellectual structure for the new university. It included professorships in mathematics and natural philosophy; metaphysics and ethics; rhetoric oratory and the Belles Lettres; and Latin and Greek literature. In addition, they hoped to include professorships in English, modern literature, and civil history, and establish colleges of theology, medicine, and law, as soon as funds became available.¹⁰⁵

On February 8, 1817, the Trustees of Dartmouth College sued Woodward. They asked for the return of their property: the college buildings, records, charter, and official seal.¹⁰⁶ The conflict eventually made its

104. Quoted in *ibid.* p. 236. Herbst cites Andrew A. Lipscomb, ed., *The Writings of Thomas Jefferson*, Monticello edition (Washington, D.C., 1904), XV, 46-47. See also: The Library of Congress: The Thomas Jefferson Papers Series 1. General Correspondence. 1651-1827. Thomas Jefferson to William Plumer, July 21, 1816. <http://memory.loc.gov/master/mss/mtj/mtj1/049/0200/0298.jpg> (accessed January 16, 2008). Tewksbury (1965, 1932) states that [p. 151] “there is abundant evidence, moreover, that Thomas [p. 152] Jefferson and other leaders in the American life of that day were fundamentally opposed to the principles upon which the Dartmouth College decision was based, and advocated an adjustment of the issue that would provide not only for private but also for public rights, premised on the view that colleges were public and well as private institutions.” Footnote 53, p. 152: “For Jefferson’s opinion on the right of legislatures to control chartered institutions see Bell, Sadie, *The church, the state, and education in Virginia*, Philadelphia, 1930, pp. 179, 297.”

105. Lord, J. K. 1913. *A History of Dartmouth College 1815-1909. Being the second volume of A History of Dartmouth College and the Town of Hanover, New Hampshire, begun by Frederick Chase*. Concord, New Hampshire: The Rumford Press. pp. 97-98.

106. See: Blackstone, W., Sir., 1765-1769. *Commentaries on the Laws of England*: Oxford : Printed at the Clarendon Press, 1765-1769. Digital version published by The Avalon Project: Documents in Law, History, and Diplomacy. http://avalon.law.yale.edu/subject_menus/blackstone.asp. Lillian Goldman Law Library, Yale Law School, New Haven, Connecticut. *Book the First, Chapter the Eighteenth, Of Corporations*, p.463: “For a corporation, being an

way to the Supreme Court of the United States. In the Court's February 2, 1819 decision, Supreme Court Chief Justice Marshall held that a charter is protected under the Contract Clause of the United States Constitution.¹⁰⁷ The decision, which prevented states from interfering with corporate charters, made it clear that states may not unilaterally alter a charter after it has been granted.¹⁰⁸ Justice Story, who wrote a concurring opinion, said that the states could retain some of their regulatory authority by reserving, within the explicit terms of a charter, the power to amend or abolish it. Without this option to have some control over corporations and the flexibility to respond to societal changes, the states might have ceased to issue charters.¹⁰⁹

The Supreme Court's 1819 decision required the state of New Hampshire to return Dartmouth's original charter, seal, records, and build-

invisible body, cannot manifest its intentions by any personal act or oral discourse: it therefore acts and speaks only by its common seal. For, though the particular members may express their private consents to any act, by words, or signing their names, yet this does not bind the corporation: it is the fixing of the seal, and that only, which unites the several assents of the individuals, who compose the community, and makes one joint assent of the whole."

107. United States Constitution, Article I, Section 10: "No state shall ... pass any bill ... or law impairing the obligation of contracts ..."

108. 1819. *The Trustees of Dartmouth College v. Woodward*. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. Lexis 330; 4 Wheat. 518: Supreme Court of the United States. See: Presser, S. B. 2002. "Corporations: Nonprofit Corporations" in Hall K. L., ed. *The Oxford Companion to American Law*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 9 April 2007, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t122.e0193-s002>.

In the Supreme Court's decision on *Charles River Bridge v. Warren Bridge* (1837), Chief Justice Roger B. Taney said that when states grant a charter, they could reserve the right to amend it. See: Wiecek, W. M. 2005. "Corporations" in Hall K. L., ed. *The Oxford Companion to the Supreme Court of the United States*. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 14 January 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t184.e0278>. — See: Levy, L. W. 2000. "Dartmouth College v. Woodward, 4 Wheaton 518 (1819)." Pages 744-746 in Levy L. W., Karst K. L., eds. *Encyclopedia of the American Constitution*, Second Edition vol. 2. Detroit: Macmillan Reference, USA.

Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). p. 149.

109. Finkelman, P., Urofsky, M. I. 2003. "Dartmouth College v. Woodward." *Landmark Decisions of the United States Supreme Court*, CQ Electronic Library, CQ Supreme Court Collection, <http://library.cqpress.com/scc/Indmrk03-113-6430-338521> (last visited January 14, 2008). Document ID: Indmrk03-113-6430-338521.

ings to the Trustees. In 2003, the New Hampshire legislature approved an Act to amend Dartmouth's charter. Dartmouth College now may amend its charter without seeking permission from the legislature with the provision that the governor remains on the Board of Trustees as an *ex officio* member.¹¹⁰ From 1769 until 2003 (234 years), Dartmouth's Board of Trustees relied on the authority of the New Hampshire legislature to amend its charter. With the 2003 legislative Act, the state granted Dartmouth increased autonomy, yet preserved the state's role in Dartmouth's administrative functions.¹¹¹ The legislature's 2003 Act clarifies the link between the College and the state, underscoring Dartmouth's historic semi-private administrative structure.¹¹² The require-

110. 2003. *An Act relative to amending the charter of Dartmouth college*. State of New Hampshire. New Hampshire General Court. 2003 Session, Senate Bill 133. <http://www.gencourt.state.nh.us/legislation/2003/sb0133.html>. This bill permits Dartmouth College to amend its charter in the same manner as amendments are made to the articles of agreement of a corporation." Chapter 161:1, "Dartmouth College; Authority to Amend Charter. Notwithstanding any provision of law to the contrary, Dartmouth College shall be permitted to amend its charter in accordance with the provisions of RSA 292:7, provided that the governor shall continue to serve as an ex officio member of the board of trustees. Effective date: August 16, 2003." See also: 1992. New Hampshire Code of Administrative Rules. Title XXVII. Corporations, Associations, And Proprietors Of Common Lands. Chapter 292. Voluntary Corporations And Associations. Powers of Corporations. Section 292:7 Change of Name; Amending Articles: General Court, State of New Hampshire. <http://gencourt.state.nh.us/rsa/html/XXVII/292/292-7.htm> (Accessed: April 10, 2007). "Any corporation now or hereafter organized or registered in accordance with the provisions of this chapter, and any existing corporation which may have been so organized or registered, may change its name, increase or decrease its capital stock or membership certificates, merge with or acquire any other corporation formed pursuant to this chapter, or amend its articles of agreement, by a majority vote of such corporation's board of directors or trustees, at a meeting duly called for that purpose, and by recording a certified copy of such vote in the office of the secretary of state and in the office of the clerk of the town or city in this state which is its principal place of business."

111. State of New Hampshire, Senate Bill 133, 2003 Session, "An Act relative to amending the charter of Dartmouth College." See also Dartmouth College. 2003. Press Release: "Dartmouth Trustees vote to expand size of board": Dartmouth College Office of Public Affairs. <http://www.dartmouth.edu/~news/releases/2003/11/17b.html> (Accessed: April 6, 2007).

112. See: *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement*, by Donald George Tewksbury, Copyright 1932 by Teacher's College, Columbia University, reprinted in an unabridged edition by Archon Books in 1965. This book is Tewksbury's Ph.D. Dissertation (Columbia University). p. 141: "In summarizing the relations of the colonial governments in eight colonies to the nine colonial colleges, it may be said that in no case did the colonial governments maintain a relationship with the colleges that was truly analogous to that maintained by the state governments with state universities established at a later date. In every case the colonial governments refused to assume primary responsibility for the control and support of the institutions established in their midst. The

ment that the governor has an *ex officio* seat on the Board was the exchange provided for greater independence for the Board to amend its charter. The state retained its historic relation to the college, and the college gained a measure of independence from the legislature. This Act makes it clear that the Supreme Court's 1819 decision (*Trustees of Dartmouth College v. Woodward*), which affirmed the protection of a charter under the Constitution's Contract Clause, ultimately did not separate the college from the state of New Hampshire.

In his summary of the effects of the Dartmouth decision on institutions of higher education, Donald G. Tewksbury says that it protected private religious colleges from state interference and opened the door for "the founding of a multiplicity of private and denominational colleges, as well as for the establishment of state universities in the United States"; however, he also states that the decision contributed to sectarian competition in higher education and impeded the establishment and development of public universities for about fifty years.¹¹³

A crucial consequence of the conflict between the New Hampshire legislature and Dartmouth College is that the experimental and short-lived Dartmouth University, an extension of civil government, provided the nation with an unexpected template for future public universities. When the act that created Dartmouth University was passed by the New Hampshire legislature on June 27, 1816, the University of Virginia was still in its planning stages.¹¹⁴ On January 25, 1819, nearly three years later, and a week prior to the Supreme Court's decision on Dartmouth, the General Assembly of Virginia passed *An Act Establishing the Univer-*

control of these institutions was turned over to self-perpetuating boards of trustees with or without state representation, and their support was left largely to private philanthropy." On page 158, Tewksbury refers to Harvard and Yale as 'semi-state institutions', and on page 166 he mentions 'semi-private institutions'.

113. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). See pp. 65, 151.

114. State of New Hampshire. 1816. *Laws of the State of New Hampshire, June session, 1816*. Chapter XXXV, "An Act to Amend the Charter and Enlarge and Improve the Corporation of Dartmouth College" [Passed by the New Hampshire legislature, 27th of June 1816]. pp. 48-51. Charles Norris, Printer. Exeter, New Hampshire: Available from Early American Imprints, Series II: Shaw-Shoemaker Readex Digital Collections. no. 38394 (filmed), and no. 41581 (filmed).

sity.¹¹⁵ The University of Virginia, the first secular university established in the United States, is a branch of the civil government of the Commonwealth of Virginia and subject to the control of the state's legislature.

Privately- and publicly-controlled institutions of higher education have something in common: neither is immune to the state's authority to step in when institutional behavior does not conform to the terms of their civil government-granted charters.¹¹⁶ As an example of a private institution's relation to the administrative authority of the state, John R. Thelin, Professor of Educational Policy at the University of Kentucky, points to a case involving Adelphi University and the University of the State of New York (USNY). The USNY, created by statute in 1784 and governed by a corporation of regents, is not an educational institution, but an administrative branch of the State of New York that oversees all private and public elementary, secondary, and postsecondary educational institutions. In addition, USNY includes all libraries, museums, historical societies, and other educational institutions in the state that have been incorporated by the Regents or the New York State Legislature.¹¹⁷ In 1997, Adelphi University, a private, not-for-profit corporation chartered in 1869 by the Regents of the USNY, was reviewed by the Regents and the state's Attorney General. The Regents found that Adelphi's trustees had failed to meet their responsibilities. The Regents voted to remove eighteen of the institution's nineteen trustees (most of whom had been appointed by the university's president) on charges of misconduct and abuse of power, and replaced them with eighteen state-appointed trustees. The newly appointed trustees then

115. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell* [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

116. Thelin, J. R. 2004. *A History of American Higher Education*. Baltimore: The Johns Hopkins University Press. pp. 72-73.

117. Folts, J. D. 1996. *History of the University of the State of New York and the State Education Department, 1784 - 1996*: New York State Education Department. <http://www.nysl.nysed.gov/edocs/education/sedhist.htm> (Accessed: October 13, 2008). Note: the University of the State of New York (USNY) and the State University of New York (SUNY), are different entities.

removed the university's president.¹¹⁸

In 2005, American University in Washington, D.C., chartered by the Congress of the United States in 1892 and governed by the United Methodist Church, was investigated by the Committee on Finance of the United States Senate for violations of the Internal Revenue Code.¹¹⁹

These two examples illustrate the relation of the administrative structure of privately-controlled institutions of higher education to the federal and state governments. These institutions are protected from the intrusion of the federal or state government in their day-to-day governance by the Constitution's Contract Clause, but they are not immune to federal and state law. The internal administrative structure of a private university is connected to the civil government of the state in which it resides, and to the federal government, through the same laws that govern publicly-controlled institutions.

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CHAPTER 4

The University of Virginia

“The Ministry is God’s instrumentality for the conversion of the world. Colleges and Seminaries are God’s means for training up a learned and efficient Ministry.”
—Sixth Report of the Society for the Promotion of Collegiate and Theological Education at the West, 1849 ¹

“The education of the people detached from the ministry of the church. Religion, a *noun of multitude*, or nomen collectivum, expressing the aggregate of all the different groups of notions and ceremonies connected with the invisible and supernatural. On the plausible (and in *this* sense of the word, unanswerable) pretext of the multitude and variety of *Religions*, and for the suppression of bigotry and negative persecution, National Education to be finally sundered from all religion, but speedily and decisively emancipated from the superintendence of the National Clergy. Education reformed.”
—Samuel Taylor Coleridge, 1830 ²

THE ANTEBELLUM DENOMINATIONAL COLLEGES

A discussion of the antebellum denominational colleges provides the context into which the University of Virginia, a bold experiment in non-ecumenical higher education, was established. In the approximately eighty-five years between the American Revolution and

1. Quoted in Donald G. Tewksbury (1894-1958), *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement* (Copyright 1932 by Teachers College, Columbia University, reprinted 1965, by Archon Books). Quote appears on p. 81. Tewksbury’s footnote number 86, p. 81 states: “Quoted in Sixth Report of the S.P.C.T.E.W., 1849, p. 17.” The SPCTEW, the “Society for the Promotion of Collegiate and Theological Education at the West”, was organized in New York City on June 30, 1843. Tewksbury states that this was the largest and most influential of the educational societies established in the early nineteenth century to promote the cooperation between eastern and western interests in higher education between the years of 1844 and 1869 (Tewksbury, p. 10-11).

2. Coleridge, S. T. 1830. *On the Constitution of the Church and State, according to the Idea of each: With Aids Toward a Right Judgment on the late Catholic Bill*. London: Hurst, Chance, and Co. Page. 64 (emphasis in original).

the Civil War, during the westward expansion, hundreds of small colleges were established in the United States. Nearly all of these antebellum colleges, except for a few public institutions, were founded, controlled, and supported by Christian denominations. Presbyterians nearly monopolized higher education in many states and were also deeply influential in local and state politics; but, after the separation of church and state was accepted, religious freedom cleared the way for other Christian denominations to participate in higher education.³ The Dartmouth decision and the Establishment Clause of the First Amendment to the United States Constitution provided these colleges with legal protection from government interference. The Dartmouth decision prohibited states from interfering with college charters, and the First Amendment prohibited the federal government from interfering with religious establishments.

Scholars disagree about the exact number of colleges and universities chartered and founded during this period, their failure rate, and the number of permanently established institutions.⁴ There is an abun-

3. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). p. 63-64.

4. For a detailed history of the founding of these colleges, see Donald G. Tewksbury's book, *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement* (Copyright 1932 by Teachers College, Columbia University, reprinted 1965, by Archon Books). Tewksbury estimated that 516 colleges were founded before the war, but Colin Burke identified only 249. According to Walter P. Metzger, each of these scholars used a different quantitative method; Tewksbury counted charters granted and Burke counted only those institutions that were actually established and put into operation after the charter was issued. Donald G. Tewksbury, *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement* (Copyright 1932 by Teachers College, Columbia University, reprinted 1965, by Archon Books). Burke, C. B. 1982. *American Collegiate Populations: a test of the traditional view*. New York: New York University Press. See also reviews of Burke's book by Herbst, J. 1983. "Review: American Collegiate Populations: A Test of the Traditional View, by Colin B. Burke" (1982). *Higher Education* 12: 483-485.; Metzger, W. P. 1984. "Review: American Collegiate Populations: A Test of the Traditional View, by Colin B. Burke (1982)". *The Journal of Higher Education* 55: 419-422. Colin B. Burke is Associate Professor Emeritus of History at University of Maryland, Baltimore County (UMBC). See also: Colin B. Burke (1973), *The Quiet Influence: The American Colleges and Their Students, 1800-1960*. Unpublished Ph.D. dissertation, Washington University. See also: Blackburn, R. T., Conrad, C. F. 1986. "The New Revisionists and the History of U.S. Higher Education". *Higher Education* 15: 211-230. See also: Axtell, J. 1971. "The Death of the Liberal Arts College". *History of Education Quarterly* 11: 339-352. A more recent critique of the antebellum college and its relation to

dance of material on the intellectual structure of these colleges, and the extent to which these institutions served society's needs.⁵ The intellectual structure of these colleges was roughly the same classical course of studies that was offered at Dartmouth College, and became the core topic of discussion in the watershed Yale Report of 1828. In a review of a book on nineteenth-century colleges, Walter P. Metzger, Professor of History at Columbia University, lists a collection of problems that historians have seen in the antebellum college: "... its teaching had been uninspired and uninspiring ... its curriculum had been hostile to science ... its extracurriculum had been puerile and impoverished ... its birthrate had been incontinent and its deathrate as a consequence extremely high," and that they were "poorly planned and improvidently supported ... town colleges established by local boosters." These colleges were established primarily to support the goals of their supporting Christian denominations, while also providing a liberal education to their ministers and the residents of isolated frontier communities that belonged to their denomination.⁶ Hofstadter and Metzger refer to this period in American higher education as "the great retrogression."⁷ Revisionist historians writing in the late twentieth and early

the Yale Report of 1828: Pak, M. S. 2008. "The Yale Report of 1828: A New Reading and New Implications". *History of Education Quarterly* 48: 30-57. Stanley Guralnick provides a detailed view of the role of science in the curriculum of the early nineteenth-century college. See chapter II, "The Revolution of the 1820s" in Guralnick, S. M. 1975. "Science and the Ante-bellum American College." *Memoirs of the American Philosophical Society*, Volume 109. Philadelphia: The American Philosophical Society.

5. See Part One, Chapter V, "The Old-Time College," in Hofstadter, R., Metzger, W. P. 1955. *The Development of Academic Freedom in the United States*. New York: Columbia University Press. This book is the first part of a study prepared for the American Academic Freedom Project at Columbia University. Hofstadter and Metzger are professors in the History Department of Columbia University.

6. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). See chapter 1, page 4: "... a multitude of rival colleges representing various competing religious interests were established during the so-called "denominational era" of our history. America proved indeed to be a virgin land for the multiplication of religious sects and for the development of colleges designed as agents for the advancement of the interests of these religious groups." Tewksbury cites Peter George Mode, *The Frontier Spirit in American Christianity*, Chapter 4, 1932. [Compare citation to UC Melvyl record: Macmillan, New York, 1923]

7. Hofstadter, R., Metzger, W. P. 1955. *The Development of Academic Freedom in the*

twenty-first century play down the constraints that religion placed on the advancement of knowledge and assert that these colleges provided an education at an affordable price that was appropriate to the time and the occupational needs of their regional populations.⁸

“If its object were scientific and philosophical discovery, I do not see why a University should have students; if religious training, I do not see how it can be the seat of literature and science. But, practically speaking, it cannot fulfil its object duly...without the Church’s assistance; or, to use the theological term, the Church is necessary for its *integrity*: Not that its main characters are changed by this incorporation: it still has the office of intellectual education; but the Church steadies it in the performance of that office.”
—John Henry Newman, 1873⁹

In his analysis of existing studies of the antebellum colleges, Michael S. Pak, Assistant Professor in the Critical Studies Department of the Massachusetts College of Art and Design, says that no official agency collected data on the antebellum colleges; therefore, the exact number of these colleges, and the number of students that attended them, is unknown. Nevertheless, a greater number of colleges were established in this era than there were students to attend them, and this contributed to competition among these institutions. He also points out that American higher education in the nineteenth century was unregulated and decentralized. There was no agency to ensure the quality of higher education or to control the numbers of institutions established, nor was there self-organization, such as associations of colleges. Charters were granted to anyone who wanted to start

United States. New York: Columbia University Press. pp. 214, 294.

8. Metzger, W. P. 1984. Review: *American Collegiate Populations: A Test of the Traditional View*, by Colin B. Burke (1982). *The Journal of Higher Education* 55: 419-422. Veysey, L. 1982. “The History of Education”. *Reviews in American History*. Issue title: *The Promise of American History: Progress and Prospects* 10: 281-291. In his comments about the goals of revisionist history, Laurence Veysey says that (p. 289) “the trend in recent scholarship has been to try to make the colleges of the early nineteenth century seem more intellectually respectable and more socially useful than was formerly thought. The argument downplays the stifling quality of evangelical religion and overplays the importance of the social mobility of villagers in an age of rapid urbanization and immigration.”

9. Newman, J. H. 1873. *The idea of a university defined and illustrated : I. in nine discourses addressed to the Catholics of Dublin ; II. in occasional lectures and essays addressed to the members of the Catholic University* [Revised edition of: *Discourses on the scope and nature of university education*, 1852; and, *Lectures and essays on university subjects*, 1859]. London: B. M. Pickering.

a college or university.¹⁰ In his book, *Banding Together: The Rise of National Associations in American Higher Education, 1887-1950*, Hugh Hawkins, Professor Emeritus of History and American Studies at Amherst College, says that colleges and universities began to organize institutional associations between the years 1880 to 1920.¹¹ The Association of Public and Land-grant Universities (APLU) was originally organized in 1887 as the Association of American Agricultural Colleges and Experiment Stations (The APLU was formerly known as the National Association of State Universities and Land-Grant Colleges, or NASULGC.).¹² The American Association of State Colleges and

10. Pak, M. S. 2008. "The Yale Report of 1828: A New Reading and New Implications". *History of Education Quarterly* 48: 30-57.

11. Hawkins, H. 1992. *Banding Together: The Rise of National Associations in American Higher Education, 1887-1950*. Baltimore, Maryland: The Johns Hopkins University Press. p. 2. The Northwest Commission on Colleges and Universities (NWCCU), one of six regional postsecondary accreditation organizations, was originally founded in 1917. See: www.nwccu.org.

12. Association of Public and Land-grant Universities. 2009. *Introducing the Association of Public and Land-grant Universities (APLU)*. Washington, D.C.: <http://www.aplu.org/NetCommunity/Page.aspx?pid=183> (Accessed: June 3, 2009). See also: <http://www.aplu.org/NetCommunity/Page.aspx?pid=1199> (Accessed: April 6, 2010). Effective March 30, 2009, NASULGC is now the APLU. See also: Hawkins, H. 1992. *Banding Together: The Rise of National Associations in American Higher Education, 1887-1950*. Baltimore, Maryland: The Johns Hopkins University Press. p. xvii. The Association of American Agricultural Colleges and Experiment Stations (AAACES) was founded in 1887 by the presidents of land-grant universities. In 1919, its name changed to the Association of Land-Grant Colleges (ALGC). In 1926 its name changed again to Association of Land-Grant Colleges and Universities (ALGCU). In 1963 it merged with the National Association of State Universities (NASU) and the State Universities Association (SUA). NASU was founded in 1895 by presidents of state universities that did not receive benefits from the Morrill Act. The Association of Separated State Universities, founded in the 1920s by state universities without land-grant status, changed its name in 1930 to the SUA. In 1963 the NASU and the SUA merged with the ALGCU to form the National Association of State Universities and Land-Grant Colleges—NASULGC. NASULGC is the oldest national association of institutions of higher education. Effective March 30, 2009, NASULGC became the Association of Public and Land-grant Universities (APLU). Association of Public and Land-grant Universities. 2009. *Introducing the Association of Public and Land-grant Universities (APLU)*. Washington, D.C.: <http://www.aplu.org/NetCommunity/Page.aspx?pid=183> (Accessed: June 3, 2009) See also: <http://www.aplu.org/NetCommunity/Page.aspx?pid=1199> (Accessed: April 6, 2010). See also: Cook, C. E. 1998. *Lobbying for Higher Education: how colleges and universities influence federal policy*. Nashville, Tennessee: Vanderbilt University Press. pp. 20-21, and Hawkins, H. 1992. *Banding Together: The Rise of National Associations in American Higher Education, 1887-1950*. Baltimore, Maryland: The Johns Hopkins University Press. pp. xv-xvii, 196-201.

Universities (AASCU) has a history that dates back to 1918.¹³

The Dartmouth decision contributed to this absence of regulation because the charters held by these colleges were protected under the Contract Clause of the United States Constitution from interference by the states that issued them.¹⁴ Fredrick A. P. Barnard, President and Chancellor of the University of Mississippi from 1856-1861 and President of Columbia College (now Columbia University) from 1864-1889, was particularly critical of the U.S. college system, attacking their divisiveness and rate of proliferation:

“Nearly all our colleges are, furthermore, the creations of the different religious denominations which divide our people. They are regarded as important instrumentalities, through which the peculiarities of doctrine which distinguish their founders are to be maintained, propagated, or defended. It is this which has led to the great multiplication of collegiate institutions in our country, and which is daily adding to their number.”
—F.A.P. Barnard, 1856¹⁵

Constitutional protections enjoyed by nineteenth-century private denominational colleges also provided support for the establishment of public universities. The Constitution’s Contract Clause (Article 1, Section 10) forbids the states from impairing the obligation of contracts, which provides protection to privately-controlled religious universities from state interference. The Establishment Clause of the Constitution’s First Amendment says that federal or state governments cannot

13. Hager, W. E. 1970. *AASCU: The First Ten Years. A Brief History of the First Decade of the American Association of State Colleges and Universities*. Washington, D.C.: American Association of State Colleges and Universities, Office of Information and Research. Document available from Educational Resources Information Center (ERIC) <http://www.eric.ed.gov/>. Accessed: May 2009.

14. Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). In Chapter 1, pp. 64-66, Tewksbury discusses the relation between the Dartmouth decision and the founding of private and public institutions of higher education in the United States: (p. 65) “... it became possible for the public will to be expressed in at least one of two ways ... either through the establishment of state institutions subject to the will of the people acting as a whole, or through the founding of private colleges subject to the will of various minority groups and generally free from public control.”

15. F.A.P. Barnard, President of the University of Mississippi, and later of Columbia University is quoted in *ibid.* pp. 4-5. Barnard, F. A. P. 1856. “On Improvements Practicable in American Colleges”. *American Journal of Education* 1. p. 176.

set up a church, which means that a university that is established and governed by a state cannot be a religious institution, thereby protecting secular institutions from interference by religious interests.

Protection of religious freedom in the U.S. shares its origins with those of the University of Virginia. Both were conceived by Thomas Jefferson. Prior to the Virginia General Assembly's adoption of the *Virginia Statute for Religious Freedom* in 1786, people were taxed to support churches and ministers and often punished for not attending worship services, or for expressing opinions that were considered heretical.¹⁶ The Virginia statute, drafted by Thomas Jefferson, states:

*"Be it enacted by the General Assembly, That no man shall be compelled to frequent or support any religious worship, place, or ministry whatsoever, nor shall be enforced, restrained, molested, or burthened in his body or goods, nor shall otherwise suffer on account of his religious opinions or belief; but that all men shall be free to profess, and by argument to maintain, their opinion in matters of religion, and that the same shall in no wise diminish, enlarge, or affect their civil capacities."*¹⁷

To place this Act in a chronological context, the United States Constitution was adopted in 1788. Jefferson was in France in 1787, serving as United States minister, when the Federal Constitution was written. In his letter to James Madison, dated December 20, 1787, Jefferson objected to the absence of a Bill of Rights in the Constitution.

"I do not like... the omission of a bill of rights providing clearly and without the aid of sophisms for freedom of religion, freedom of the press, protection against standing armies, restriction against monopolies, the eternal and unremitting force of the habeas corpus laws, and trials by jury in all matters of fact triable by the laws of the land and not by the law of nations."
—Thomas Jefferson to James Madison, 1787.¹⁸

16. U.S. Supreme Court, *Reynolds v. United States*, 98 U.S. 145 (1878).

17. "The Statute of Virginia for Religious Freedom," drafted by Thomas Jefferson in 1777 and adopted by the Virginia General Assembly in 1786. Reproduced on pages xvii-xviii in Peterson, M. D., Vaughan, R. C., eds. 1988. *The Virginia Statute for Religious Freedom: Its Evolution and Consequences in American History* Cambridge and New York: Cambridge University Press. Merrill D. Peterson is Professor Emeritus of History at the University of Virginia and Robert C. Vaughan is President of the Virginia Foundation for the Humanities and Public Policy. The statute is part of Virginia's Constitution: Article I – Bill of Rights, Section 16. Free exercise of religion; no establishment of religion. <http://legis.state.va.us/constitution/a1s16.htm>. Accessed February 11, 2008.

18. Library of Congress. 2001. *Establishing a Federal Republic*. Washington, D.C.: <http://www.loc.gov/exhibits/jefferson/jeffed.html> (Accessed: June 3, 2009). The letter

The principles expressed in the *Virginia Statute for Religious Freedom* informed the Establishment Clause of the First Amendment (ratified in 1791) to the U. S. Constitution: “Congress shall make no law respecting an establishment of religion.” In *Everson v. Board of Education*, the U.S. Supreme Court stated that:

“The ‘establishment of religion’ clause of the First Amendment means at least this: neither a state nor the Federal Government can set up a church. Neither can pass laws which aid one religion, aid all religions, or prefer one religion over another. Neither can force nor influence a person to go to or to remain away from church against his will or force him to profess a belief or disbelief in any religion. No person can be punished for entertaining or professing religious beliefs or disbeliefs, for church attendance or non-attendance. No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever form they may adopt to teach or practice religion. Neither a state nor the Federal Government can, openly or secretly, participate in the affairs of any religious organizations or groups, and vice versa. In the words of Jefferson, the clause against establishment of religion by law was intended to erect ‘a wall of separation between church and State’.”¹⁹

Thomas Jefferson’s sustained work to establish a public university where faculty and students could “follow truth wherever it may lead”²⁰ was in great part a response to the dominance of higher education by Christian denominations. In contrast to Jefferson’s goal for the University of Virginia, the typical stated mission of the colonial colleges founded in North America, and later of the denominational colleges, was to provide educated ministers to the Christian church. In 1754, fifteen years prior to the founding of Dartmouth College, Thomas Clap, President of Yale College, wrote this definition of a college:

“Colleges, are Religious Societies, of a Superior Nature to all others. For

is reproduced in Lipscomb, A. A., Bergh, A. E., eds. 1903-04. *The Writings of Thomas Jefferson* (Memorial Edition). Washington, D.C.: The Thomas Jefferson Memorial Association of the United States. Volume 6, p. 387.

19. 1947. *Everson v. Board of Education of the Township of Ewing*. 330 U.S. 1 (1947); U.S. Supreme Court. <http://supreme.justia.com/us/330/1/case.html>.

20. “We are not afraid to follow truth wherever it may lead, nor to tolerate any error so long as reason is left free to combat it.” —Thomas Jefferson to William Roscoe, 1820. Lipscomb, A. A., Bergh, A. E., eds. 1903-04. *The Writings of Thomas Jefferson* (Memorial Edition). Washington, D.C.: The Thomas Jefferson Memorial Association of the United States. Volume 15, p. 303.

whereas Parishes, are Societies, for training up the Common People; Colleges, are Societies of Ministers, for training up Persons for the Work of the Ministry ... Some indeed, have supposed, that, the only Design of Colleges, was to teach the Arts, and Sciences ... But, it is probable, that there is not a College, to be found upon Earth, upon such a Constitution.”²¹

Sixty-five years after Clap’s definition was published, the University of Virginia was established as an institution of higher education without a school of theology. In the twenty-first century, “the central purpose of the University of Virginia is to enrich the mind by stimulating and sustaining a spirit of free inquiry directed to understanding the nature of the universe and the role of mankind in it.”²²

THE UNIVERSITY OF VIRGINIA: INTRODUCTION AND BACKGROUND

At Dartmouth College, we saw a small step taken toward the establishment of religious freedom in higher education. Despite its eighteenth-century mission to spread Christianity and provide an educated ministry to the colonial churches, Dartmouth’s Board of Trustees was prohibited by the terms of the College’s Charter from excluding “any person of any religious denomination whatsoever, from free and equal liberty and advantage of education, or from any of the liberties and privileges or immunities of the said college, on account of his or their speculative sentiments in religion, and of his or their being of a religious profession

21. Thomas Clap, “The Religious Constitution of Colleges, Especially of Yale-College in New Haven” (T. Green, New London, CT., 1754), pp. 4 and 12. Quoted in Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. p. 344. R. Freeman Butts (1910-2010) was Professor Emeritus of Education, Teachers College, Columbia University. Primary source: Clap, T. 1754. *The religious constitution of colleges, especially of Yale-College in New-Haven in the colony of Connecticut. By Thomas Clap, A.M. president of Yale-College.:* New-London [Conn.] : Printed and sold by T. Green. Based on information from *English Short Title Catalogue*. Eighteenth Century Collections Online. Gale Group. <http://galenet.galegroup.com/servlet/ECCO>. Gale Document Number CW120248017. Source Library: British Library (Accessed January 17, 2008).

22. University of Virginia. 1985. University of Virginia: Statement of Purpose and Goals. (Adopted on March 19, 1985 by the Faculty Senate of the University of Virginia, with the concurrence of the President, to replace the statement that had been in effect since May 17, 1974.): <http://www.virginia.edu/statementofpurpose/purpose.html>. Accessed February 9, 2008.

different from the said trustees of the said Dartmouth College.”²³

In the nineteenth century, at about the same time that Georgia and North Carolina were chartering and establishing state universities, Virginia’s legislature was busy debating and eventually approved a statute that lent crucial support to the establishment of a secular public university, the University of Virginia. Both the Georgia and North Carolina experiments assumed deeply religious characters, but the University of Virginia experience would be decidedly secular. In 1786, the General Assembly of the Commonwealth of Virginia approved the passage of the *Virginia Statute for Religious Freedom*, drafted by Jefferson after he wrote the *Declaration of Independence*. Given the protections provided by this statute, it logically follows that individual students and faculty at institutions of higher education could not be compelled to worship or provide daily prayers against their will, pay tuition to support a campus ministry or courses in theology, or suffer punishments and other possible discriminations for not attending chapel.

The University of Virginia was the first to be established as a secular institution and to receive consistent funding from the state. It had no religious affiliation, no professor of theology, and its students were not required to attend chapel services. Consistent with the Establishment Clause of the First Amendment, and the principle of separation of church and state, this difference is important to the definition of a state, or public, university.²⁴ Independence from mandated religious influence is fundamental to the ideal of intellectual freedom. In the first issue of its *Bulletin* (1915), the American Association of University Professors published its “General Report of the Committee on Academic Freedom and Academic Tenure.” Comments in the report on the role of the governance board at a college established by a religious de-

23. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

24. Consider the judgment of the Court of Appeals of South Carolina, delivered by Chancellor Johnson in the case of *Harmon v. Dreher*, 1 Speers Eq. 87, 120 (SC App. 1843): “It belongs not to the civil power to enter into or review the proceedings of a spiritual court. The structure of our government has, for the preservation of civil liberty, rescued the temporal institutions from religious interference. On the other hand, it has secured religious liberty from the invasion of the civil authority.” Cited in U.S. Supreme Court, *Watson v. Jones*, 80 U.S. 679 (1871).

nomination describe the threat to academic freedom that arises from the administrative structure of a religious college:

“If a church or religious denomination establishes a college to be governed by a board of trustees, with the express understanding that the college will be used as an instrument of propaganda in the interests of the religious faith professed by the church or denomination creating it, the trustees have a right to demand that everything be subordinated to that end.”²⁵

During August of 1818, twenty-four Commissioners, chosen by Virginia’s Governor and Council, met in the Blue Ridge Mountains at Rockfish Gap.²⁶ Their assignment was to choose the site for the new university, select a plan for the construction of its buildings, determine the courses of study and number of professorships, and submit a report describing these to the legislature.²⁷ Thomas Jefferson, one of the appointed Commissioners, arrived at the meeting with a draft of this requested report: the other members of the Commission approved it unanimously.²⁸

On January 25, 1819, guided by the Commissioners’ Rockfish Gap Report,²⁹ the Virginia Legislature approved *An Act Establishing the*

25. American Association of University Professors. 1915. “General Report of the Committee on Academic Freedom and Academic Tenure” (1915 Declaration of Principles on Academic Freedom and Academic Tenure). *Bulletin of the American Association of University Professors*. Volume 1, Part 1 (December 31, 1915). p. 21.

26. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Volume 1, p. 211. The phrase, “An institution is the lengthened shadow of one man,” is found in Ralph Waldo Emerson’s “Self-Reliance,” published in 1841. See also: Honeywell, R. J. 1964. *The Educational Work of Thomas Jefferson*. New York: Russell & Russell, Inc. pp. 65-66. Roy J. Honeywell (1886-1969) was Assistant Professor of History and Government at Boston University when the 1931 edition of his book was published by Harvard University Press. He died in Maryland in 1969.

27. For greater detail on the Rockfish Gap Commission, see Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, New York, 1931, reissued 1964, Chapter VI. p. 71-72.

28. Cunningham, N. E., Jr. 1987. *In Pursuit of Reason: The Life of Thomas Jefferson*. Baton Rouge: Louisiana State University Press. p. 339-340.

29. The Rockfish Gap Report is also known as “Report of the Commissioners Appointed to Fix the Site of the University of Virginia, &c.” See Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, New York, 1964), Appendix J, pp. 248-260. (First Edition published by Harvard University Press, Cambridge, 1931)

University,³⁰ and the pre-existing Central College (originally conceived under the name Albemarle Academy) was transformed into the University of Virginia. Soon afterward, Thomas Jefferson, the “Father of the University of Virginia,”³¹ was elected Rector of the Board of Visitors of the University of Virginia.

The Physical Structure of the University of Virginia

“But how is a taste in this beautiful art to be formed in our countrymen, unless we avail ourselves of every occasion when public buildings are to be erected, of presenting to them models for their study and imitation? ... the comfort of laying out the public money for something honorable, the satisfaction of seeing an object and proof of national taste, and the regret and mortification of erecting a monument of our barbarism which will be loaded with execrations as long as it shall endure.”
—Thomas Jefferson to James Madison, September 20, 1785³²

Many years prior to the Virginia legislature’s *An Act Establishing the University*, Jefferson began drawing plans for the physical structure of a university, calling his design for university buildings an academic village. In 1810, he submitted site plans to the trustees of East Tennessee College that very closely resembled those he prepared for the future University of Virginia.³³

30. Jefferson, T. 1856. “An Act Establishing the University” (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell* [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

31. Jefferson wrote his own epitaph: “Here was buried Thomas Jefferson, Author of the Declaration of American Independence, Of the Statute of Virginia for Religious Freedom, And Father of the University of Virginia.” <http://www.monticello.org/gallery/grounds/obelisk.html>, accessed 07/10/07. The original marker for Jefferson’s grave at Monticello in Virginia was given to the University of Missouri in 1880s. Missouri was the first state university established in the Louisiana Purchase. See: <http://chancellor.missouri.edu/residence/index.php>, and <http://formizzou.missouri.edu/recognition/jeffersonclub.php> (Accessed 07/10/07).

32. Excerpt from a letter written by Thomas Jefferson to James Madison, September 20, 1785. Reproduced in Boyd, J. P., ed. 1950. *The Papers of Thomas Jefferson* Princeton, NJ: Princeton University Press. Vol. 8, p. 535.

33. See: Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. (Philip Alexander Bruce) Volume I, pp. 179-188. Jefferson’s description of his 1810 plans for East Tennessee College is found on p. 179: “a small and separate lodge for each professorship, with only a hall below for his class, and two chambers above for himself; these lodges to be joined

In 1817, Jefferson corresponded with architects Benjamin H. Latrobe and William Thornton, and sent them sketches of his plans for a university.³⁴ Latrobe, America's first professional architect, recommended a large central structure for the university, and sent Jefferson a sketch of a building with a dome.³⁵ William Thornton (1759-1828), known for his design for the Capitol building in Washington, D.C., eventually designed one of the University of Virginia's pavilions.³⁶

In addition to his correspondence with architects, Jefferson discussed his plans for education with Pierre-Samuel Du Pont de Nemours (1739-1817), a French political economist who arrived in the United States in 1799, settled in New York, and was a frequent visitor at Monticello.³⁷ Du

by barracks for a certain portion of the students, opening into a covered way to give a dry communication between all the parts, the whole of these arranged around an open square of grass and trees."

34. For more background on Jefferson's plans for the physical structure of the University of Virginia, see: Malone, D. 1981. *The Sage of Monticello* (Volume Six). Boston: Little, Brown, and Company. Chapter XVIII, "The Start of an Academical Village", pp. 257-261.

35. See: *ibid.* pp. 260-261. Cunningham, N. E., Jr. 1987. *In Pursuit of Reason: The Life of Thomas Jefferson*. Baton Rouge: Louisiana State University Press. p. 338.

36. William Thornton designed the U.S. Capitol in Washington D.C., and Pavilion VII, University of Virginia. In 1802, President Jefferson appointed Thornton Superintendent of the Patent Office. In 1803, prior to consulting with him about plans for the University of Virginia, Jefferson appointed Benjamin Latrobe to the position of Surveyor of Public Buildings. See: Curl, J. S. 2006d. "Jefferson, Thomas." *A Dictionary of Architecture and Landscape Architecture*, Oxford Reference Online. Oxford University Press. UC - Santa Cruz. 14 February 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e2451>

—. 2006c. "Thornton, William" *A Dictionary of Architecture and Landscape Architecture*, Oxford University Press 2006. Oxford Reference Online. Oxford University Press. UC - Santa Cruz. 11 June 2007 <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e4703>>. —. 2006a. "Latrobe, Benjamin Henry Boneval". *A Dictionary of Architecture and Landscape Architecture*, Oxford University Press 2006. Oxford Reference Online. Oxford University Press. UC - Santa Cruz. 11 June 2007, <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e2618>>. James Stevens Curl is Professor Emeritus of Architectural History and Senior Research Fellow, De Montfort University, Leicester, England. For additional information about Thornton and Latrobe, see *The Architect of the Capitol, the agency responsible to the United States Congress for the maintenance, operation, development, and preservation of the United States Capitol Complex*. <http://www.aoc.gov/aoc/index.cfm>. See also Paul Venable Turner, *Campus: An American Planning Tradition*, published by The MIT Press (New York, 1984) for The Architectural History Foundation, New York. Chapter II, "Schools for a New Nation", subsection "Jefferson and the University of Virginia," pp. 76-87. At date of publishing, Paul Turner was Associate Professor of Architectural History at Stanford University. In 2007, Turner was Paul L. and Phyllis Wattis Professor of Art, Emeritus, at Stanford University.

37. See: Hansen, A. O. 1926. *Liberalism and American Education in the Eighteenth*

Pont wrote a treatise on education that described a national university consisting of four distinct schools—medicine, mining, social science and legislation, and mathematics—all contained within one large building.³⁸

Jefferson had a different idea for organizing the intertwined physical and intellectual structures of a university. In 1805 he described this organization in a letter to Littleton Waller Tazewell:

“Large houses are always ugly, inconvenient, exposed to the accident of fire, and bad in case of infection. A plain small house for the school & lodging of each professor is best. These connected by covered ways out of which the rooms of the students should open. These may be built only as they shall be wanting. In fact a university should not be a house but a village.”
—Thomas Jefferson, 1805³⁹

Century. New York: Originally published in 1926 by The Macmillan Company. Reprinted in 1965 by Octagon Books, Inc. pp. 176-180. Lengthy footnote, pp. 176-177, includes condensed biography of Du Pont de Nemours. See also: Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Vol. 1, pp. 63-64. See also “Du Pont de Nemours, Pierre Samuel, 1739-1817,” in *Du Pont de Nemours*, P. S. 1923. *National education in the United States of America*, by *Du Pont de Nemours*; translated from the second French edition of 1812 and with an introduction, by B. G. du Pont. Newark, Delaware: University of Delaware Press. See also: Philip Alexander Bruce, 1920, *History of the University of Virginia 1819-1919*, Vol. 1, pp. 63-64, and *Encyclopædia Britannica*. 2007. “du Pont, Pierre-Samuel” *Encyclopædia Britannica Online*. 31 May 2007, <http://search.eb.com/eb/article-9031302>.

38. Philip Alexander Bruce (1856-1933), centennial historian of the University of Virginia, wrote that Du Pont’s plan was based on both the French system of education and aspects of Jefferson’s *Bill of 1779 for the Diffusion of Knowledge*, and that Jefferson had been introduced to French ideas about education during his travels before reading Du Pont’s book. Another historian asserts that Jefferson asked Du Pont to write a plan for national education in the United States. See A. O. Hansen, *Liberalism and American Education in the Eighteenth Century* (New York: Octagon Books, Inc., 1965. Originally published in 1926 by The Macmillan Company), p. 179. Hansen quotes the preface to the English translation of du Pont’s *National Education in the United States of America*, written by translator Bessie Gardner Du Pont, which emphasizes the collaboration between du Pont and Jefferson. For biographical information on Bruce, see “Dictionary of Virginia Biography,” (Library of Virginia, Richmond, VA, 2001), Volume 2, pp. 338-341. Bruce attended the University of Virginia (1874-75), and graduated from Harvard Law School (1878). He was the Virginia Historical Society’s corresponding secretary and librarian and later, as centennial historian of the University of Virginia, he wrote his five volume *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man* (The Macmillan Company, New York, 1920-1922).

39. Quote is from Grizzard, F. E., Jr. 1996. *Documentary History of the Construction of the Buildings at the University of Virginia, 1817–1828*. A Dissertation Presented to the Graduate Faculty of the University of Virginia in Candidacy for the Degree of Doctor of Philosophy: Corcoran Department of History, University of Virginia. August 1996. <http://etext.virginia.edu/jefferson/grizzard/>. Accessed: October 2, 2006. “Chapter 1, Genesis of the Academical Village, 1814–1817.” Grizzard’s Note 20: “TJ to Littleton Waller Tazewell,

Jefferson expressed his idea of a university village in greater detail in a letter to the Trustees for the Lottery of East Tennessee College:

“I consider the common plan followed in this country, but not in others, of making one large and expensive building, as unfortunately erroneous. It is infinitely better to erect a small and separate lodge for each separate professorship with only a hall below for his class, and two chambers above for himself; joining these lodges by barracks for a certain portion of the students, opening into a covered way to give a dry communication between all the schools. The whole of these arranged around an open square of grass and trees, would make it, what it should be in fact, an academical village, instead of a large and common den of noise, of filth and of fetid air. It would afford that quiet retirement so friendly to study, and lessen the dangers of fire, infection and tumult. Every professor would be the police officer of the students adjacent to his own lodge, which should include those of his own class of preference, and might be at the head of their table, as I suppose, it can be reconciled with the necessary economy to dine them in smaller and separate parties, rather than in a large and common mess. These separate buildings, too, might be erected successively and occasionally as the number of professorships and students should be increased, or the funds become competent.” —Thomas Jefferson, 1810 ⁴⁰

5 January 1805, ViU:TJ; see also Norma Lois Peterson, Littleton Waller Tazewell, 37-39. Littleton Waller Tazewell (1774-1860), who was born in Williamsburg, was prominent in public service for nearly four decades: Virginia House of Delegates, 1798-1801, 1804-1806, 1816-1817; United States House of Representatives, 1800-1801; United States Senate, 1824-1832; Virginia Constitutional Convention, 1829/1830; governor of Virginia, 1834-1836; died in Norfolk. Tazewell is buried at Elmwood Cemetery in Norfolk.” [ViU:TJ —Papers of Thomas Jefferson, University of Virginia, Charlottesville] <http://etext.virginia.edu/jefferson/grizzard/chap01.html>. Accessed January 27, 2008. A quote from this same letter, Thomas Jefferson to L. W. Tazewell, January 5, 1805, is found in *Campus: An American Planning Tradition*, by Paul Venable Turner (New York, MIT Press, 1984), p. 79. Turner’s source: Jefferson Papers at the University of Virginia.

40. Quote is from *Documentary History of the Construction of the Buildings at the University of Virginia, 1817–1828*. Frank Edgar Grizzard, Jr., August 1996. “Chapter 1, Genesis of the Academical Village, 1814–1817.” Note 21: TJ to Hugh White, c. 1810, DLC:TJ; see also Mulligan, Tim, *Virginia: A History and Guide*, p. 132-33, New York, 1986. [DLC:TJ — Papers of Thomas Jefferson, Library of Congress, Washington, D.C.] <http://etext.virginia.edu/jefferson/grizzard/chap01.html>. Accessed January 27, 2008. Note, Grizzard identifies H.L. White as being from Kentucky, but our research indicates that he was from Tennessee. This same letter is quoted in *Campus: An American Planning Tradition*, by Paul Venable Turner (New York, MIT Press, 1984), p. 79. Turner’s note states: “Letter of May 6, 1810, to Hugh L. White, et al., “Trustees of the Lottery of East Tennessee College”; published in Lipscomb, *Writings of Jefferson*, pp. 386-88.” Please note: *The Writings of Thomas Jefferson, Library Edition*, Lipscomb and Bergh, Eds. (Issued under the auspices of the Thomas Jefferson Memorial Association of the United States, Washington, D.C.) is a work of 20 volumes. The letter to Hugh L. White, dated 5/6/1810, is found in Volume XII (1903), on pp. 386-388. The 1810 letter is quoted also in *Thomas Jefferson, Landscape*

The origins of the physical structure of the University of Virginia are found in the histories of two other institutions, Albemarle Academy and Central College. Albemarle Academy, which preceded Central College and the University of Virginia, was chartered in 1803.⁴¹ In 1814, Jefferson presented an architectural plan for the proposed Albemarle Academy to that institution's Trustees. This plan was similar to one he had produced for East Tennessee College. It indicated separate buildings, or pavilions, arranged around a square. Each of these pavilions contained a classroom and living quarters for a professor, with enclosed gardens at the rear.⁴² Paul Venable Turner, Professor of Art Emeritus at Stanford University, said that Jefferson's design for his "academical village" was "an informal group of buildings, each having its own independence and individual character, as in any American town." In his letter to William Thornton in 1817, Jefferson said that he

Architect, by Frederick Doveton Nichols and Ralph E. Griswold (The University Press of Virginia, Charlottesville, VA, 1981), p. 148: quoted in Lipscomb and Bergh, 12: 387.

41. For details about the history of Albemarle Academy, see Philip Alexander Bruce, *History of the University of Virginia, 1819-1919: The Lengthened Shadow of One Man* (Macmillan, New York, 1920) Vol. 1, pp. 115-139. Nathaniel Francis Cabell, Editor, *Early History of the University of Virginia* (Richmond, Virginia, J.W. Randolph, 1856), Appendix D, "An Act for Establishing a College in the County of Albemarle," pp. 391-393.

42. Existing drawings for Albemarle Academy may have been the plans that were reviewed and approved for construction at a meeting of the Central College Board of Visitors on May 5, 1817. See: Cabell, N. F., Jefferson, T. 1856. *Early History of the University of Virginia as contained in the letters of Thomas Jefferson and Joseph C. Cabell, hitherto unpublished; with an appendix, consisting of Mr. Jefferson's bill for a complete system of education, and other illustrative documents; and an introduction, comprising a brief historical sketch of the University, and a biographical notice of Joseph C. Cabell. Richmond, Virginia: J. W. Randolph. Appendix E, pp. 393-397. Appendix E, the minutes of the Visitors of Central College, contains an unambiguous statement about the plans for Albemarle Academy and Central College: p. 394, "On view of a plan presented to the Trustees of Albemarle Academy, for erecting a distinct pavilion or building for each separate professorship, and for arranging these around a square, each [p. 395] pavilion containing a school room and two apartments for the accommodation of a professor, with other reasonable conveniences, the Board determines that one of these pavilions shall now be erected [...] And it is further resolved, that so far as funds may admit, the Proctor be requested to proceed to the erection of dormitories for the students adjacent to the said pavilion [...] according to the same plan proposed." See also, F.E. Grizzard, Jr., 1996, "Documentary History of the Construction of the Buildings at the University of Virginia, 1817-1828". Ph.D. Dissertation. Department of History, University of Virginia. Available online at: <http://etext.lib.virginia.edu/jefferson/grizzard/>. Accessed July 22, 2007. Chapter 1: Genesis of the Academical Village, 1814-1817, and Chapter 1 notes 20-24. Bruce argues that Jefferson's plans for Albemarle Academy that were presented to the Trustees were actually part of his planning for the university. [See Bruce, Volume 1, p. 131, and footnote on same page.]*

wanted the pavilions to have “a variety of appearance, no two alike, so to serve as specimens for the Architecture lecturer.”⁴³

On February 14, 1816, by an Act of the Virginia General Assembly, Albemarle Academy became Central College.⁴⁴ In 1817, construction of the first of a series of pavilions at Central College was approved, and on the sixth of October of that same year, a cornerstone was placed in position on the building site, a small hill near the town of Charlottesville. When the Virginia Assembly passed the act that transformed Central College into the University of Virginia on January 25, 1819, several buildings were under construction.⁴⁵

When the University of Virginia opened its doors to students in 1825, its physical structure, constructed according to Jefferson’s plans, was nearly complete. The Rotunda that housed the university’s library

43. See Paul Venable Turner, *Campus: An American Planning Tradition*, (New York, MIT Press, 1984), p. 83: 1817 letter from Jefferson to Thornton is quoted in Glenn Brown, “Letters from Thomas Jefferson and William Thornton, Architect, Relating to the University of Virginia,” *A.I.A. Journal*, January 1913, pp. 21-27. Brown’s quote from the text of Jefferson’s 1817 letter to Thornton does not match the transcription of the letter reproduced in Lambeth and Manning (1913), pp. 4-5: “so as to serve as specimens for the architectural lectures.” Thomas Jefferson to Dr. William Thornton, May 9, 1817, reproduced in Lambeth, W. A., Manning, W. H. 1913. *Thomas Jefferson as an Architect and a Designer of Landscapes*. Boston and New York: Houghton Mifflin Company. pp. 4-5. William Alexander Lambeth and Warren H. Manning state on page 4 that the letter “is now preserved in the archives of the University.”

44. Philip Alexander Bruce, *History of the University of Virginia, 1819-1919: The Lengthened Shadow of One Man* (Macmillan, New York, 1920) Vol. 1, pp. 138. The Act that created Central College is reproduced in Nathaniel Francis Cabell (1807-1891), *Early History of the University of Virginia: As contained in the letters of Thomas Jefferson and Joseph C. Cabell, hitherto unpublished; with an appendix, consisting of Mr. Jefferson’s bill for a complete system of education, and other illustrative documents; and an introduction, comprising a brief sketch of the University, and a biographical notice of Joseph C. Cabell*. (Richmond, Virginia, J.W. Randolph, 1856), Appendix D, “An Act for Establishing a College in the County of Albemarle,” pp. 391-393.

45. The dates for approval of construction and the laying of the cornerstone are in Philip Alexander Bruce, *History of the University of Virginia, 1819-1919: The Lengthened Shadow of One Man* (Macmillan, New York, 1920) Vol. 1, Chapter XIII, p. 188. The text of the legislative act that transformed Central College into the University of Virginia, “An Act Establishing the University,” is reproduced in Appendix K of *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. (Richmond, VA, J.W. Randolph, 1856) (Note: This book was edited anonymously by Nathaniel Francis Cabell. Joseph Carrington Cabell was Nathaniel Francis Cabell’s uncle.), pp. 447-450. In *Campus: An American Planning Tradition*, (New York, MIT Press, 1984), p.80-83, Paul Venable Turner compares the physical structure of the University of Virginia to other nineteenth-century American universities with similar physical structures that might have influenced Jefferson. Turner also discusses other sources of influence that informed Jefferson’s plans for the University of Virginia.

and communal meeting rooms is located at the north end of a central terraced rectangular lawn planted with trees. Originally, the south end of the Lawn was not enclosed with buildings. Along the east and west sides of the Lawn are ten buildings called Pavilions, five on each side, each one architecturally unique. These Pavilions, where the physical and intellectual structures overlap, were the homes and classrooms of the professors. The Pavilions are connected by small rooms for students (dormitories) that sit behind a continuous covered colonnade. To the rear of each Pavilion is a landscaped garden enclosed with serpentine brick walls. Beyond the walled gardens of both rows of Pavilions and dormitories is an outer row of buildings, called the Ranges. The Ranges include buildings called Hotels that are connected, like the Pavilions, to student dormitories. The Hotels served as dining halls for the students, and were managed and operated by staff hired for this purpose. There were a total of one hundred and nine student dormitories, and six Hotels.⁴⁶ Between the serpentine garden walls are walkways that lead from the Ranges to the upper dormitories and the Lawn. The topography of the site is not flat. The lawn is located along the ridge of a small hill, and the gardens and Ranges are located on the slopes behind each row of five Pavilions and connected dormitories.⁴⁷

University of Virginia historian Philip Alexander Bruce states that Jefferson was inspired by Palladio's drawings of important Greek and Roman sites. Andrea Palladio was a sixteenth-century Italian architect who published a set of four books on architecture, *I Quattro Libri dell'Architettura*, in 1570. The first English edition of these books, translated from the Italian original, was published by Italian architect Giacomo Leoni (1686-1746), and printed in London in 1715-20. Jefferson consulted the illustrations in these books for his building designs for the University of Virginia. Another source of inspiration was the

46. The numbers of dormitories and hotels are found in Bruce (1920), Vol. I, p. 251.

47. In his book, *Mr. Jefferson's University* (National Geographic Society, Washington, D.C. 2002), Gary Wills provides descriptions of the original buildings of the University of Virginia as they were in 1825, photographs of each Pavilion, and a site plan of the institution's physical structure. Mr. Wills won a Pulitzer Prize (1993) for General Non-Fiction for his book *Lincoln at Gettysburg: The Words that Remade America*. He received his Ph.D. in classics from Yale University in 1961, and is an adjunct professor of history at Northwestern University.

architecture he admired during his travels in Europe.⁴⁸ Bruce includes this description of the ten Pavilions and the Rotunda at the University of Virginia that Jefferson hoped would provide physical examples for lectures in architecture:

“Beginning at the head of the West Lawn, it will be found that Pavilion I was an adoption of the Doric of the Diocletian Baths; Pavilion III, Corinthian of Palladio; Pavilion V, Ionic of Palladio; Pavilion VII, Doric of Palladio; and Pavilion IX, Ionic of the Temple of Fortuna Virilis. Beginning again on the east side of the Lawn and descending from the north end, we observe Pavilion II, Ionic, after the style of the same temple; Pavilion IV, Doric of Albano; Pavilion VI, Ionic of the Theatre of Marcellus; Pavilion VIII, Corinthian of the Baths of Diocletian; Pavilion X, Doric of the Theatre of Marcellus; and the Rotunda, after the Pantheon at Rome.”⁴⁹

Administrative Structure of the University of Virginia

The University of Virginia’s original administrative structure is described in *An Act Establishing the University*.⁵⁰ The Act established a governing body of seven persons with the title “The Rector and Visitors of the University of Virginia.” In contrast to Dartmouth’s 1769 charter, the Act does not identify individual officers of the university by their given names. The Governor of the Commonwealth of Virginia appointed the original members of the Visitors, and with the advice of

48. Philip Alexander Bruce, *History of the University of Virginia, 1819-1919: The Lengthened Shadow of One Man* (The Macmillan Company; New York, 1920) Vol. 1, pp. 187, 240-245; Curl, J. S. 2006d. “Jefferson, Thomas” *A Dictionary of Architecture and Landscape Architecture*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 14 February 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e2451>.

—, 2006b. “Palladio, Andrea” *A Dictionary of Architecture and Landscape Architecture*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 14 February 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e3320>.

49. Philip Alexander Bruce, *History of the University of Virginia, 1819-1919: The Lengthened Shadow of One Man* (The Macmillan Company; New York, 1920) Vol. 1, p. 244.

50. Jefferson, Thomas, Cabell, Joseph C., “An Act Establishing the University,” (1819) in *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*, (J. W. Randolph; Richmond, Virginia, 1856) (Note: This book was edited anonymously by Nathaniel Francis Cabell.) The Act is reproduced in Appendix K, pp. 447-450. The responsibilities of the University’s governing Board of Visitors are described also in the “Rockfish Gap Report” that preceded the Legislative Act. This earlier report, titled “Report of the Commissioners Appointed to Fix the Site of the University of Virginia, &c.” (1818) is in Honeywell, Roy J., 1931 (1964 edition), *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, 1964), Appendix J., pp. 248-260.

the Governor's Council, had the power to remove Visitors and appoint replacements for vacancies.⁵¹ Unlike the Trustees of Dartmouth College, the Visitors are not a self-perpetuating body.

The University of Virginia is a branch of the civil government of the Commonwealth of Virginia. The Act states that the "Rector and Visitors shall, at all times, conform to such laws as the Legislature may, from time to time, think proper to enact for their government; and the said University shall, in all things, and at all times, be subject to the control of the legislature."⁵² At the University of Virginia we see the administrative, physical, and intellectual structures linked tightly together by the provisions of a legislative act that created an institution of higher education as a branch of government.

The Act required the Visitors to choose one of their own members for the position of Rector, an officer to preside at their bi-annual meetings held at the University. The Visitors were also required to appoint a secretary, a bursar, a proctor, and other necessary agents. The proctor was later assigned the duty of attorney to the Rector and Board of Visitors.⁵³ The Visitors are a corporate body with the right to use a seal, the capacity to sue and to be sued in court, to receive donations from corporations and individuals, and examine the records of the University. They reviewed the progress of the students at least once a year, and had the authority to establish student governance and disciplinary rules, as well as to "direct and do all matters and things which, not being incon-

51. "A Privy Council, or Council of State, consisting of eight members, shall be chosen, by joint ballot of both Houses of Assembly, either from their own members or the people at large, to assist in the administration of government." Excerpt from: Commonwealth of Virginia. 1776. The Constitution of Virginia; June 29, 1776, and Bill of Rights; June 12, 1776.: The Avalon Project at Yale Law School. <http://www.yale.edu/lawweb/avalon/states/va05.htm#1>. Source: *The Federal and State Constitutions Colonial Charters, and Other Organic Laws of the States, Territories, and Colonies Now or Heretofore Forming the United States of America, Compiled and Edited Under the Act of Congress of June 30, 1906 by Francis Newton Thorpe*, (Washington, DC : Government Printing Office, 1909).

52. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell* [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph. Section 9.

53. *Additional Regulation Adopted October 7, 1825*, reproduced in Lipscomb, A. A., Bergh, A. E., eds. 1904. *The Writings of Thomas Jefferson; Library Edition* Washington, D.C.: The Thomas Jefferson Memorial Association of the United States. Vol. XV. Appendix M, p. 277.

sistent with the laws of the land, to them shall seem most expedient for promoting the purposes” of the institution, exercised “in the form of by-laws, rules, resolutions, orders, instructions, or otherwise, as they shall deem proper.”⁵⁴

Under the provisions of the Act, the Visitors also are required to submit an annual financial report to the President and Directors of the Literary Fund, a state agency that funds the University. The Literary Fund subsequently presents this report to the Legislature. Philip Alexander Bruce said that this annual report provided an important opportunity for the university to directly communicate the needs of the institution to members of the state legislature.⁵⁵

The Act that established the University of Virginia tied the institution’s administrative structure to its physical structure. The Visitors were given the responsibility for the construction, preservation and repair of university buildings and the care of campus grounds and appurtenances (pathways, walls, and other structures).

The administrative and intellectual structures of the University of Virginia also are explicitly connected through the provisions of the Act: the Visitors have the power to appoint and remove professors, prescribe faculty duties, and define the course of education “in conformity with the law.” The Visitors have powers similar to those of Dartmouth’s Trustees, who had full authority to appoint and remove all college officers, including professors, and tutors. The appointment and removal of professors was addressed by the AAUP in their 1915 *Declaration of Principles of Academic Freedom and Academic Tenure*. Robert C. Post, Professor of Law at Yale University, and Matthew W. Finkin,

54. Jefferson, Thomas, Cabell, Joseph C., “An Act Establishing the University,” reproduced in *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*, edited anonymously by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856). The Act is reproduced in Appendix K, pp. 447-450. See also Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reprinted 1964), Appendix M, “Organization and Government of the University” pp. 269-278. Appendix M includes early enactments and regulations of the Visitors that were required of them by “An Act Establishing the University.” In Appendix M, pp. 270-276, see “Regulations Adopted by the Board of Visitors of the University of Virginia, October 4, 1824, Jefferson, Madison, Breckenridge, Cocke, Loyall, and Cabell Being Present (Library Ed., XIX, 439-451).”

55. Bruce, Vol. 1, p. 199: “This offered a regularly recurring opportunity of arousing an interest in the College in the minds of the persons who had the most power to serve it.”

Professor of Law at The University of Illinois at Urbana-Champaign, write: “as employees, faculty were subject to this “arbitrary power of dismissal.”⁵⁶ In 1907, Charles W. Eliot, President of Harvard University, said that some governance boards “exclude from the teachings of the university unpopular or dangerous subjects. In some states they even treat professors’ positions as common political spoils; and all too frequently, both in state and endowed institutions, they fail to treat the members of the teaching staff with that high consideration to which their functions entitle them.”⁵⁷

The terms of the original Act of 1819 required the Visitors to determine which areas of study, all of which are listed in the Act, would be taught by each of ten professors. The original legislation that established the University of Virginia, and the specific regulations that were subsequently written by the governing Visitors, assigned limited administrative functions to the faculty.⁵⁸ In addition to their essential role as teachers, the faculty were given the authority to administer the laws of the University related to student conduct, and prescribe new regulations for this purpose as needed. The faculty functioned as the

56. Finkin, M. W., Post, R. C. 2009. *For the Common Good: Principles of American Academic Freedom*. New Haven & London: Yale University Press. p. 31. Finkin and Post cite: Charles W. Eliot, “Academic Freedom,” *Science*, July 5, 1907, pp. 1, 3.

57. Eliot, C. W. 1907. “Academic Freedom”. *Science* 26: 1-12. Also quoted in: Finkin, M. W., Post, R. C. 2009. *For the Common Good: Principles of American Academic Freedom*. New Haven & London: Yale University Press. Notes, Chapter 2. “The 1915 Declaration and the American Concept of Academic Freedom.” Note 9, p. 204.

58. The role of the faculty in the administrative structure of the University of Virginia at its establishment is described in the regulations and enactments of the Visitors. See: Roy J. Honeywell, *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, (1931, reprinted 1964), Appendix M, “Organization and Government of the University,” pp. 269-278. Appendix M includes the following: “Enactment of the Board of Visitors of the University of Virginia, April 7, 1824, Jefferson, Madison, Johnson, Cocke, and Cabell Being Present (Library Ed., Volume XIX, 433-436)”, pp. 269-270; “Regulations Adopted by the Board of Visitors of the University of Virginia, October 4, 1824, Jefferson, Madison, Breckenridge, Cocke, Loyall, and Cabell Being Present (Library Ed., XIX, 439-451),” pp. 270-276; “Additional Regulations Adopted October 3, 1825 (Library Ed., XIX, 472-473),” p. 276; and “Resolution of the Board of Trustees of the University of Virginia, October 3, 1825, Jefferson, Madison, Breckenridge, Cabell, Cocke, Johnson, and Loyall Being Present (Library Ed., XIX, 468-470),” p. 277-278. *Library Ed.*, refers to Honeywell’s source, Lipscomb, Andrew A., Ed., *The Writings of Thomas Jefferson, Library Edition*, 20 Volumes, Washington, D.C., The Thomas Jefferson Memorial Association, 1903. Note: There are other similar multi-volume sets titled *The Writings of Thomas Jefferson, Definitive Edition*, and *Memorial Edition*, which differ from the *Library Edition*.

campus police. They were required to discover and prevent offenses against university laws and property, take roll, report absent and tardy students to parents and guardians, and dismiss students if necessary. In an appendix to the book, *Early History of the University of Virginia*, Professor John B. Minor, who taught law at the University of Virginia from 1845 to 1893, describes the faculty's administrative role as of roughly 1856. At that time, members of the Faculty were in control of the day-to-day affairs of the college, and the faculty chairman functioned as the University President. Professor Minor supports Jefferson's position that a system of university governance with a rotating faculty chairmanship instead of a university president prevents the institution from becoming dependent on the expertise of a single individual, and promotes a lively interest in the institution and shared responsibility for its success among the faculty.⁵⁹

The rotating faculty chairmanship is a type of decentralized administrative structure. The position of chair is held temporarily by a member of the faculty. In contrast, a separate office of University President that has permanent governing authority over the university's affairs and its faculty is an example of a centralized hierarchical administrative structure.

In contrast to the eighteenth-century administrative structure of Dartmouth College, the administrative structure of the University of Virginia did not include a university president. The Visitors established regulations for faculty meetings during which the faculty could discuss topics related to their function at the university. Each year, the members of the Faculty, who were equal in rank, elected one of their own to act as chairman and to preside at their meetings. Records of these meetings were submitted to the Visitors. Recall that at Dartmouth, prior to the removal of President John Wheelock in 1815 by that institution's Trustees, the college president was a member of both the college faculty and the Board of Trustees.

In 1826, after the Visitors voted to establish the office of univer-

59. Jefferson, Thomas, Cabell, Joseph C., *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*, edited anonymously by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Appendix Q, pp. 519-522: "The following paper from the pen of Professor Minor, of the Law Department, will shew the present administration of the University; its general conformity with the original plan, and the few particulars in which it has been found expedient to deviate therefrom." p. 519.

sity president, Jefferson protested in writing, stating that the creation of the office of president was not within the legal powers of the Rector and Visitors of the University, the salary for that office was beyond the means of the institution, and the duties of that office would duplicate those of the chairman of the Faculty.⁶⁰ At the time, Jefferson was Rector and he may have seen the proposal as a challenge to his authority and the years of planning he had invested in the design of the university. The proposed Presidential powers included: presiding over the execution of university laws, control over the proctor and other university agents, and authority to call meetings of the faculty.⁶¹

Jefferson thought that a university president was unlikely to rule without prejudice and that members of the faculty would seek to gain favor with such an officer to advance personal goals.⁶² Through the decades, subsequent attempts by the Visitors to alter the administrative structure of the University and establish an office of President were met with opposition by the faculty as well as some members of the board of Visitors. Their arguments included the assertions that the office of President would weaken the Faculty's independent governing authority, that it was "repugnant to the fundamental theory upon which the University had been organized," and that it would attract an individual with greater interest in the prestige of the appointment than the well being of the institution.⁶³

The first President of the University of Virginia was appointed

60. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reprinted 1964), pp. 99-101. Honeywell cites "Minutes of the Board of Visitors, April 3-4, 1826," in *Library Ed.*, Vol. XIX, pp. 492-493. Also: Philip Alexander Bruce, *History of the University of Virginia 1819-1919* (Five Volumes) (The Macmillan Company; New York, 1922), Vol. V, p. 6.

61. For the history of the office of President at the University of Virginia, see Philip Alexander Bruce, *History of the University of Virginia 1819-1919* (Five Volumes) (The Macmillan Company; New York, 1922), Vol. V, pp.1-66. The proposed powers of the President appear on page 6.

62. Roy J. Honeywell, *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, (1931, reissued 1964), p. 100. Honeywell cites George Tucker, *The Life of Thomas Jefferson, Third President of the United States...* (Philadelphia, PA, Carey, Lea and Blanchard, 1837), Vol. II, p. 479. Tucker was Professor of Moral Philosophy at the University of Virginia.

63. See Bruce, Vol. V, (1922), pp. 21, 22.

by vote of the Visitors on June 14, 1904.⁶⁴ The powers assigned to the President included the role of impartial messenger between the Visitors and the Faculty, discipline of the students, oversight of the institution's internal academic and administrative affairs, and the responsibility to review and adjust the annual budget. In addition, the President was a non-voting member of the board of Visitors, represented the University at public events, chaired the Faculty meetings, and recommended appointments to fill administrative and faculty positions. Bruce states that the office of President, a form of autocracy, was expected to bring greater efficiency to the government of the institution than the democratic system established by Jefferson.⁶⁵

Our analysis of the evolution of the administrative structure began with a look at the privately-controlled Dartmouth College, a colonial institution with a self-perpetuating governance board largely disconnected from the state's civil government. The next stage in the evolution is the establishment of publicly-controlled state institutions that are branches of state government. The University of Virginia, established in the nineteenth century, provides only one example of this kind of administrative structure. Some aspects of the administrative structures of other publicly-controlled institutions of higher education vary from that of the University of Virginia model. For example, the members of U.Va.'s Board of Visitors are appointed to their positions, whereas the Regents of the University of Michigan are elected at large in biennial state-wide elections.⁶⁶ In contrast to the University of Virginia's Board of Visitors, which is subject to the control of the legislature at all times, the Regents of the University of California are an autonomous body. During the California Constitutional Convention of 1878-79, the convention's Education Committee presented the following recommendation to isolate the Regents of the University of California from interference by the State legislature: "The University of California shall consti-

64. See Bruce, Vol. V, (1922), pp. 3, 21, 38.

65. See Bruce, (1922), Vol. V, pp. 62-66. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company.

66. University of Michigan. 2009. *About the Board of Regents: The Regents of the University of Michigan*. <http://www.regents.umich.edu/about/>. See also: <http://www.bentley.umich.edu/exhibits/regents/history.php> (Accessed: July 10, 2009).

tute a public trust, and its organization and government shall be perpetually continued in their existing form and character, subject only to such legislative control as may be necessary to insure compliance with the terms of its endowments, and of the several Acts of the Legislature of this State, and of the Congress of the United States, donating land and money for its support.”⁶⁷ To provide further protection to the University from the whims of politics, the committee also proposed that the University be “entirely independent from all political and/or sectarian influences, and kept free therefrom in the appointment of its regents, and the administration of its affairs.”⁶⁸ Other administrative structure differences are found in the role of the university president in relation to the faculty and the institution’s governance board, and in the faculty’s level of participation in the administrative structure. We leave to others the work to analyze and compare the differences in the administrative structures of all the public institutions of higher education in the United States.

Administrative Structure: Student Government

Jefferson thought that an affectionate father-son relationship be-

67. Willis, E. B., Stockton, P. K. 1881. *Debates and Proceedings of the Constitutional Convention of the State of California, Convened at the City of Sacramento, Saturday, September 28, 1878*. Volume II. Sacramento, California: State Printing Office. pp. 1086-1087. Also quoted in: Douglass, J. A. 1992. “Creating a Fourth Branch of State Government: The University of California and the Constitutional Convention of 1879”. *History of Education Quarterly* 32: 31-72. pp. 57-58. Douglass cites “Debates and Proceedings of the Constitutional Convention of the State of California, 1879 (Sacramento, 1880), p.1087.

68. —. 1992. “Creating a Fourth Branch of State Government: The University of California and the Constitutional Convention of 1879”. *History of Education Quarterly* 32: 31-72. Douglass cites “Debates and Proceedings of the Constitutional Convention of the State of California, 1879, p. 1086. In 2009, the Constitution of the State of California, Article IX, Section 9, states: “SEC. 9. (a) The University of California shall constitute a public trust, to be administered by the existing corporation known as ‘The Regents of the University of California,’ with full powers of organization and government, subject only to such legislative control as may be necessary to insure the security of its funds and compliance with the terms of the endowments of the university and such competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services [...] The university shall be entirely independent of all political or sectarian influence and kept free therefrom in the appointment of its regents and in the administration of its affairs...” See: State of California. 1879. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011 http://www.leginfo.ca.gov/.const/.article_9)

tween students and professors should be cultivated and that an appeal to “pride of character, laudable ambition, and moral dispositions” would better nurture students than regulations based in fear and humiliation.⁶⁹

“The best mode of government for youth, in large collections, is certainly a desideratum not yet attained with us. It may well be questioned whether fear after a certain age, is a motive to which we should have ordinary recourse. ... It will then be for the wisdom and discretion of the Visitors to devise and perfect a proper system of government, which, if it be founded in reason and comity, will be more likely to nourish in the minds of our youth the combined spirit of order and self-respect, so congenial with our political institutions, and so important to be woven into the American character.” —Thomas Jefferson, Rockfish Gap Report ⁷⁰

The young men who enrolled at the University of Virginia in the early nineteenth century were the sons of wealthy Southern merchants and plantation owners and were expected to be mature and sober students capable of self-governance. Jennings L. Wagoner, Jr., Professor of the History of Education at the University of Virginia, explains that Thomas Jefferson, James Monroe, James Madison, and other notable members of the board of Visitors, “were men of high ideals and noble purpose and expected the same from students supposedly drawn from the finest southern families.” The majority of these students attended the university to advance their social position and were not prepared for the demanding work required by academia. Consequently, most stayed for only one session and few earned the title of “Graduate.” ⁷¹

The total annual cost of attending the University of Virginia prior to the Civil War was about twice the cost of attending Harvard, Yale,

69. Thomas Jefferson, “Report of the Rockfish Gap Commission Appointed to Fix the Site of the University of Virginia,” 4 August 1818, in *Theories of Education in Early America 1655-1819*, ed. Wilson Smith (Indianapolis, 1973), 334; quoted in Wagoner, J. L., Jr. 1986. Honor and Dishonor at Mr. Jefferson’s University: The Antebellum Years. *History of Education Quarterly* 26: 155-179. pp. 155-179. Jennings L. Wagoner, Jr. is Professor of the History of Education at the University of Virginia.

70. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), “Report of the Commissioners Appointed to Fix the Site of the University of Virginia, &c.” (in *Cabell*, 432, ff.) (Rockfish Gap Report), reproduced in Honeywell, Appendix J, pp. 248-260. Excerpt appears on p. 257.

71. Wagoner, J. L., Jr. 1986. “Honor and Dishonor at Mr. Jefferson’s University: The Antebellum Years.” *History of Education Quarterly* 26: 155-179. pp. 155-179. Quote found on p. 166. Description of students found on page 170, and in footnotes on the same page.

or Princeton.⁷² In response to critics who questioned why the state was providing higher education at public expense to students from families that could easily afford the cost, the University adopted a program of state scholarships. Fifty two-year state scholarships, one for each senatorial district and ten distributed to the Commonwealth at large, existed prior to 1874-75.⁷³

Consistent with Jefferson's ideal that less government is better, the Visitors adopted a student government structure based on the principle that students should exercise their own discretion and that fewer regulations would encourage self-control. Enactments of the University adopted in 1825 stated: "When testimony is required from a student, it shall be voluntary, and not on oath. And the obligation to give it shall be left to his own sense of right."⁷⁴

A judicial body called the Board of Censors, which consisted entirely of student members selected by the Faculty, was charged with deciding all cases of minor student misconduct. The University granted the students the right of self-governance, but they declined to carry out their responsibilities.⁷⁵ Philip Alexander Bruce says that the student Censors had been appointed to their positions without their consent and placed in a position that would have made them unpopular with their classmates.⁷⁶

This idealistic form of governance did not last long. A substantial

72. *ibid.* p. 167. Jennings cites Charles Coleman Wall, "Students and Student Life at the University of Virginia, 1825-1861," Dissertation in History, University of Virginia, 1978, pp. 66-67. Available in University of Virginia Library. Jennings also cites Ernest P. Ernest, *Academic Procession: An Informal History of the American College, 1636 to 1953* (Indianapolis, 1953); and David F. Allmendinger, *Paupers and Scholars: the transformation of student life in nineteenth-century New England* (New York, St. Martin's Press, 1975), pp. 50-51.

73. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. References to scholarships are found in Vol. II, p. 69-70, and Vol. IV, pp. 20-21.

74. Wagoner, J. L., Jr. 1986. Honor and Dishonor at Mr. Jefferson's University: The Antebellum Years. *History of Education Quarterly* 26: 155-179. pp. 155-179. Quote found on p. 167. Jennings' source is: *Enactments by the Rector and Visitors of the University of Virginia* (Charlottesville, 1825), p. 10. See also: Bruce. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Vol. II, pp. 258-261.

75. —. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Vol. II, p. 261

76. Bruce. *Ibid.* Vol. II, p. 263

contributing factor to the collapse of the administrative structure, according to Bruce, was the inability of the Faculty to act without direction from the Visitors. University regulations enacted by the Visitors on October 4, 1824, granted authority to the faculty to suspend, or expel students for major violations of university laws, with approval by the Board of Visitors. Most of the offenses described in this enactment, except for the use of weapons in duels, were considered minor, and fell under the jurisdiction of student Board of Censors.⁷⁷ The failure of student self-governance extended upward through the hierarchy of authority and disrupted the functioning of the intellectual and administrative structures of the university, and the University disintegrated into a state of “insubordination, lawlessness, and riot.”⁷⁸ Mr. William Wertenbaker, the University Librarian, wrote that the conditions at the university

“... became so intolerable to the professors that they suspended operations, and tendered their resignations to the Board of Visitors. The Board met immediately; abandoned the plan of self-government; enacted new laws; ordered a course of rigid discipline to be pursued, and invested the Faculty with full authority to rule and govern the institution.”⁷⁹

The student riot of 1825 instigated threats of faculty resignations. During this incident, students tossed a bottle of urine into one of the professor’s quarters, hurled sticks, stones, and epithets at faculty who attempted to quell the disruption, and the following day blamed the faculty for starting the riot. The students refused to identify their fellow offenders. To respond to the riot and the impending faculty res-

77. Roy J. Honeywell, *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, (1931, reissued 1964), “Regulations Adopted by the Board of Visitors of the University of Virginia, October 4, 1824, Jefferson, Madison, Breckenridge, Cocke, Loyall, and Cabell Being Present (Library Ed., XIX, 439-451),” in Appendix M, pp. 270-276.

78. Bruce, Vol. II, p. 263. Bruce attributes this phrase to Mr. Wertenbaker. William Wertenbaker was University Librarian from 1826 to 1881.

79. William Wertenbaker quoted in Ingram, J. H. 1880. *Edgar Allan Poe: His Life, Letters, and Opinions*. London: John Hogg, Paternoster Row. Vol. I, pp. 44-45. John H. Ingram does not provide a citation for the quoted text. J.H. Shera, review of “The University of Virginia Library, 1825-1950: Story of a Jeffersonian Foundation” by Harry Clemons, in *The Mississippi Valley Historical Review*, Vol. 41, No. 4 (March 1955), pp. 722-723: William Wertenbaker was the University’s second librarian, “who at various intervals held that position for over forty years, and who made a significant contribution to the organization and cataloguing of the collections.”

ignations, three of the Visitors, all former presidents of the United States—Jefferson, Madison, and Monroe—held a special session in the Rotunda to address the students. Many of the students involved in the riot were expelled, including Jefferson’s nephew.

That same year, recognizing the failure of Jefferson’s ideal of student government, the Visitors adopted new university regulations and charged the Faculty with the authority to enforce the rules and statutes of the University, including the power to directly suspend and expel students from the university. They were also given authority to prescribe additional regulations as necessary.⁸⁰ In their Resolution of October 3, 1825, the Visitors recorded this statement:

“The Visitors are aware that a prejudice prevails too extensively among the young that it is dishonorable to bear witness one against another. While this prevails, and under the form of a matter of conscience, they have been unwilling to authorize constraint, and have therefore, in their regulations on this subject, indulged the error, however unfounded in reason or morality. But this loose principle in the ethics of school-boy combinations, is unworthy of mature and regulated minds, and is accordingly condemned by the laws of their country, which, in offences within their cognizance, compel those who have knowledge of a fact, to declare it for the purposes of justice, and of the general good and safety of society.”⁸¹

The amended University regulations did not prevent future disruptive incidents. Five years later, two students, one who had recently been expelled, the other suspended, challenged a professor to a fight to restore a student’s “damaged honor.” When the professor declined the challenge, the students flogged him with a horsewhip. Student riots in 1836 and 1845 were so violent that they required intervention by the state militia. In 1840, Law Professor John Davis was shot by a masked student and died a few days later.⁸²

80. Roy J. Honeywell, *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, (1931, reissued 1964), “Resolution of the Board of Trustees of the University of Virginia, October 3, 1825, Jefferson, Madison, Breckenridge, Cabell, Cocke, Johnson, and Loyall Being Present (*Library Ed.*, XIX, pp. 468-470),” in Appendix M, pp. 277-278.

81. Roy J. Honeywell, *The Educational Work of Thomas Jefferson*, (Russell & Russell, Inc., New York, (1931, reissued 1964), “Resolution of the Board of Trustees of the University of Virginia, October 3, 1825, Jefferson, Madison, Breckenridge, Cabell, Cocke, Johnson, and Loyall Being Present (*Library Ed.*, XIX, pp. 468-470),” in Appendix M, pp. 277-278.

82. Wagoner, J. L., Jr. 1986. Honor and Dishonor at Mr. Jefferson’s University: The Antebellum Years. *History of Education Quarterly* 26: 155-179. pp. 155-179, esp. pp.

The student honor system, still in operation, was adopted by the University of Virginia in 1842. It applies to cheating on exams, lying, and stealing. Under this system at the time of its adoption, a student who had violated university regulations could retain his student status by submitting a written pledge that he would not repeat his offense that was co-signed by three fellow students. The three co-signers promised to report any additional violations committed by the offending student. By linking the offending student to his classmates a bond of honor is created between the students. If the offending student commits an additional violation of university regulations, he would damage the integrity of his classmates' vows. Jennings Wagoner, in regard to the duty accepted by the co-signers, says that "the integrity of their vow now made it honorable, not dishonorable, to report on the misbehavior of those who had pledged their word."⁸³

Funding for the University of Virginia

"In the pre-Civil War period, institutions founded primarily on principles other than religion generally suffered for want of support, or failed to survive."

—Donald George Tewksbury (1894–1958), 1932⁸⁴

"It is not from the aristocracy of wealth that we are to expect contributions to the mass of useful knowledge ... Every state ought to have at the public expense, even if it should cost half a million or a millions of dollars, an university, with ample provision of professors..."

—Dr. Thomas Cooper (1759–1840), 1834⁸⁵

175-178. Jennings discusses southern culture and its role in issues related to student government at the University of Virginia during its first decades. See also, Bruce (1920), Vol. II, pp. 294-311.

83. *ibid.* p. 178.

84. Donald George Tewksbury, *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement*, (Copyright 1932 by Teacher's College, Columbia University, reprinted in an unabridged edition by Archon Books in 1965), p. 79.

85. Thomas Cooper, *A Manual of Political Economy* (Washington: Printed and Published by D. Green, 1834), p. 99. Source Citation: Cooper, Thomas. *A manual of political economy*. Washington, 1834. *The Making of the Modern World*. Thomson Gale. 2008. Thomson Gale. Access paid by The UC Santa Cruz Library. 30 January 2008, <<http://galenet.galegroup.com/servlet/MOME?af=RN&ae=U3604877022&srcht=a&ste=14>>

“Preach, my dear Sir, a crusade against ignorance; establish and improve the law for educating the common people. Let our countrymen know that the people alone can protect us against these evils, and that the tax which will be paid for this purpose is not more than the thousandth part of what will be paid to kings, priests and nobles who will rise up among us if we leave the people in ignorance.”
—Thomas Jefferson to George Wythe, August 13, 1786 ⁸⁶

The American Revolution brought an end to English control and the authority of the established Anglican (Episcopal) Church. Each Anglican parish had a church and a priest that were supported by attached agricultural lands called a ‘glebe’, or ‘glebe farm’. In 1802 the General Assembly of Virginia passed the Separation Acts, which disconnected the Anglican Church from its established position in civil government and education. In the Separation Acts, the state said that deserted and confiscated churches and their glebe lands could be sold and the proceeds used for the education of orphans and the poor. Eventually, the practice of selling glebe lands for the support of public education led the Commonwealth of Virginia to create a permanent fund to support public education. In 1810, Virginia’s legislature passed a bill “to appropriate certain escheats, confiscatures, and forfeitures to the encouragement of learning,” and established “The Literary Fund of Virginia.” ⁸⁷

On February 21, 1818, the Virginia legislature passed “An Act Appropriating Part of the Revenue of the Literary Fund, and for other Purposes,” which set aside \$45,000 annually to support elementary schools and \$15,000 annually to support the University of Virginia. Section eight of this Act states “that there shall be established in some convenient and proper part of the State, a University, to be called ‘The University of Virginia,’ wherein all the branches of useful science shall be taught.” Section nine of the Act states “That as soon as the site of the said University shall be ascertained by law, there shall be appropriated

86. Excerpt from letter written by Thomas Jefferson to Andrew Wythe, August 13, 1786, in Merrill D. Peterson, *Writings / Thomas Jefferson* (New York, N.Y. : Literary Classics of the U.S. : Distributed to the trade in the U.S. and Canada by the Viking Press, c1984), pp. 857-860.

87. The history of the origins of the Literary Fund are found in a paper written by William Arthur Maddox, Assistant Professor of Education and sometime research scholar in the history of education at Teachers College, Columbia University. See: Maddox, W. A. 1918. “The Free School Idea in Virginia Before the Civil War: A Phase of Political and Social Evolution”. *Contributions to Education*, No. 93. New York City: Teachers College, Columbia University. Chapter IV.

out of the revenue of the literary fund, the sum of fifteen thousand dollars per annum, for the purpose of defraying the expenses of procuring the land and erecting the buildings, and for the permanent endowment of the said University.”⁸⁸ The annual amount appropriated under the Act was insufficient to meet the University’s construction costs. Additional funds for this purpose were obtained in the form of loans to the University from the Legislature.⁸⁹

In 1819, *An Act Establishing the University* transferred all property belonging to Central College to the University of Virginia, including promised installments on voluntary contributions (subscriptions) pledged by individuals to the College. College records indicate a total of over 200 such subscriptions, including \$1000 contributed by Thomas Jefferson.⁹⁰

In addition to financial support provided by the Literary Fund and voluntary donations from individuals, the University received money from tuition and dormitory rents. The legislative act that established the University of Virginia gave the Visitors the authority to draw money from the literary fund, and to regulate the tuition fees paid by students and the amount of rent charged for occupying the University’s student dormitories. The Professors received a standing salary drawn from the Literary Fund endowment, supplemented with tuition fees from each student as determined by the Visitors, but were permitted to engage in financially profitable activities outside the university only with permis-

88. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856). “An Act Appropriating Part of the Revenue of the Literary Fund, and for other Purposes,” is reproduced in Appendix H, pp. 427-432; “An Act Establishing the University” is reproduced in Appendix K, pp. 447-450.

89. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Appendix M, pp. 456-487. Appendix M contains reports from the Rector and Visitors of the University to the President and Directors of the Literary Fund.

90. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Appendix F, pp. 404-412. According to MeasuringWorth [<http://www.measuringworth.com/uscompare/>], in 2006, \$1,000.00 from 1818 is worth: \$16,350.36, using the Consumer Price Index; \$19,223.69, using the GDP deflator using the value of consumer bundle; *\$221,916.67, using the unskilled wage; \$545,834.62, using the nominal GDP per capita; and \$18,069,916.28, using the relative share of GDP.

sion from the Visitors.⁹¹ In the twenty-first century, the Literary Fund part is still part of the Constitution of Virginia which states in part:

“The General Assembly shall set apart as a permanent and perpetual school fund the present Literary Fund; the proceeds of all public lands donated by Congress for free public school purposes, of all escheated property, of all waste and unappropriated lands, of all property accruing to the Commonwealth by forfeiture except as hereinafter provided, of all fines collected for offenses committed against the Commonwealth, and of the annual interest on the Literary Fund; and such other sums as the General Assembly may appropriate.”⁹²

Intellectual Structure of the University of Virginia

In January of 1800, nineteen years before the University of Virginia was established, Jefferson wrote to Dr. Joseph Priestley in Pennsylvania.⁹³ In his letter, he discussed his plans for establishing a university, his expectation that professors at this future university would devote all of their energies to academic work, and his confidence that the institution would attract the most highly qualified scientists in Europe. He listed the sciences that he thought would be “useful and practicable.” These were “botany, chemistry, zoology, anatomy, surgery, medicine, natural philosophy, agriculture, mathematics, astronomy, geography, politics, commerce, history, ethics, law, arts, and fine arts.” Jefferson admitted that the work to design the intellectual structure of a university was difficult, and asked Priestley for his ideas and advice on how to

91. See Honeywell, Roy J., *The Educational Work of Thomas Jefferson* (Russell & Russell; New York, 1964), “Enactment of the Board of Visitors of the University of Virginia, April 7, 1824, Jefferson, Madison, Johnson, Cocke, and Cabell Being Present,” pp. 269-270 in Appendix M, “Organization and Government of the University,” pp. 269-278 (*Library Ed.*, Volume XIX, 433-436).

92. Constitution of Virginia. Article VIII. Section 8. The Literary Fund. <http://legis.state.va.us/Laws/search/Constitution.htm#8S8>.

93. Joseph Priestley (1733-1804): English theologian, scientist, and educator, remembered for the discovery of oxygen, emigrated from England to America in 1794 and settled in Pennsylvania. “Let all the friends of liberty and human nature join to free the minds of men from the shackles of narrow and impolitic laws. Let us be free ourselves, and leave the blessings of freedom to our posterity.” quote in F.W. Gibbs, “Joseph Priestley: Revolutions of the Eighteenth Century” (1967), p. 42. Vincent Freimarck. “Priestley, Joseph”; <http://anb.org.oaca.ucsc.edu/articles/13/13-02599.html>. American National Biography Online, Feb. 2000. Access date: Wed Jun 27 2007 12:09:32 GMT-0700 (PDT) Published by Oxford University Press.

group branches of learning under the fewest number of professors to create the most functional and financially feasible plan.⁹⁴ Jefferson's communication with Priestley took place three years prior to the first published evidence of Dartmouth's traditional curriculum in 1797. In contrast to Jefferson's purposeful efforts to consider and select courses of study most useful to society, at least one historian has found no evidence that Wheelock, the founder of Dartmouth College, "devoted any serious thought to educational problems as such. He seems to have been quite content to accept the conventions of his times."⁹⁵

Jefferson also wrote to Thomas Cooper, Dr. Priestley's son-in-law, for advice on the intellectual structure of the University of Virginia. Dr. Cooper, a chemist and lawyer, advised Jefferson to omit theology from his plans for the curriculum. However, the absence of a professor of theology at the University sparked animosity grounded in the notion that an institution that had no professor of religion was opposed to all religion. To quiet this opposition, Jefferson invited Christian denominations to each establish their own theological schools in proximity to the University, with the thought that this would provide an opportunity for their students to take courses offered by the University.⁹⁶ The churches declined Jefferson's of-

94. Jefferson to Dr. Joseph Priestley, January 18, 1800. Honeywell, 1931, Appendix C, pp. 215-216, also in *The Writings of Thomas Jefferson, Library Edition*, Andrew A. Lipscomb and Albert Ellery Bergh, editors. Issued under the auspices of The Thomas Jefferson Memorial Association, Washington, D.C., 1904, Volume X, pp. 140-142.

95. Leon Burr Richardson, *History of Dartmouth College* (Dartmouth College Publications; Hanover, New Hampshire, 1932), Vol. 1, p. 120. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Report to the President and Directors of the Literary Fund, October 7, 1822, in Appendix M, p. 474.

96. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), p. 125. Honeywell cites Adams, H. B. 1888. U.S. Bureau of Education. 1888. Circular of Information, No. 1, 1888. Contributions to American Educational History, No. 2: Thomas Jefferson and the University of Virginia. Washington, D.C.: Government Printing Office. p. 61; "Minutes of the Board of Visitors, October 7, 1822," in Library Ed., Vol. XIX, pp. 413 - 416; and Cabell, pp. 473 - 475. In a letter to Thomas Cooper, Jefferson wrote: "After stating the constitutional reasons against a public establishment of any religious instruction, we suggest the expediency of encouraging the different religious sects to establish, each for itself, a professorship of their own tenets on the confines of the university, so near as that their students may attend the lectures there and have the free use of our library and every other accommodation we can give them; preserving, however, their independence of us and of each other. This fills the chasm

fer, but an alternative solution was eventually adopted. Each year, a Chaplain representing one of the major Christian denominations (Baptist, Presbyterian, Methodist, or Episcopalian) was appointed to provide religious services in a room in the Rotunda. In contrast to compulsory chapel attendance at other colleges and universities, the students, Visitors, and faculty of the University of Virginia were not required to attend chapel. They contributed voluntarily to a fund for the support of these services.⁹⁷ The construction of a chapel on campus was first contemplated in 1835 when the number of people attending these services was too large to be accommodated in a small room in the Rotunda. In 1890, the construction of the campus chapel was complete. No state funds were spent on this building; but, after it was constructed, it became the property of the Commonwealth of Virginia.⁹⁸

In a letter to Nathaniel Bowditch, a prospective professor of mathematics for Central College, Jefferson wrote that the distinguished members of the present board of Visitors should be enough to effectively promise, “that the tenure is in fact for life.”⁹⁹ The transitory nature of board membership does not support Jefferson’s promise. A professor

objected to ours, as a defect in an institution professing to give instruction in all useful sciences... And by bringing the sects together, and mixing them with the mass of other students, we shall soften their asperities, liberalize and neutralize their prejudices, and make the general religion a religion of peace, reason, and morality.” —Thomas Jefferson to Thomas Cooper, 1822. in *The Writings of Thomas Jefferson, (Memorial Edition)* Lipscomb and Bergh, editors, Vol. 15, p. 405), posted on “Thomas Jefferson On Politics & Government: Quotations from the Writings of Thomas Jefferson”: <http://etext.virginia.edu/jefferson/quotations/jeff1370.htm>. Accessed February 12, 2008.

97. See Bruce (1920), Vol. II, pp. 361-380. It is important to note that the four major Christian denominations (Baptist, Presbyterian, Methodist, and Episcopalian) did not include the Unitarians. In 1839, when a university chapel was under consideration by the Visitors, two members of the board had serious reservations about the proposal. They worried that the project would encourage the Unitarians to claim a right to the office of campus chaplain, which would be “a gross abuse of the principles of religious freedom and toleration.” See Bruce, Vol. II, p. 378. CF: the resignation of Thomas Cooper under pressure from Presbyterians; also, Jefferson’s statement that the character of individuals on the board of Visitors was a promise “that the tenure is in fact for life.” The statement about Unitarians made by two Visitors is evidence that the transitory membership of a governing board does not provide any guarantee that an appointment is secure.

98. Bruce (1920), Vol. II, pp. 377-378, and Vol. IV, pp. 177-180.

99. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), p. 98-99.

might be appointed under the direction of the members of one board, and removed years later at the whim of a different board. The board's members are appointed by the governor, another public official that holds an office for a limited period of time. Permanent tenure for professors cannot extend from officers that hold temporary appointments.

According to Honeywell, Jefferson expressed this security for professorships as “freedom of teaching” in a letter to William Roscoe, an English historian and writer: “This institution will be based on the ilimitable freedom of the human mind. For here we are not afraid to follow truth wherever it may lead, nor to tolerate any error so long as reason is left free to combat it.”¹⁰⁰ Earlier in the same year, Jefferson also wrote to Thomas Cooper and spoke of the University of Virginia as “...an establishment which I contemplate as the future bulwark of the human mind in this hemisphere.”¹⁰¹

Evidently, reason was not “left free” to combat ideological opposition to the appointment of Dr. Thomas Cooper, the University of Virginia's first professor. Cooper was appointed to both Professor of Chemistry and of Law, but his appointment was soon opposed by Presbyterians who accused him of being a Unitarian.¹⁰² The editor of a religious magazine, Dr. John Rice, who had also provided support to the university,

100. Thomas Jefferson to William Roscoe, December 27, 1820. *The Writings of Thomas Jefferson, Library Edition*, Andrew A. Lipscomb and Albert Ellery Bergh, editors, The Thomas Jefferson Memorial Association, Washington, D.C. 1904. Vol. XV. The transcribed letter appears on pp. 302-304, the quote is found on page 303. Honeywell (1964), p. 99. Roscoe (1753 – 1831) was an English writer, scholar, lawyer and banker. See: “Roscoe, William”, in *The Oxford Companion to English Literature*. Ed. Margaret Drabble. Oxford University Press, 2000. Oxford Reference Online. UC Santa Cruz. 27 June 2007, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t113.e6566>.

101. Letter from Thomas Jefferson to Thomas Cooper, August 14, 1820: “... an establishment which I contemplate as the future bulwark of the human mind in this hemisphere.” A transcription of this letter is in *The Writings of Thomas Jefferson, Library Edition*, Lipscomb and Bergh, Editors (Issued Under the Auspices of The Thomas Jefferson Memorial Association of the United States, Washington, D.C., 1904), Volume XV, pp. 264-269, quoted passage is on page 269.

102. Donald George Tewksbury, *The Founding of American Colleges and Universities Before the Civil War, with particular reference to the religious influences bearing upon the college movement* (Copyright 1932 by Teacher's College, Columbia University, reprinted in an unabridged edition by Archon Books in 1965), p. 63: In a number of states, “... Presbyterian interests were able to maintain a virtual establishment and monopoly for a time in the field of higher education because of their dominance in local politics.”

attacked Cooper in a published essay.¹⁰³ Jefferson's expectation that the quality of individuals on the board of Visitors would ensure protection against ideological threats to the search for truth could not withstand the strength of influential opposition. To protect the University, the Visitors accepted Cooper's resignation.

Strong sentiments critical of Cooper continued into the twentieth century. In his book, *History of the University of Virginia 1819–1919*, published in 1921, Bruce wrote:

“Cooper, if not openly and frankly an infidel, was so vague and shifty in his religious beliefs that he acknowledged that he himself could not state definitively what they were. He seems to have been a very erratic, if not unsavory character, on the whole, in spite of his indisputable learning and versatile talents. ... He became a friend and disciple of Priestley at an early date on account of their similar relish for scientific researches, for unorthodox religious beliefs, and for a freedom in political affairs that verged on extreme republicanism...”¹⁰⁴

Edgar F. Smith, Professor of Chemistry at the University of Pennsylvania, provides these similarly spirited comments in a chapter on Cooper in his book titled *Chemistry in America, Chapters from the History of Science in the United States*:

“In talents, attainments, and general character, Dr. Cooper was one of the most extraordinary men of the day. In literature and science (political sciences excepted) his views were deep, comprehensive and sound. But, in politics, so thoroughly were his notions infected and perverted by the groundless and wild doctrines of liberty and equality, that his benevolence and humanity alone prevented him from being a Jacobin.”¹⁰⁵

103. Herbert Baxter Adams, *U.S. Bureau of Education. 1888. Circular of Information, No. 1, 1888. Contributions to American Educational History, No. 2: Thomas Jefferson and the University of Virginia* (U. S. Government Printing Office, Washington, D.C., 1888), p. 107. See also the footnote on page 107: “A strong defence [sic] of Dr. Rice and of the Presbyterian party which, under his leadership, opposed the appointment of Dr. Cooper, may be found in the “Correspondence of Jefferson and Cabell,” pp. 234, 235, notes. The spirit of the age is perhaps explanation enough. The Presbyterians were among the dissenters who made a State University possible in distinction from William and Mary College, which was Episcopalian, but they were not prepared for such extremes of dissent as were represented by Dr. Cooper.”

104. Bruce (1921), Volume I, pp. 195 - 196, 197.

105. Edgar F. Smith, Professor of Chemistry, University of Pennsylvania, *Chemistry in America, Chapters from the History of the Science in the United States* (D. Appleton and Company, New York, 1914), Chapter VI (pp. 128 - 146), except appears on p. 140. In text, Smith attributes the passage to the autobiography of Charles Caldwell but does not provide

The Visitors thought that there were highly qualified individuals in the United States who could fill the professorships at the new university, but that these people would not leave their positions to come to Virginia, and that it would be unethical to ask them to do so. Resolved in their belief that less qualified people than these would not be appropriate for their institution, the Visitors sent an agent to Europe to find professors.¹⁰⁶ The original eight professors at the University of Virginia included five from Europe.¹⁰⁷

The evolution of the curriculum at the University of Virginia can be traced through several documents. The earliest evidence of Jefferson's planning for the intellectual structure of a university is found in *A Bill for the Amending of the Constitution of the College of William and Mary* (1779), enacted while he was a member of William and Mary's Board of Visitors. In his autobiography he wrote:

“On the 1st of June, 1779, I was appointed Governor of the Commonwealth and retired from the legislature. Being elected also one of the visitors of William and Mary College, a self-electing body, I effected, during my residence in Williamsburg of that year, a change in the organization of that institution, by abolishing the ... two professorships of divinity and oriental languages, and substituting a professorship of law and police, one of anatomy, medicine, and chemistry, and one of modern languages; and the charter confining us to six professorships, we added the law of nature and nations and the fine arts, to the duties of the moral professor, and natural history to those of the

a citation. Historically, a Jacobin was “a member of a democratic club established in Paris in 1789. The Jacobins were the most radical and ruthless of the political groups formed in the wake of the French Revolution, and in association with Robespierre they instituted the Terror of 1793–1794.” See: 2005. “Jacobin, noun” in Soanes C., Stevenson A., eds. *The Oxford Dictionary of English* (revised edition), Oxford Reference Online. Oxford University Press. UC Santa Cruz. 15 June 2009, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t140.e39846>.

106. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Appendix M, pp. 456 - 487.

107. Wagoner, J. L., Jr. 1986. Honor and Dishonor at Mr. Jefferson's University: The Antebellum Years. *History of Education Quarterly* 26: 155 - 179. pp. 155 - 179. Jennings introduces each of the original eight professors on page 164. In summary, the professors of ancient languages and mathematics were both from Trinity College, Cambridge. The Professors of natural philosophy, modern languages, and of anatomy and medicine were also from Europe. The professors of chemistry, moral philosophy, and law were from the United States.

professor of mathematics and natural philosophy.”¹⁰⁸

In the Bill, Jefferson proposes eight professorships: (1) moral philosophy, the laws of nature and of nations, and fine arts, (2) law, (3) civil and ecclesiastical history, (4) mathematics, (5) anatomy and medicine, (6) natural philosophy and natural history, (7) ancient languages, (8) modern languages. R. Freeman Butts (1910-2010), Professor Emeritus of Education at Teachers College, Columbia University, pointed out that this plan differed from the typical curriculum in the United States at that time by including modern languages, history, and law, and by giving medicine and science the same level of importance as the classics, mathematics, and philosophy. He also notes that theology was absent from the plan except for the study of its history.¹⁰⁹

The subjects to be taught at the University are specified in *An Act Establishing the University*, passed by the General Assembly in 1819.¹¹⁰ The Assembly had contemplated ten professorships; how-

108. Quoted in: Adams, H. B. 1887. *The College of William and Mary: A Contribution to the History of Higher Education, with suggestions for its national promotion*. Washington, D.C.: Circulars of Information. Bureau of Education. No. 1-1887. Government Printing Office. pages 38-39. Adams was Associate Professor of History in the Johns Hopkins University. Jefferson's amendments to the intellectual structure of the College of William and Mary are also mentioned in: Rudolph, F. 1977. *Curriculum: A History of the American Undergraduate Course of Study Since 1636*. San Francisco: Jossey-Bass Publishers. pp. 49-50. Rudolph cites: Honeywell, R. J. 1964. *The Educational Work of Thomas Jefferson*. New York: Russell & Russell, Inc. pp.54-56, and Snow, L. F. 1907. *The College Curriculum in the United States*. (Dissertation submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University): Printed for the author. pp. 73 ff.

See also: Jefferson, T. 1779. Chapter LXXX: "A Bill for the Amending the Constitution of the College of William and Mary" in Ford P. L., ed. *The Works of Thomas Jefferson*, Federal Edition, Volume II (Published in 1904). New York and London: G. P. Putnam's Sons.

109. R. Freeman Butts, *The College Charts its Course: Historical Conceptions and Current Proposals* (McGraw-Hill Book Company; New York, 1939), pp. 88-89.

110. Planning documents connected directly to the history of the University of Virginia span a period of about 24 years: Jefferson's letter to Joseph Priestly (January 18, 1800), Jefferson's letter to Peter Carr (September 7, 1814), "A Bill for Establishing A System of Public Education" (1817), "Report of the Commissioners Appointed to Fix the Site of the University in Virginia, &c." (also known as the Rockfish Gap Report, 1818), and "An Act Establishing the University" (1819). "A Bill for the Amending of the Constitution of the College of William and Mary" (1779) in Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931) 1964), Appendix A, pp. 205-210, esp. p. 209; Jefferson's letter to Joseph Priestly (January 18, 1800), in Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), Appendix C, p. 215; Jefferson's letter to Peter Carr (September 7, 1814), in Honeywell (1964), Appendix E,

ever, the Rector and Visitors of the University later concluded that funding for the university would support only eight. Consequently, when they met in 1824, the Visitors grouped the subjects into eight schools, each under one professor: ¹¹¹

1. The school of ancient languages: Latin, Greek, Hebrew, belles lettres, ancient history, and ancient geography
2. The school of modern languages: French, Spanish, Italian, German, Anglo-Saxon, modern history and geography
3. The school of mathematics: general courses in math, algebra, trigonometry, plane and spherical geometry, mensuration, navigation, conic sections, fluxions or differentials, and military and civil architecture
4. The school of natural philosophy: (physics) the laws and properties of bodies generally, including mechanics, statics, hydrostatics, hydraulics, pneumatics, acoustics, optics, and astronomy
5. The school of natural history: botany, zoology, mineralogy, chemistry, geology, and rural economy (agriculture)
6. The school of anatomy and medicine: anatomy, surgery, the history of the progress and theories of medicine, physiology, pathology, materia medica, and pharmacy
7. The school of moral philosophy: mental science generally, including ideology, general grammar, logic, and ethics
8. The school of law: common and statute law, as well as chancery, feudal, civil, mercatorial, and maritime law, and the laws of nature and nations. Also, the principles of government and political economy.

p. 222; "A Bill for Establishing A System of Public Education" (1817), in Honeywell (1964), Appendix H, p. 233; "Report of the Commissioners Appointed to Fix the Site of the University in Virginia, &c." (also known as the *Rockfish Gap Report*) (1818) in Honeywell (1964), Appendix J, p. 248; and "An Act Establishing the University" (1819) reproduced in *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*, (Richmond, VA, J.W. Randolph, 1856), Appendix K, pp. 447-450.

111. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), "Enactment of the Board of visitors of the University of Virginia, April 7, 1824, Jefferson, Madison, Johnson, Cocke, and Cabell being Present" in Appendix M, "Organization and Government of the University," (*Library Ed.*, XIX, 433-436), pp. 269-270. See also, *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. Jefferson, Thomas, Cabell, Joseph C., edited by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), [No. VI] "To the President and Directors of the Literary Fund" a report by the Visitors dated October 5, 1824, in Appendix M, pp. 481, that explains why the Visitors defined only eight professorships when ten pavilions had been constructed.

There are at least three other areas of study that are mentioned in earlier University planning documents, the *Rockfish Gap Report* in particular, that are not found in the Assembly's Act to establish the University and are not included in these eight schools. The *Rockfish Gap Report* suggested the inclusion of "the arts which embellish life"—courses in music, dancing and drawing. While the *Report* suggested the University might provide rooms to accommodate instruction in the arts by "accessory teachers, who will be paid by the individuals employing them," the arts were not included as part of the university's core intellectual structure.¹¹² Jefferson's solution to the omission of the arts was to convince the Visitors to include military and civil architecture within the school of mathematics.¹¹³ The study of architecture that uses examples provided by the university's buildings links the intellectual and physical structures. The importance of math to architectural design and engineering provides an important interdisciplinary connection between math and the visual arts.

It was also suggested in the *Rockfish Gap Report* that students could pursue gymnastics for recreation, and the Assembly omitted this subject as well. In addition, the *Report* states that a professor of divinity was not proposed because it would not be "in conformity with the principles of our Constitution." Recall that the *Statute for Religious Freedom* adopted by the General Assembly in 1786 that we discussed earlier in this chapter is part of the Constitution of the Commonwealth of Virginia. Jefferson thought that the subject of ethics, which is included in the school of moral philosophy, would provide a common foundation agreeable to all religions, and that the different religious denominations could provide separate instruction "in their own peculiar tenets" outside the university.¹¹⁴

112. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), "Report of the Commissioners Appointed to Fix the Site of the University in Virginia, &c." (also known as the Rockfish Gap Report) (1818), Appendix J, pp. 248-260, esp. pp. 256-257.

113. Bruce, Philip Alexander. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man* (The Macmillan Company, New York, 1920-1922), Volume I, p. 242.

114. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931, reissued 1964), "Report of the Commissioners Appointed to Fix the Site of the University in Virginia, &c." (also known as the Rockfish Gap Report) (1818), Appendix

“After stating the constitutional reasons against a public establishment of any religious instruction, we suggest the expediency of encouraging the different religious sects to establish, each for itself, a professorship of their own tenets on the confines of the university, so near as that their students may attend the lectures there and have the free use of our library and every other accommodation we can give them; preserving, however, their independence of us and of each other. This fills the chasm objected to ours, as a defect in an institution professing to give instruction in all useful sciences... And by bringing the sects together, and mixing them with the mass of other students, we shall soften their asperities, liberalize and neutralize their prejudices, and make the general religion a religion of peace, reason, and morality.”
—Thomas Jefferson to Thomas Cooper, 1822.¹¹⁵

The Library

The library at the University of Virginia, an integral part of the university’s intellectual structure, was housed in the top floor of the circular Rotunda building under the dome. The books were shelved in alcoves around the perimeter of the room and were lit by windows. The university’s collection of books was the recipient of as much thoughtful research and planning, as were the institution’s physical and administrative structures. Jefferson’s attention to the future library began at least as early as 1814, prior to the founding of Central College. He considered acquiring Dr. Priestley’s book collection, as well as contributing his own collection of books that resided at his home at Monticello. The university had received several donations of books before the construction of the university had commenced. In 1824-25, Virginia’s General Assembly appropriated fifty thousand dollars toward the purchase of books for the university library. Books were ordered from Paris, London, and Germany and arrived before the Rotunda was completed.¹¹⁶ Jefferson’s selected books met specific guidelines: “1) books of great reputation which were too costly for the average purse; 2) the most authoritative volumes

J, pp. 248-260, esp. p. 256.

115. *The Writings of Thomas Jefferson, (Memorial Edition)* Lipscomb and Bergh, editors, Vol. 15, p. 405. <http://etext.virginia.edu/jefferson/quotations/jeffcont.htm>. “40. Publicly Supported Education.” Accessed February 20, 2008.

116. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Volume II, pp. 37-42, 185-197.

in exposition of each science; 3) tracts marked by special merit; 4) books that were valuable because written in foreign languages; 5) several editions of the same classic, which were esteemed each for its own excellence; 6) translations of superior elegance in themselves, or opening to readers works in an abstruse tongue; 7) books that were valuable as relating to some subject that had been but little treated.”¹¹⁷

Jefferson developed a system of organization for his own library that he recommended for the university’s library; however, the final arrangement of books in the library followed a modified version of Jefferson’s system. Jefferson’s categories for the arrangement of books were adapted from Book Two of Francis Bacon’s *The Advancement of Learning*.¹¹⁸ On the importance of books and universities, Bacon wrote:

“3. The works or acts of merit towards learning are conversant about three objects: the places of learning, the books of learning, and the persons of the learned. For as water, whether it be the dew of heaven, or the springs of the earth, doth scatter and leese itself in the ground, except it be collected into some receptacle, where it may by union comfort and sustain itself: and for that cause the industry of man hath made and framed spring-heads, conduits, cisterns, and pools, which men have accustomed likewise to beautify and adorn with accomplishments of magnificence and state, as well as of use and necessity: so this excellent liquor of knowledge, whether it descend from divine inspiration, or spring from human sense, would soon perish and vanish to oblivion, if it were not preserved in books, traditions, conferences, and places appointed, as universities, colleges, and schools, for the receipt and comforting of the same.”¹¹⁹

Bacon had organized all knowledge into three categories: Memory, Reason, and Imagination. Jefferson renamed Bacon’s three categories as History, Philosophy, and the Fine Arts, and further divided these three categories into over forty subcategories. History was divided into the categories Civil and Physical, Philosophy into Mathematical (Arithmetic and Geometry) and Moral. Under the subcategory Moral, Jefferson placed

117. *Ibid.* Volume II, pp. 186.

118. Library of Congress. 1989. *Introduction to Thomas Jefferson’s Library: A Catalog with the Entries in His Own Order*. Edited by James Gilreath and Douglas L. Wilson: Library of Congress. http://catdir.loc.gov/catdir/toc/becites/main/jefferson/88607928_intro.html (Accessed: June 27, 2009).

119. Bacon, F. 1605. *The Advancement of Learning* [The Two Books of Francis Bacon, of the Proficiency and Advancement of Learning, Divine and Human]: Edited by William Aldis Wright. Second Edition. Clarendon Press Series. Oxford at the Clarendon Press (1876). pp. 76-77.

Ethics, Religion, and eight categories of Law (Nature and Nations, Equity, Common, Merchant, Maritime, Ecclesiastical, Foreign, and Civil Polity). Civil History was subdivided into Ancient, Modern and Foreign, British, American, and Ecclesiastical. Physical History included these subjects: Pure Physics, Agricultural, Chemical, Anatomy and Surgery, Medical, Biology, Botany, Mineralogy, Technology, Astronomy, Geography. The Fine Arts included Architecture; Gardening, Painting, Sculpture, Music; Epic, Romantic, Pastoral, and Didactic Poetry; Tragedy, Comedy, Dialogue and Epistolary; Rhetoric; Criticism in Theory; Bibliography; and Philology.¹²⁰

The first library regulations at the University of Virginia, drafted in 1825, required the librarian to be available for only one hour a week to distribute and receive books. The faculty enjoyed nearly unrestricted use of the books, but students were limited to three books at a time, and these had to have been pre-approved by a professor. The first person to be appointed to the position of Librarian of the University was employed in that position for only nine months. The next librarian, William Wertenbaker, was affirmed by the Board of Visitors in 1826 and remained in that position for more than fifty years.¹²¹

The Elective System

In 1823, about two years before the University of Virginia opened to students, Jefferson wrote to a colleague about the elective system of university studies:

“I am not fully informed of the practices at Harvard, but there is one from which we shall certainly vary, although it has been copied, I believe by nearly every college and academy in the United States. That is, the holding of students all to one prescribed course of reading, and disallowing exclusive application of those branches only which are to qualify them for the particular vocations to which they are destined. We shall, on the contrary, allow them uncontrolled choice in the lectures they shall choose to attend...”
—Thomas Jefferson, 1823¹²²

120. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Volume II, p. 187. On pages 187-188, Bruce lists the numbers of books for some of the library categories. The early collection included over 400 books on the classics, 367 in jurisprudence, with modern history following at over 300 volumes.

121. *ibid.* Volume II, pp. 197-204.

122. Ticknor, a graduate of Dartmouth College, declined Jefferson's offer of the

In 1780, the year following Jefferson's proposal to amend the curriculum at the College of William and Mary, the president of that college wrote that "The Students have ye Liberty of attending whom they please, and in what order they please, of all ye diffr. Lectures in a term if they think proper."¹²³ Forty-six years later, this same freedom to choose a course of study was available to students at the University of Virginia. Butts says that the elective system appeared at the same time that another fundamental change occurred in the university: the shift from a rigid curriculum to train ministers, to one designed to prepare students for a variety of leadership roles in a democratic society.¹²⁴

It's possible that Jefferson was influenced by the intellectual structure of the University of Edinburgh. In about 1708, Edinburgh established an intellectual structure within which professors taught only one or two subjects. This professorship system replaced the "regency system" in which one professor (regent) taught all required subjects to a cohort of students as they progressed through four years of college.¹²⁵ As the depth and breadth of knowledge required to teach a subject expanded, the "regent" became fixed to a particular subject rather than teaching all subjects. At Edinburgh, the emphasis placed on teaching and learning overshadowed the importance of graduation,¹²⁶ and

"... as soon as graduation fell into disregard no such thing as curriculum

professorship of ethics, belles lettres, and fine arts at the University of Virginia, for a position at Harvard. While at Harvard, Ticknor instituted a system of study that allowed students to plan individual courses of studies. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., 1964), pp. 130-133. Excerpt from letter appears on page 130. Honeywell cites *The Writings of Thomas Jefferson, Library Edition*, Andrew A. Lipscomb and Albert Ellery Bergh, editors. Issued under the auspices of The Thomas Jefferson Memorial Association, Washington, D.C., 1904, "Thomas Jefferson to George Ticknor, July 16, 1823", Vol. XV, p. 455.

123. Quoted in Butts, R. F. 1939. *The College Charts its Course: Historical Conceptions and Current Proposals*. New York: McGraw-Hill Book Company. p. 90. R. Freeman Butts' source for the quote is Louis F. Snow, *The College Curriculum in the United States* (Teachers College, Columbia University, New York, 1907), pp. 74-75.

124. *ibid.* p. 91. For greater depth on Jefferson's role in instituting the elective system in the United States, see Chapter VI, "First Experiments with the Elective System," subhead, "Jefferson and his Ideal of Democracy", pp. 88-97.

125. See page 18, and footnote in: Sloan, D. 1971. *The Scottish Enlightenment and the American College Ideal*: Teachers College Press. Teachers College, Columbia University.

126. R. Freeman Butts, *The College Charts its Course: Historical Conceptions and Current Proposals* (McGraw-Hill Book Company; New York, 1939), pp. 53, 92.

could really continue to exist. The main subjects of Arts teaching were there but each student attended such classes as he or his friends might think advisable.”¹²⁷

Several months after the University of Virginia opened, the first evidence of an elective system appeared in university regulations published by the Board of Visitors on October 4, 1825:

“Each of the schools of the University shall be held two hours of every other day of the week; and that every student may be enabled to attend those of his choice, let their sessions be so arranged, as to days and hours, that no two of them shall be holden at the same time ... Every student shall be free to attend the schools of his choice, and no other than he chooses.”¹²⁸

Professor John B. Minor says that in about 1856 there were nine separate schools, or departments, at the University of Virginia, each controlled by one or more instructors and assistants. The students attended as many schools as they pleased, with a minimum requirement of no less than three. There was no set curriculum that all students were required to complete. An important aspect of this system, according to Professor Minor, is that each department of instruction operated independently of the others, setting their own standards for graduation requirements and the advancement of curriculum. Each school conferred its own separate degree.¹²⁹

127. Quote from Alexander Grant, *The Story of the University of Edinburgh* (Longmans, Green & Company, London, 1884), Vol. IV, p. 312. Quoted in R. Freeman Butts, *The College Charts its Course: Historical Conceptions and Current Proposals* (McGraw-Hill Book Company; New York, 1939), p. 92.

128. Quoted in R. Freeman Butts, *The College Charts its Course: Historical Conceptions and Current Proposals* (McGraw-Hill Book Company; New York, 1939), p. 94. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Harvard University Press, Cambridge, 1931), p. 270. Butts muses that this is likely one of the first examples of the modern “timetables” (his term), or what is now called a “schedule of classes” used by universities to organize hundreds of classes. In chronological relation to the introduction of the elective system at the University of Virginia in 1825, “the elective system is indelibly associated with Charles W. Eliot, who instituted it and defended it during his forty-year presidency of Harvard (1869-1909).” See: Geiger, R. L. 1986. *To Advance Knowledge: The Growth of American Research Universities, 1900-1940*. New York and Oxford: Oxford University Press, p. 5. The origins of the elective system are also discussed in Phillips, D. E. 1901. “The Elective System in American Education”. *The Pedagogical Seminary, A Quarterly: International Record of Educational Literature, Institutions and Progress*. (Edited by G. Stanley Hall, President of Clark University and Professor of Psychology and Education) VIII: 206-230.

129. Jefferson, Thomas, Cabell, Joseph C., *The Early History of the University of Virginia*,

Historian Philip Alexander Bruce said that the ascendancy of the physical and biological sciences in the curriculum of the American university is linked to the spread of the elective system. He suggests that the desirable vocational practicality of the sciences made them a more popular choice with students than the traditional classical course of studies.¹³⁰

A student who passed the examination of one of the University's separate schools was recognized as a "Graduate of the University of Virginia." The Doctorate was reserved for advanced graduates of the university, either academic or professional. Graduates in the School of Medicine, for example, received the doctorate degree. The University did not give honorary degrees.¹³¹ In 1824, prior to the opening of the University, the Board of Visitors adopted guidelines for honorary distinctions to be awarded to those who passed examinations:

"At these examinations shall be given, to the highly meritorious only, and by the vote of a majority of the professors, diplomas, or premiums of medals or books, to be provided by the University, to wit: Diplomas to those of the highest qualifications, medals of more or less value to those of the second grade of acquisition, and books of more or less value to those of a third. These diplomas shall be of two degrees; the highest of doctor, the second of graduate. And the diploma of each shall express the particular school or schools in which the candidate shall have been declared eminent, and shall be subscribed by the particular professors approving it."¹³²

In addition to the requirement that students attend a minimum of three schools and pass the exams of each to obtain a diploma, the Visitors also affirmed that a student must pass an examination in Latin, and be able to read the classics in Latin to be eligible to receive a diploma. The diploma would also recognize those students who were proficient in Greek. The Visitors regarded proficiency in these two ancient languages as the foun-

as contained in the letters of Thomas Jefferson and Joseph C. Cabell, edited anonymously by Nathaniel Francis Cabell, (J. W. Randolph; Richmond, Virginia, 1856), Appendix Q, pp. 519-522

130. Bruce, Philip Alexander. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man* (The Macmillan Company, New York, 1920-1922), Volume II, pp. 97-98.

131. Honeywell, p. 132. Bruce, Vol. II, p. 135-137.

132. "Regulations Adopted by the Board of Visitors of the University of Virginia, October 4, 1824, Jefferson, Madison, Breckenridge, Cocke, Loyall, and Cabell Being Present (*Library Ed.*, XIX, 439-451)," in Appendix M, pp. 270-276, Honeywell (1964).

dation of a “good education” and essential to a “well-educated man.”¹³³

The University of Virginia provided a robust model for the future establishment of the nation’s system of public research universities. Based on the administrative model for a public university provided by the short-lived Dartmouth University, the governance structure of the University of Virginia was integrated with the state’s civil government. A reliable source of public funding, combined with the *Virginia Statute for Religious Freedom*, secured independence from the constraints of religion and directed the university’s resources toward the needs of the state rather than those of the Church. In addition, members of the Faculty at the University of Virginia were given a role in university governance, which provided an underpinning for the system of shared governance to be established at the University of California in the twentieth century. The physical structure of the University of Virginia—linked pavilions, each housing a specific academic discipline—was an essential aspect of the elective system, which provided students with a choice of studies that would lead to a variety of leadership roles. The physical and intellectual structures introduced at the University of Virginia also provided for the future expansion and advancement of individual branches of knowledge to meet society’s needs.

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133. “Regulations Adopted by the Board of Visitors of the University of Virginia, October 4, 1824, Jefferson, Madison, Breckenridge, Cocke, Loyall, and Cabell Being Present” (*Library Ed.*, XIX, 439-451), in Appendix M, pp. 270-276, Honeywell (1964).

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CHAPTER 5

The Yale Report on Curriculum, 1828

“The Yale professors ... were joined by men of profound religious conviction who were disturbed by the suggestion of the reformers that colleges should prepare men to meet the needs of this world, rather than the needs of the next world.”
—Frederick Rudolph, 1962 ¹

“When an University has been doing useless things for a long time, it appears at first degrading to them to be useful. A set of lectures upon political economy would be discouraged in Oxford, probably despised, probably not permitted. To discuss enclosure of commons, and to dwell upon imports and exports, —to come so near to common life, would seem to be undignified and contemptible.”
—*Edinburgh Review*, 1809 ²

In the early nineteenth century, at the beginning of the industrial revolution—an era of increasing knowledge—colleges were under pressure to add new courses to respond to society’s growing needs. The opening of the University of Virginia introduced the elective system to the intellectual structure of institutions of higher education in the United States. At the same time, a large number of competing denominational colleges were established. William T. Foster, President of Reed College, introduced his

1. Rudolph, F. 1962. *The American College and University: A History*. New York: Alfred A. Knopf. p. 135.

2. “Essays on Professional Education. By R. L. Edgeworth, Esq. F.R.S. &c.” *Edinburgh Review*, 15:29 (1809: Oct.) p. 40-53. The quoted text is an excerpt from page 51 of a book review written by the editors of the *Edinburgh Review*. The title of the reviewed book, *Essays on Professional Education*, was written by R. L. Edgeworth, Esq. F.R.S. &c. (London, 1809). The second edition of Edgeworth’s book was available for full view on Google Books in 2008. This source is also quoted by Jurgen Herbst in “The Yale Report of 1828”, *International Journal of the Classical Tradition*, Vol. 11, No. 2 (December 2004), p. 225. Herbst discusses the 1809 attack on the classical languages taught at Oxford University and Professor Edward Copleston’s 1810 *Reply to the Calumnies of the Edinburgh Review Against Oxford*.

book about college curriculum³ with the observation that “the chief movement in the history of the college curriculum in America is the breakdown of prescribed programs through the evolution of the Elective System.”⁴

In 1827, a member of the Yale College Corporation asked his colleagues to consider changing Yale’s curriculum by discontinuing the study of Latin and Greek—the “dead” or ancient languages—and replacing them with other more practical studies. A committee was assembled to consider the proposed changes and the Yale Report of 1828 was published a year later.⁵

The Yale Report of 1828 consists of two reports from the faculty and a report from the committee. The first faculty report, written by Yale President Jeremiah Day, professor of mathematics and natural philosophy, presents a summary of the college’s educational plan and defends Yale’s prescribed course of studies.

“The two great points to be gained in intellectual culture, are the *discipline* and the *furniture* of the mind; expanding its powers, and storing it with knowledge. The former of these is, perhaps, the more important of the two. A commanding object, therefore, in a collegiate course, should be, to call into daily and vigorous exercise the faculties of the student. Those branches of study should be prescribed, and those modes of instruction adopted, which are best calculated to teach the art of fixing the attention, directing the train of thought, analyzing a subject proposed for investigation; following, with accurate discrimination, the course of argument; balancing nicely the evidence presented to the judgment; awakening, elevating, and controlling the imagination; arranging, with skill, the treasures which memory gathers; rousing and guiding the powers of genius.”⁶

3. A curriculum (plural curricula) is a course of study or training at a school or university. *The Oxford English Dictionary*. 1989 2nd ed.-b. “curriculum”: OED Online. Oxford University Press. 31 Dec. 2006, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50056109>.

4. Foster, W. T. 1911. *Administration of the College Curriculum*. Boston: Houghton Mifflin Company. Preface, page v.

5. There are two versions of *The Yale Report of 1828*, which was first published in 1828 as *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. The *Report* was subsequently published as an article titled “Original Papers in Relation to a Course of Liberal Education,” by Benjamin Silliman, Yale’s professor of chemistry and mineralogy, in his publication *The American Journal of Science and Arts*, Vol. 15, Issue 2 (January 2, 1829), pp. 297-351. The version of the *Report* published as “Original Papers” was widely read. In this chapter, we refer to the page numbers in the original 1828 version, hereafter referred to as *Report* in our text and footnotes.

6. *Report*, pp. 6-7. Italics in original.

Mental discipline, affirmed as the main goal of education, was thought to be more important than the particular subjects taught at Yale. A popular curriculum theory in the nineteenth century, mental discipline is based on the idea that the powers of the mind can be developed through the study of particular subjects. It was thought that some subjects, and the ways that these subjects were studied, were better than others to meet this educational goal.⁷

The Report's phrase "faculties of the student" refers to faculty psychology, a pedagogical theory. Faculty psychology has its origins in Western philosophy's endeavors to define how the human mind works. The theory held that the mind was divided into separate powers, called faculties, such as memory, perception, reason, will, imagination, and intelligence.⁸ The origins of the theory of faculty psychology are found in philosophy and the history of psychology. The Oxford English Dictionary defines the term 'faculty' as "an inherent power or property of the body or of one of its organs; a physical capability or function." A 'faculty' is also "one of the several 'powers' of the mind, variously enumerated by psychologists: e.g. the will, the reason, memory, etc."⁹

7. Kliebard, H. M. 1982. "Curriculum Theory as Metaphor". *Theory into Practice* 21: 11-17. Herbert M. Kliebard is Professor Emeritus in the School of Education, Department of Curriculum and Instruction, at the University of Wisconsin-Madison.

8. Richard Langton Gregory, Professor Emeritus of Neuropsychology at the University of Bristol, in his article in *The Oxford Companion to the Mind*, says that faculty psychology "was the brain-child of the Scottish philosopher Thomas Reid (1710-1796)," and was "central to the 'Scottish School' through the 18th and 19th centuries."

Gregory, R. L. 1987. "faculty psychology" in Gregory R. L., ed. *The Oxford Companion to the Mind*, Oxford University Press. Oxford Reference Online. UC Santa Cruz. 10 April 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t159.e331>.

Andrew M. Colman, Professor of Psychology at the University of Leicester, says that "the most influential figure in the development of this approach [faculty psychology] was the German philosopher and mathematician Christian Wolff (1679-1754). Colman, A. M. 2006. "faculty psychology n." *A Dictionary of Psychology*: Oxford Reference Online. Oxford University Press. UC Santa Cruz. 12 April 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t87.e3033>. See also: Blackburn, S. 1996. "faculty psychology" *The Oxford Dictionary of Philosophy*: Oxford Reference Online. Oxford University Press. UC Santa Cruz. 10 April 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t98.e893>. 2008. "pedagogy" *Encyclopædia Britannica*, Encyclopædia Britannica Online. 11 Apr. 2008, <http://search.eb.com/eb/article-39083>.

9. *The Oxford English Dictionary*. Second edition, 1989. "faculty, n" Online version March 2011. <http://www.oed.com:80/Entry/67547>. Accessed 10 June 2011. Earlier version first published in *New English Dictionary*, 1894. Sense "3. An inherent power or property of the body or of one of its organs; a physical capability or function." Sense "4. One of the several

In relation to the university, a faculty is defined as “one of the departments of learning at a University,” or the “whole teaching staff of a college, university, or school.”¹⁰

In the seventeenth and eighteenth century, ‘psychology’ referred to the philosophical study of the human soul or spirit. In the eighteenth century, the term ‘psychology’ began to be used to denote the “scientific study of the nature, functioning, and development of the human mind, including the faculties of reason, emotion, perception, and communication.”¹¹

Many decades after the Yale Report was published, William James (1842-1910), Professor of Psychology in Harvard University, challenged faculty psychology in his textbook *The Principles of Psychology* (1890).¹² His book is an intermingling of psychology, philosophy, and physiology. It opens with a brief definition of psychology that includes a description of faculty psychology:

“Psychology is the Science of Mental Life, both of its phenomena and of their conditions. The phenomena are such things as we call feelings, desires, cognitions, reasonings, decisions, and the like; and, superficially considered, their variety and complexity is such as to leave a chaotic impression on the observer. The most natural and consequently the earliest way of unifying the material was, first, to classify it as well as might be, and secondly, to affiliate the diverse mental modes thus found, upon a simple entity, the personal Soul, of which they are taken to be so many facultative manifestations. Now, for instance, the Soul manifests

‘powers’ of the mind, variously enumerated by psychologists: e.g. the will, the reason, memory, etc.”

10. Ibid. Sense “7. spec. One of the departments of learning at a University. Hence Dean of a Faculty.” Sense “9. a. The whole body of Masters and Doctors, sometimes including also the students, in any one of the studies, Theology, Law, Medicine, Arts.”

11. —. Draft Revision Mar. 2008. ‘psychology, n.’ OED Online. Oxford University Press. 29 April 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50191636>.

12. “In 1878, James agreed to write a psychology textbook for the American publisher Henry Holt, but it took him twelve years to produce the manuscript, and when he did he described it to Holt as “a loathsome, distended, tumefied, bloated, dropsical mass, testifying to nothing but two facts: 1st, that there is no such thing as a science of psychology, and 2nd, that W. J. is an incapable” (*The Letters of William James*, ed. Henry James. (Boston: Little, Brown, 1926, pp. 393-4). Nevertheless, this thousand page volume of psychology, physiology and philosophy has proved to be James’s masterwork, containing early statements of his main philosophical ideas in extraordinarily rich chapters on “The Stream of Thought,” “The Consciousness of Self,” “Emotion,” “Will,” and many other topics.” Quote from: Goodman, R. B. 2007. “William James”. *The Stanford Encyclopedia of Philosophy* (Summer 2007 Edition). Edward N. Zalta (ed.). 2008; <http://plato.stanford.edu/archives/sum2007/entries/james/>), *ibid.*

its faculty of Memory, now of Reasoning, now of Volition, or again its Imagination or its Appetite. This is the orthodox 'spiritualistic' theory of scholasticism and of common-sense." ¹³

James argued that the problem with faculty psychology was that it treated an abstraction as an independent entity that actually exists and is the cause of its own actions. This argument became known as the "Fallacy of the Faculty Psychology." ¹⁴

Any particular cognition, for example, or recollection, is accounted for on the soul-theory by being referred to the spiritual faculties of Cognition or of Memory. These faculties themselves are thought of as absolute properties of the soul; that is, to take the case of memory, no reason is given why we should remember a fact as it happened, except that so to remember it constitutes the essence of our Recollective Power." ¹⁵

It is not the intent of this chapter to provide an exhaustive history of the contributions of philosophy, religion, and psychology to nineteenth-century faculty psychology. Our review of this history provides context for the Yale Report's reference to faculty psychology, and the Report's role in the evolution of the university's intellectual structure. Twenty-first-century neuropsychologists and cognitive science scholars continue to pursue research into the structure and function of the human brain, and debate questions about the localization of cognitive processes and interactions between regions of the brain. ¹⁶

The Yale Report linked faculty psychology to the classical curriculum and explained that these studies were best for achieving mental discipline and developing the faculties of the mind. Faculty psychology, which was widely accepted at the time by institutions other than

13. James, W. 1918. *The Principles of Psychology* [first published in 1890]. New York: Henry Holt and Company. Page 1.

14. For more detail about the history of the "Fallacy of Faculty Psychology" see: Kosits, R. D. 2004. "Of Faculties, Fallacies, and Freedom: Dilemma and Irony in the Secularization of American Psychology". *History of Psychology* 7: 340-366.

15. James, W. 1918. *The Principles of Psychology* [first published in 1890]. New York: Henry Holt and Company. Page 2.

16. Uttal, W. R. 2001. *The New Phrenology: The Limits of Localizing Cognitive Processes in the Brain*. Cambridge, Massachusetts: The MIT Press. Uttal provides a history of faculty psychology and phrenology in Chapter 3, "Is a Taxonomy or Even a Lexicon of Cognitive Processes Possible," pp. 89-146. Landreth, A., Richardson, R. C. 2004. "Localization and the new phrenology: a new review essay on William Uttal's *The new phrenology*". *Philosophical Psychology* 17: 107-123.

Yale, was introduced to America by the Scots; however, when the Yale Report was published, Scottish Universities had since abandoned classical requirements.¹⁷ Michael Pak argues that the authors of the Yale Report presented a unique interpretation of faculty psychology as part of their defense of the classical curriculum. Faculty psychology by itself did not require or advocate any particular curriculum. It promoted the idea that “education should encourage a balanced development of the inborn mental faculties of students”; nevertheless, the authors of the Yale Report assert that Greek and Latin would be most effective for the development of these faculties.¹⁸

“... the study of the classics ... forms the most effectual discipline of the mental faculties... The range of classical study extends from the elements of language, to the most difficult questions arising from literary research and criticism. Every faculty of the mind is employed, not only the memory, judgment, and reasoning powers, but the taste and fancy are occupied and improved.”¹⁹

Like Dartmouth College, Yale had a prescribed traditional liberal arts curriculum that all students were required to complete to earn a degree. In 1828, Yale’s curriculum was dominated by Greek and Latin and the classic literature of these languages, including the New Testament. Greek and Latin were required study for students during their first three years at Yale, with additional courses in mathematics, history, geography, natural philosophy, English grammar and rhetoric. Senior-year courses included moral philosophy, metaphysics, English composition, belles-lettres,²⁰ and lectures on the basic principles of chemistry and other sci-

17. Pak, M. S. 2008. “The Yale Report of 1828: A New Reading and New Implications”. *History of Education Quarterly* 48: 30-57. Michael S. Pak cites George Elder Davie, *The Democratic Intellect: Scotland and Her Universities in the Nineteenth Century* (Edinburgh: Edinburgh University Press, 1961), pp. xi-xx, and 3-102. Pak, p. 52: “As George Elder Davie has shown, the Scots considered the emphasis on the classical languages an *English* inanity, and cherished their own non-classical university curriculum as a high point of their cultural and intellectual independence.”

18. *Ibid.* Pak discusses faculty psychology on pages 48-53, and his definition of faculty psychology appears on page 51.

19. *Report*, p. 36.

20. 1996. “belles-lettres” in Baldick C., ed. *The Concise Oxford Dictionary of Literary Terms*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 10 April 2008 <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t56.e105>>.

ences. Yale's students learned these subjects by memorizing materials in textbooks and reciting what they had memorized in the presence of tutors.²¹ The Yale Report explains that daily recitations based on assigned readings in textbooks define the student's academic responsibility and "secure his steady and earnest efforts."²² Teaching methods are part of a university's intellectual structure and debates about the roles of memorization have been going on for a long time – hundreds of years. In the early nineteenth century the primary objectives of higher education were the transmission and preservation of existing knowledge. These goals did not require teaching methods that supported methods of inquiry or criticism that would assist in the production of new knowledge.

In today's university, the memorization and recitation method of teaching and learning appears as the multiple choice exam. It is the simplest, least expensive, and most efficient method of teaching, evaluating, and ranking students. But, unlike the written essay, the multiple choice exam, which requires the memorization and recitation of isolated bits of information, does not ask the student to demonstrate a full understanding of the subject being studied. Nor does it require the rigorous and difficult work of inquiry (which is essential to the advancement of knowledge), reasoning, and argument. David T. Conley, Professor of Educational Policy and Leadership in the College of Education at the University of Oregon, identifies a set of key academic

Belles-lettres is "The French term for 'fine writing', originally used (as in 'fine art') to distinguish artistic literature from scientific or philosophical writing. Since the 19th century, though, the term has more often been used dismissively to denote a category of elegant essay-writing and lightweight literary chatter, of which much was published in Britain in the late 19th and early 20th centuries." The OED defines the term as "Elegant or polite literature or literary studies. A vaguely-used term, formerly taken sometimes in the wide sense of 'the humanities,' *literæ humaniores*; sometimes in the exact sense in which we now use 'literature'; in the latter use it has come down to the present time, but it is now generally applied (when used at all) to the lighter branches of literature or the *æsthetics* of literary study. *The Oxford English Dictionary*. 1989 2nd ed.-a. 'belles-lettres, n. pl.': OED Online. Oxford University Press. 2 Jan. 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50019976>.

21. Herbst, J. 2004. "The Yale Report of 1828". *International Journal of the Classical Tradition* 11: 213-231. pp. 217, 219.
1828. *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. See pages 10-11, 18-19.

22. 1828. *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. Page 10.

methods for learning. These methods, or approaches to the acquisition of knowledge, include many of the following: intellectual openness, or questioning the views of others; inquisitiveness, or active inquiry; analysis—the evaluation of data for validity and credibility; reasoning and argumentation to defend a conclusion; the interpretation of conflicting descriptions; and problem solving. Central to all of these methods of critical thinking are research and writing skills.²³ Tony Wagner, Co-Director of the of the Change Leadership Group at the Harvard Graduate School of Education, says that if a teacher asks questions that require only factual recall, “then students are probably not being asked to do very much in the way of reasoning, analysis, or hypothesizing—and the primary skill being taught is memorization.”²⁴

At the time the Report was published, Yale’s faculty had not accepted an elective system like that introduced at the University of Virginia.²⁵

“But why, it is asked, should all the students in a college be required to tread in the same steps? Why should not each one be allowed to select those branches of study which are most to his taste, which are best adapted to his peculiar talents, and which are most nearly connected with his intended profession? To this we answer, that our prescribed course contains those subjects only which ought to be understood, as we think, by every one who aims at a thorough education. They are not the peculiarities of any profession or art. These are to be learned in the professional and practical schools. But the principles of science, are the common foundation of all high intellectual attainments. ... in a college, all should be instructed in those branches of knowledge, of which no one destined to the higher walks of life ought to be ignorant. What subject which is now studied here, could be set aside, without evidently marring the system.”²⁶

23. Conley, D. T. 2007. *Redefining College Readiness, Volume 5* (Prepared for the Bill & Melinda Gates Foundation, March 2007). Eugene, Oregon: Educational Policy Improvement Center (EPIC). <http://www.epiconline.org>. pp. 9-10.

24. Wagner, T. 2008. *The Global Achievement Gap: Why Even Our Best Schools Don't Teach the New Survival Skills Our Children Need—And What We Can Do About It*. New York: Basic Books. p. 53.

25. Herbst, J. 2004. “The Yale Report of 1828”. *International Journal of the Classical Tradition* 11: 213-231. p. 223. The University of Virginia did not require all students to have a broad background in all disciplines; instead, students chose three schools of study from the university’s offerings. However, an early University of Virginia planning document indicates that Greek and Latin were required for graduation. Jefferson was not opposed to the study of the classical languages.

26. *Report*, pp. 18-19.

The Report also states that Yale's undergraduate course of studies "is not designed to include professional studies," but it provided a foundation for professional and practical studies, such as those required for law, medicine, and theology, that could be pursued later at other institutions. Courses in business, engineering, and agriculture also were intentionally excluded from Yale's curriculum. It was thought that knowledge in these areas did not require a college education and could be acquired in the shop, factory, and field.²⁷

The second faculty report, written by Classics Professor James L. Kingsley, defines a liberal education and discusses the importance of retaining the study of the Greek and Latin classical literature in Yale's prescribed curriculum. The classics are the original sources for the ideas presented in modern literature, the Yale Report claims, are the foundation "of a correct taste," provide "the most effectual discipline of the mental faculties," and familiarize "the mind with the structure of language, and the meaning of words and phrases." The classics provide preparation for professional studies in divinity, law, and medicine.²⁸ Yale's use of the phrase "correct taste," is a reference to the ancient classic literature of Greek and Roman writers as the standard of excellence.²⁹ Jürgen Herbst describes Yale's educational mission in the nineteenth century as a "traditional task of so educating society's leaders that they might safeguard society's internal cohesion." A diploma from Yale provided society's elite with a "certificate of qualification and a passport to preferment."³⁰

The final and third section of the Report, submitted by the committee, was written by Connecticut Governor Gideon Tomlinson, an *ex officio* Fellow of the Yale Corporation (1827-1831) who graduated from Yale in 1802. This section confirms the points presented in the first two parts of the Report and states in conclusion that "it is inexpedient so to alter the regular course of instruction, at this college, as to leave out of

27. *Report*, pp. 14-16. Quote appears on p. 14.

28. *Report*, p. 36.

29. 1828. *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. Pages 8, 35-38.

30. Herbst, J. 2004. "The Yale Report of 1828". *International Journal of the Classical Tradition* 11: 213-231. Pages 216, 218.

the same, the study of the ancient languages.”³¹

The importance of the Yale Report to the evolution of the intellectual structure of institutions of higher education in the United States is reflected in the numerous books and papers in which it is quoted and discussed.³² Beginning in the early twentieth century, discussions about the Report appear in histories of American higher education. Commentary and criticism is directed primarily to the Report’s central question regarding the importance of Greek and Latin—the “dead languages”—in the curriculum of the nineteenth-century college in the United States. These discussions extend to interpretations of the Report’s tangential themes concerning the role of the college in society; instructional methods, including faculty psychology; the effect of the Report on other institutions of higher education; competition between institutions and public expectations of higher education; the relation of nineteenth-century college curriculum to Renaissance humanism, and the rate at which colleges should change their curriculum in response to the expansion of knowledge.

Many late twentieth-century historians have questioned traditional scholarship and reinterpreted the role of the antebellum college in society and the Yale Report’s defense of the classical curriculum.³³ Twenty-first century discussion of the Yale Report includes

31. 1828. *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. Page 56.

32. The following papers and one book provide background on the Yale Report and include extensive bibliographic footnotes: Urofsky, M. I. 1965. “Reforms and Response: The Yale Report of 1828”. *History of Education Quarterly* 5: 53-67.; Herbst, Jurgen, “The Yale Report of 1828,” *International Journal of the Classical Tradition*, Volume 11, Issue 2 (December 2004), pp. 213-231; Pak, Michael S., “The Yale Report of 1828: A New Reading and New Implications,” *History of Education Quarterly*, Volume 48, Issue 1, pp. 30-57 (February 2008); Jack C. Lane, “The Yale Report of 1828 and Liberal Education: A Neorepublican Manifesto,” *History of Education Quarterly*, Vol. 27, No. 3. (Autumn, 1987), pp. 325-338. Kimball, B. A. 1986. *Orators & Philosophers: A History of the Idea of Liberal Education*. New York: Teachers College Press, Teachers College, Columbia University. See Kimball’s footnotes, pp. 150-151.

33. See: Lane, J. C. 1987. “The Yale Report of 1828 and Liberal Education: A Neorepublican Manifesto”. *History of Education Quarterly* 27: 325-338. In his footnotes on pp. 325-326, Lane provides a short bibliographic essay and lists scholars who have interpreted the Yale Report as a “conservative, even reactionary, statement”, a “retreat to the past”, or a reaffirmation of “the liberal arts as taught through the classical curriculum.” Pak reviews both traditional scholarship and the revisionists: Pak, M. S. 2008. “The Yale Report of 1828: A New Reading and New Implications”. *History of Education Quarterly* 48:

that of Michael S. Pak, who claims that Yale decided to retain its traditional prescribed curriculum to preserve its competitive position and to accommodate the demands and expectations of its clients – its students and their families.³⁴ In 1828, Yale’s enrollment was greater than that of any other institution of higher education in the country, it had more living alumni, and in the few decades following the Yale Report, more Yale graduates were appointed as college presidents than were graduates of other institutions.³⁵

Two of our three institutional structures—the physical and administrative structures—receive sparse attention in the Yale Report. The Report’s mention of Yale’s physical structure is related to the contribution of the college’s buildings to the institution’s intellectual structure. Residential buildings for students located on campus facilitate the formation of a community, or family relationship between the students and faculty. The Report’s authors felt that the older students that attended urban educational institutions that provided advanced professional courses would not benefit from this community aspect of the intellectual structure.³⁶

The administrative structure of Yale College, including its funding sources, is not being questioned in the Report. Funding is mentioned only in relation to the institution’s concern that the diversion of financial resources to establish new departments of study would impair its primary educational goals.³⁷ The near absence of concern regarding the administrative and physical structures of the institution contrasted with the extensive discussion in defense of the intellectual structure

30-57. Page 56.

34. In early 2008, the ongoing discussion about the Yale Report was reconsidered and continued by Michael S. Pak.

—. 2008. “The Yale Report of 1828: A New Reading and New Implications”. *History of Education Quarterly* 48: 30-57.

35. Urofsky, M. I. 1965. “Reforms and Response: The Yale Report of 1828”. *Ibid.*: 53-67. Page 62. Kimball, B. A. 1986. *Orators & Philosophers: A History of the Idea of Liberal Education*. New York: Teachers College Press, Teachers College, Columbia University. Page 150. Bruce A. Kimball is Professor of Education in the Warner Graduate School of the University of Rochester, New York.

36. 1828. *Reports on the Course of Instruction in Yale College; by a Committee of the Corporation, and the Academical Faculty*. New Haven: Printed by Hezekiah Howe. Pages 9-10.

37. *Ibid.* Page 25.

indicates that the curriculum was a much higher priority than either of the other two structures. It also indicates that the administrative and physical structures were not controversial issues at that time. Yale was not mounting a defense of its physical structure in response to a challenge presented by the architecture and site plan of the recently opened University of Virginia. The physical structure of Jefferson's university could have been seen as an optimal design, but Yale did not respond.

In summary, the core question addressed by the Yale Report is whether Greek and Latin should be retained in Yale's prescribed curriculum, or replaced with more practical studies. The decision to retain the classic languages is defended with the arguments that the classics "form the most effectual discipline of the mental faculties," and that the institution's reputation will decline if the ancient languages are not a required component of the curriculum.³⁸

Yale's refusal to adopt the elective system in 1828 can be characterized as the college's inability to imagine the possibility of blending a prescribed course of studies with the elective system. Like nineteenth-century Yale College, twenty-first-century universities still require their students to fulfill broad general education requirements in addition to course work for their chosen field of study. These general education requirements are a prescribed curriculum that allows the student some degree of choice.³⁹ The so-called dead languages, Latin and Greek, now are offered as choices to fulfill part of these semi-prescribed requirements.

The Yale report, while criticized for its stubborn allegiance to the teaching of the ancient languages of Greek and Latin, supports educational goals that remain relevant today. Yale was interested in providing a broad foundation for future advanced study, and the development of the human mind through disciplined exercise. Yale was not interested in merely providing training for careers; but, at the same time, this was not to suggest that training for specific vocations was not needed by society. A broad liberal education provides the practical

38. *Ibid.* Pages 36, 51.

39. The history of the prescribed curriculum and the elective system in higher education in the United States is discussed in greater detail by R. Freeman Butts (1910-2010), Professor Emeritus of Education, Teachers College, Columbia University in Butts, R. F. 1939. *The College Charts its Course: Historical Conceptions and Current Proposals*. New York: McGraw-Hill Book Company.

benefit of preparation for many specialized careers in law, management, teaching, government, and other areas. Chapter six examines the Morrill Act of 1862, the federal statute that established the nation's public research universities. The Act called for classical studies in addition to programs in agriculture and the mechanic arts, "in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life."⁴⁰

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40. United States Congress. 1862. Chapter CXXX. – "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

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CHAPTER 6

The Morrill Land-Grant Act of 1862

“Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged.”¹

BACKGROUND

During the first half of the nineteenth century, while Yale College was defending the role of Greek and Latin in its liberal arts curriculum, and prior to the Civil War and the Morrill Land-Grant Act of 1862, a number of educational institutions were conceived and established to provide practical courses in science. In 1800, James McHenry, the Secretary of War, understood the broad role of the civil engineer in society:

“We must not conclude that service of the engineer is limited to constructing fortifications. This is but a single branch of the profession; their utility extends to almost every branch of war; besides embracing whatever respects public buildings, roads, bridges, canals and all such works of a civil nature.”²

The first of these institutions to be established was the United States Military Academy at West Point, approved by Congress in 1802. Prior to the introduction of civil engineering at West Point in about 1817

1. Excerpt from The Northwest Ordinance of 1787. Quoted in Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). p. 185. Tewksbury cites W.E. Peters, *Legal History of Ohio University*, Cincinnati, Ohio, 1910, p. 36.

2. Quoted in Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. p. 22. Grayson cites: Committee on History and Heritage of American Civil Engineering, *The Civil Engineer—His Origins*, American Society of Civil Engineers, New York, 1970, p. 37.

by Colonel Sylvanus Thayer (1785-1872), applications of engineering technology were limited to the design and construction of military fortifications. Civil engineers trained at West Point provided technical expertise to the U.S. Government for the construction of canals, roads, and railroads and surveys of frontier lands.³ Engineering was also offered at the United States Naval Academy, established in 1846.

The first private institution to offer courses in civil engineering was the American Literary, Scientific and Military Academy at Norwich, Vermont, established in 1819.⁴ The Rensselaer Polytechnic Institute, established in 1824 in Troy, New York, departed from traditional college curriculum and offered practical instruction in experimental chemistry, agriculture, and engineering.⁵ Harvard's Lawrence Scientific School began in 1847, and Dartmouth's Chandler School of Science

3. Library of Congress. 2007. "American Memory -Today in History: March 16." United States Military Academy at West Point: Library of Congress, American Memory. <http://memory.loc.gov/ammem/today/mar16.html> (Accessed: May 23, 2008).

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Note: Dr. Eddy's book contains many factual errors and is an unreliable source.

In 1783, George Washington expressed the importance of courses in engineering to the nation: "Academies, one or more for the Instruction of the Art Military; particularly those Branches of it which respect Engineering and Artillery, which are highly essential, and the knowledge of which, is most difficult to obtain." "Sentiments on a Peace Establishment," 2 May 1783, in *The Writings of George Washington from the Original Manuscript Sources, 1745-1799*. Edited by John C. Fitzpatrick. 39 vols. Washington, D.C.: United States Government Printing Office, 1931-1944. Volume XXVI, pp. 374-375.

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See also: Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. pp.22-23.

4. Lord, G. T., Dana, C. A. 2004. *History of Norwich University: Images of Its Past*. (Excerpts from: "Norwich University," written for Norwich University's 175th Anniversary. Louisville, Kentucky: Harmony House, 1995): Norwich University. <http://www.norwich.edu/about/history.html> (Accessed: May 21, 2008). Eddy, E. D., Jr. 1957. *Colleges for Our Land and Time: The Land Grant Idea in American Education*. New York: Harper & Brothers, Publishers. p. 10.

5. Eddy, E. D., Jr. 1957. *Colleges for Our Land and Time: The Land Grant Idea in American Education*. New York: Harper & Brothers, Publishers. Ross, E. D. 1942. *Democracy's College; the land-grant movement in the formative stage*. Ames, Iowa: The Iowa State College Press. p. 12. Ross provides the following references in his footnote 38: P.C. Ricketts, ed., *Centennial Celebration of Rensselaer Polytechnic Institute*, 39, 63-64, 104-108; same, *History of Rensselaer Polytechnic Institute*, 49-51; R.P. Baker, *A Chapter in American Education*, 17-74; T. C. Mendenhall in Butler's *Monographs*, 7. *Engineering News*, XXVII, 412-14.]

and Arts opened in 1851. ⁶ In 1859, the Cooper Union for the Advancement of Science and Art was established in New York by industrialist and philanthropist Peter Cooper.

In 1846, Yale College established professorships in agricultural chemistry and practical (applied) chemistry and offered courses in these subjects to graduates and others not associated with Yale's undergraduate program. Yale's courses in civil engineering and science were separate from its traditional undergraduate program and were organized under a "non-existent" institution, the Yale Scientific School. In 1861, with a donation from Joseph E. Sheffield, Yale Scientific School became the Sheffield Scientific School. The Massachusetts Institute of Technology was incorporated in the same year. ⁷

In addition to the private scientific institutions and schools we've identified above, there were many public institutions of higher education established prior to the Morrill Act that we have not mentioned previously in this book. When the Morrill Act was first brought before Congress in 1857, the federal government had already granted millions of acres of public domain land to the states to provide endowments for state universities. ⁸

Provisions contained within three acts of the Continental-Confederation Congress in the eighteenth century established the principle of federal land endowments for the support of higher education. These

6. Sylvanus Thayer founded the Thayer School of Engineering at Dartmouth in 1867. See: Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. pp.22-23, and Thayer School of Engineering, <http://engineering.dartmouth.edu/about/history.html> (Accessed; November 21, 2008).

7. Hofstadter, R., Hardy, C. D. 1952. *The Development and Scope of Higher Education in the United States*. New York: Columbia University Press. p. 27; Shimp, A. 1999. *The Sheffield Scientific School at Yale University, 1847-1956*: <http://www.eng.yale.edu/history/sheffield.htm> (Accessed: May 24, 2008).; Harvard School of Engineering and Applied Sciences, The President and Fellows of Harvard College. 2008. *Harvard School of Engineering and Applied Sciences. About Us: History. Our Founding*. (May 24, 2008 <http://www.seas.harvard.edu/aboutus/history/>); An Act to Incorporate the Massachusetts Institute of Technology, and to Grant Aid to said Institute and to the Boston Society of Natural History. Acts and Resolves of the General Court Relating to the Massachusetts Institute of Technology, Acts of 1861, Chapter 183. Senate and House of Representatives, Commonwealth of Massachusetts.

8. Hofstadter, R., Hardy, C. D. 1952. *The Development and Scope of Higher Education in the United States*. New York: Columbia University Press. pp. 38-39

are the Land Ordinance of 1785, the Northwest Ordinance of 1787, and the Ohio Company's 1787 land purchase contract.⁹

Adopted by the Continental-Confederation Congress on May 20, 1785, "An ordinance for ascertaining the mode of disposing of lands in the Western Territory..." (The Land Ordinance of 1785) provided the mechanism for Congress to survey and sell the nation's lands to raise money to cover Revolutionary War debts. The Ordinance divided the lands between the Appalachian Mountains and the Mississippi River into townships, each six miles square. These townships were then further divided into 36 numbered sections, or lots. Each section within each township contained 640 acres, or one square mile. Section number sixteen in each township was to be reserved for the support of public schools:

"There shall be reserved the lot N16, of every township, for the maintenance of public schools within the said township."¹⁰

Both Edmond and Williams explain that the lot sixteen section grants of the Land Ordinance of 1785 were responsible for the establishment of elementary schools—the first through eighth grades.¹¹ Also, Taylor says that while there are established historical precedents for land-grants to support education—private, public, monarchical, and ecclesiastical—the Ordinance of 1785 is the origin of national land-grant programs for the support of education in the United States.¹²

9. See: Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances* (Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University. p. 64.

10. "An ordinance for ascertaining the mode of disposing of lands in the Western Territory: Be it ordained by the United States in Congress assembled, that the territory ceded by individual states to the United States, which has been purchased of the Indian inhabitants, shall be disposed of in the following manner..." Text dated May 18, 1785. *Journals of the Continental Congress*, v. 29, p. 923. Imprint from *Journals of the Continental Congress*, v. 33, p. 753; formerly ascribed to the press of John Dunlap in JCC, v. 29, p. 923 (#477). Printed in Philadelphia. Digital ID: <http://hdl.loc.gov/loc.rbc/bdsdcc.13201>. Accessed: August 29, 2008.

11. Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. p. 35. Edmond, J. B. 1978. *The Magnificent Charter: The Origin and Role of the Morrill Land-Grant Colleges and Universities*. Hicksville, New York: Exposition Press. p. 6.

12. Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances*

The Northwest Ordinance of July 13, 1787 does not contain any reference to the sale of lands. It created a system of governance for the territory of the United States northwest of the Ohio River and provided the mechanism for establishing new states. Article three of this Ordinance includes a statement expressing the importance of knowledge to the well-being of the nation linked to a mandatory requirement stated in general terms that schools and the means to provide education shall be encouraged:

“Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged.”¹³

Taylor says that this clause, which established a principle that guided national policy, appears in the text of many state constitutions and was often quoted in efforts to convince Congress to make additional grants in support of education.¹⁴

The Ohio Company’s July 27, 1787 contract for the purchase of Northwest lands is consistent with both the Land Ordinance of 1785 and the Northwest Ordinance of 1787. The terms of the Ohio Company’s purchase contract as approved by the Continental-Confederation Congress on July 23, 1787 includes the following provisions regarding township grants for the establishment of a university:

“Provided, always, and it is hereby expressly stipulated, that in the said grant, ... reserving in each township, or fractional part of a township,

(Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University. p. 121. On page 33 of his book, Taylor cites Joseph Schafer, *The Origin of the System of Land Grants for Education*, pp. 7-10. Schafer’s book is a Masters of Letters thesis from the University of Wisconsin, 1899.

13. United States Congress. 1787. Northwest Ordinance; July 13, 1787. *An Ordinance for the government of the Territory of the United States northwest of the River Ohio*: The Avalon Project at Yale Law School. The Lillian Goldman Law Library in Memory of Sol Goldman. New Haven, Connecticut 06520. <http://www.yale.edu/lawweb/avalon/nworder.htm>. Accessed: September 1, 2008. Source: *Documents Illustrative of the Formation of the Union of the American States*. Government Printing Office, 1927. House Document No. 398. Selected, Arranged and Indexed by Charles C. Tansill.

14. Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances* (Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University. pp. 121-122.

... lot number 16, for the purposes mentioned in the said ordinance of the 20th of May, 1785; lot number twenty-nine to be appropriated to the purposes of religion; ... and also reserving ... two complete townships to be given perpetually for the purposes of an university, ... to be applied to the intended object in such manner as the Legislature of the State wherein the said townships shall fall, or may be situated, shall or may think proper to direct.”¹⁵

On July 27, 1787, an amendment to the Ohio Company’s purchase contract included the provision that “the lands for the university should be near the center of the first million and a half of acres purchased, in order to hasten its establishment.”¹⁶

Taylor points out that the Ohio Company’s contract for the purchase of public lands is important to the history of the public university because it is the first evidence of federal assistance given explicitly to support higher education: the term ‘university’ is used instead of the terms “schools,” “public schools,” “academy,” and “seminaries of learning.” This contract established a precedent for federal land grants in support of higher education.¹⁷ The Enabling Act of Ohio (1802), under which every section number sixteen was reserved for the support of schools, was the first act of the Congress of the United States to reflect the principles contained within the Ohio Company contract and the ordinances of 1785 and 1787.¹⁸

The Ohio University, chartered by the state of Ohio in 1804, was sup-

15. Quoted in Swan, W. O. 1965. “The Northwest Ordinances, So-Called, and Confusion”. *History of Education Quarterly* 5: 235-240. Swan provides this reference: Charles M. Walker, *History of Athens County, Ohio and Incidentally of the Ohio Land Company* (Cincinnati, 1869), pp. 555-561, and further explains that “the Journals of the Continental Congress do not contain a complete copy of the contract between the Ohio Company and the Board of Treasury. They contain only the authorization for the Board of Treasury to enter into a contract and the general conditions to be included in the contract. The cited publication by C.M. Walker does contain the complete contract.” See also: Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances* (Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University.

16. Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances* (Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University. Page 58.

17. *Ibid.* p. 65, 119.

18. *Ibid.* pp. 104, 123. Note: The Constitution of the United States went into effect on March 4, 1789, only thirteen years before Ohio’s enabling act was passed by Congress in 1802.

ported by revenue from the public university lands. The 1804 university corporation consisted of the state governor, a body of trustees, and the president of the faculty. The early presidents of Ohio University were Presbyterians and Methodists, and students were required to attend prayers in the chapel each morning.¹⁹ As of 2009, Ohio University is a publicly controlled institution that offers the Ph.D. degree. It is governed by a Board of Trustees, the members of which are appointed by the Governor of the State of Ohio with the advice and consent of the Ohio Senate.²⁰

The next milestone in the history of federal land endowments for higher education appears in 1836, when the State of Michigan was accepted into the Union. Consistent with the Land Ordinance of 1785, and Ohio's enabling act, Michigan's enabling act granted section sixteen of each township to the state for the support of schools. In addition, it followed the pattern established in 1787 by the Ohio Company contract when it stated that

"... the seventy-two sections of land set apart and reserved for the use and support of a university by an act of Congress approved on the twentieth day of May, eighteen hundred and twenty-six, entitled 'an act concerning a seminary of learning in the Territory of Michigan,' are hereby granted and conveyed to the State, to be appropriated solely to the use and support of such university in such manner as the Legislature may prescribe."²¹

By 1885, most of lands set apart for the support of a university in Michigan had been sold. The proceeds were used to create an endowment for a state university.

In 1838, the territory of Wisconsin received two townships from Con-

19. Andrews, E. B. 1876. "Ohio University" in White E. E., Harvey T. W., eds. *A History of Education in the State of Ohio. A Centennial Volume*. Published by Authority of the General Assembly. Ohio Teachers' Association, Centennial Committee. Columbus, Ohio: The Gazette Printing House. pp. 191-192. The author also provides a history of disputes related to the ability of the state and the university to collect rents and taxes from the university lands to support the university. For this history, see pp. 192-198.

20. See: Ohio University Board of Trustees. <http://www.ohio.edu/trustees/governance/index.cfm>. (Accessed: September 19, 2008)

21. *U.S. Statutes at Large*, V, pp. 59-60. Cited in Taylor, H. C. 1922. *The Educational Significance of the Early Federal Land Ordinances* (Submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Philosophy, Columbia University). New York: Teachers College, Columbia University. p. 85.

gress for the support of a university. After it was admitted to the Union as a state in 1846, Wisconsin's constitution of 1848 established a state university supported by a fund created by investing the proceeds from the sale of its federal university land grants in government bonds.²²

Twenty-one states were admitted into the Union prior to the Civil War. Of these, seventeen states received Congressional land grants for higher education between 1796 and 1861. Thirteen state universities were established *before* the Civil War in twelve of the seventeen states that received Congressional land grants. These twelve states were Tennessee, Ohio, Louisiana, Indiana, Mississippi, Alabama, Missouri, Michigan, Iowa, Wisconsin, California, and Minnesota. The remaining five new states that received Congressional land grants did not establish a state university before the Civil War. These five states were Illinois, Arkansas, Florida, Oregon, and Kansas. Four of the twenty-one states that were admitted prior to the Civil War *did not* receive land grants. These were Vermont, Kentucky, Maine, and Texas. Vermont and Kentucky each established state universities before the Civil War. Maine and Texas did not.²³

Tewksbury defines a state university as “a degree-conferring institution of higher education placed by legal stipulation under the predominant control of the state.”²⁴ He defines a “revolutionary” institution of higher education as one that adheres to the ideals of the American Revolution, is controlled by the state, is supported primarily by public funds rather than by philanthropy, and conforms to the principle of the separation of church and state as expressed in the First Amendment to the Constitution of the United States.²⁵ Tewksbury claims that one

22. *Ibid.* pp. 99-102.

23. See: Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). p. 186-207. Donald G. Tewksbury (1894-1958), former professor at Teachers College, Columbia University, provides a table that lists each of the seventeen states that received land grants before the Civil War, their dates of admittance, the number of acres received, and identifies the Congressional acts by year. Tewksbury discusses each of the seventeen states: their admission to the Union, the institution established before the Civil War with the federal land grant endowment, and a short history of the evolution of the institution's administrative structure, including its links to religion.

24. *ibid.* p. 166.

25. *ibid.* See Chapter III.

permanent state university was founded on these revolutionary ideals before the Civil War in six of the original thirteen states—Georgia, North Carolina, South Carolina, Maryland, Virginia, and Delaware.²⁶ (See Tables 6.1 and 6.2)

Many of the state institutions of higher education founded before the Civil War were at some point controlled by religious interests and governed by self-perpetuating boards of trustees, which was common practice in that period. Each of the state institutions established in six of the original states endured opposition from, and at times was dominated by religious interests. In his analysis of the administrative structures of the nine colonial colleges, Tewksbury asserts that the colonial governments “refused to assume primary responsibility for the control and support of the institutions established in their midst.”²⁷ The American Revolution and the disestablishment of the church brought new theories of public control and support of higher education. Eventually, the administrative structure of these early state institutions progressed from being under church-dominated control to operating as a branch of civil government.²⁸

The University of South Carolina began as a revolutionary institution under control of the state. The members of its board of trustees were elected by the state legislature, and it operated independent of religious interests until 1834, when denominational groups forced the resignation of Thomas Cooper, the university’s second president.

The University of Maryland’s original administrative structure was unusual. Its autonomous Board of Regents was comprised of members of its four faculties; however, in 1826, the legislature reorganized the university and created a Board of Trustees to replace the Regents. The governor was given power to appoint all trustees. In 1838, the original Board was reinstated by the state’s Supreme Court, and the university operated as a private institution until it was placed under state control in 1920.

The University of Virginia maintained its state-controlled administrative structure through periods of religious influence. In contrast, the 1821 charter granted to the University of Delaware provided state control

26. *ibid.* pp. 174-183.

27. *ibid.* p. 141.

28. *ibid.* p. 174-175. See also pp. 154-166: Tewksbury discusses the effects of disestablishment on institutions of higher education.

Table 6.1 Permanent State Universities founded on Revolutionary Ideals		
Six of the original states	Permanent state institutions established before the Civil War	Year Established
Georgia	University of Georgia (1862 land-grant institution)	1785
North Carolina	University of North Carolina at Chapel Hill	1789
South Carolina	University of South Carolina-Columbia	1801
Maryland	University of Maryland-Baltimore	1807
Virginia	University of Virginia	1819
Delaware	University of Delaware (1862 land-grant institution)	1833

Source for Table 6.1: Tewksbury, Donald G. 1965. *The Founding of American Colleges and Universities Before the Civil War* : Archon Books (A reprint of the original edition, Copyright 1932 by Teachers College, Columbia University). pp. 174-183.

Table 6.2 States In Which No State University Was Founded Before the Civil War	
States	Colonial college and establishment year; or, year of state admittance into the Union
New Hampshire (original state)	Colonial college: Dartmouth College, 1769
Massachusetts (original state)	Colonial college: Harvard University, 1636
Rhode Island (original state)	Colonial college: Brown University, 1765
Connecticut (original state)	Colonial college: Yale University, 1701
New York (original state)	Colonial college: Columbia University, 1754
New Jersey (original state)	Colonial colleges: Princeton University, 1746; Rutgers University, 1766
Pennsylvania (original state)	Colonial college: University of Pennsylvania, 1755
Illinois	Admitted 1818
Maine	Admitted 1820
Arkansas	Admitted 1836
Florida	Admitted 1845
Texas	Admitted 1845
Oregon	Admitted 1859
Kansas	Admitted 1861

Source for Table 6.2: Tewksbury, Donald G. 1965. *The Founding of American Colleges and Universities Before the Civil War* : Archon Books (a reprint of the original edition, Copyright 1932 by Teachers College, Columbia University). pp. 136-142, and Table XXIII, p. 170.

through the election of a Board of Trustees by the legislature; then, in 1833, religious interests obtained another charter, repealed the first charter, and established an institution under Presbyterian control. In 1913, the state took control of the institution, and in 1921 it became the University of Delaware.²⁹

The state universities and colleges that were established before the Civil War include the University of Michigan in Ann Arbor, established by legislative act in 1817.³⁰ A separate institution, Michigan State University (at Lansing), was established in 1855 as the Agricultural College of the State of Michigan, and later identified as the state's land-grant institution under the Morrill Act.³¹ The Pennsylvania State University was originally chartered by the Pennsylvania General Assembly in 1855 as the Farmers' High School of Pennsylvania, and was selected as the state's land-grant college in 1863.³² The University of Wisconsin was

29. *Ibid.* pp. 174-183.

30. The name was changed from the Catholepistemiad, or University, of Michigania to the University of Michigan in 1821.

See: University of Michigan. Bentley Historical Library. 2008a. *University of Michigan History*: <http://bentley.umich.edu/research/um/history.php> (May 25, 2008),

—, 2008b. *University of Michigan History Timelines*: <http://bentley.umich.edu/exhibits/umtimeline/index.php> (May 25, 2008).

See also: University of Michigan. 2009. *About the Board of Regents*: The Regents of the University of Michigan. <http://www.regents.umich.edu/about/>. See also: <http://www.bentley.umich.edu/exhibits/regents/history.php> (Accessed: July 10, 2009). See: history of the University of Michigan's board of regents at: University of Michigan. Bentley Historical Library. 2008c. *Historical Background: University of Michigan Board of Regents*: <http://www.bentley.umich.edu/exhibits/regents/history.php> (Accessed: May 25, 2008). Excerpt: "The Organic Act of March 18, 1837, called for the university to be governed by what was termed a Board of Regents composed of twelve members. There was no real change, however, in the method of selection of the governing board. Regents were nominated by the governor and appointed by and with the consent of the Senate. The law further stipulated that the governor, lieutenant governor, justices of the Supreme Court, and chancellor of the state were to serve as ex officio regents. The chancellor of the university, later called president, was also to serve ex officio on the board, and act as chair."

31. Michigan State University. 2007. *Michigan State University: Then & Now*: Michigan State University Board of Trustees. <http://www.msu.edu/thisismsu/thenandnow.html> (Accessed: May 25, 2008).

32. Hofstadter, R., Hardy, C. D. 1952. *The Development and Scope of Higher Education in the United States*. New York: Columbia University Press. p. 27-28. The Pennsylvania State University, Special Collections Library: Penn State University Archives. 2005. *Penn State History: Significant Events in the Development of The Pennsylvania State University*: <http://www.libraries.psu.edu/speccolls/psua/psgeneralhistory/historicalline/histtoc.htm> (Accessed: May 24, 2008).

created by the Constitution of the State of Wisconsin in 1848, and the University of Minnesota was chartered by Territorial Law in 1851 and perpetuated by the Constitution of the State of Minnesota.³³

Three of the 1862 Morrill Act land-grant institutions—Pennsylvania State University, the University of Delaware, and the University of Vermont—have administrative structures that can best be characterized as public/private hybrids.³⁴ The states of Delaware and Vermont do not have a fully publicly-controlled university that offers the Ph.D.

Pennsylvania State University's corporate charter, granted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in 1855, established Penn State's Board of Trustees as a corporate body with perpetual succession. The state's governor and other representatives of the Commonwealth are *ex officio* members of the board, and the Pennsylvania legislature has provided funding to the institution since 1887.³⁵

The University of Delaware, which describes itself as a "state-assisted, privately controlled institution," received its charter from the state in 1833. The Governor of the State of Delaware, the President of the State Board of Education, the Master of the State Grange, and the President of the University sit *ex officio* on the institution's governing Board of Trustees. The Governor appoints eight of the twenty-eight appointed and elected trustees, and the whole board elects twenty trustees.³⁶ The University of

33. Board of Regents: University of Wisconsin System. 2007. *History and Organization of the University of Wisconsin System*: University of Wisconsin. <http://www.wisconsin.edu/about/history.htm> (Accessed: May 24, 2008). Regents of the University of Minnesota. 2003. *University of Minnesota Charter*. Territorial Laws 1851, Chapter 3. Perpetuated by the Constitution of the State of Minnesota, Article 8, Section 4. Chap. III. – *An act to incorporate the University of Minnesota, at the Falls of St. Anthony*: <http://www1.umn.edu/regents/polchart.html> (Accessed: May 24, 2008).

34. Each of these three hybrid land-grant institutions is included in data tables and charts that we generated to illustrate the different attributes of public universities.

35. Senate and House of Representatives of the Commonwealth of Pennsylvania. 1855. "An Act To Incorporate The Farmers' High School of Pennsylvania": Special Collections Library. Penn State University Archives. <http://www.libraries.psu.edu/specollections/psua/psgeneralhistory/legislation/farmers.htm>. (Accessed: September 3, 2008). Pennsylvania State University. 2005. "About Penn State: Penn State's Mission and Public Character": Pennsylvania State University. <http://www.psu.edu/ur/about/mission.html>. (Accessed: September 3, 2008).

36. The University of Delaware. 2008. "Office of the Vice President and University Secretary: Members of the Board of Trustees 2008": The University of Delaware. <http://www.udel.edu/>

Table 6.3	
Fourteen New States Where State Universities Were Founded Before the Civil War	
New states	Year of admission to the Union / Institution, year established
Vermont	1791 / University of Vermont, 1791
Kentucky	1792 / University of Louisville, 1798
Tennessee	1796 / The University of Tennessee, 1794
Ohio	1803 / Ohio University, 1804; University of Cincinnati, 1819
Louisiana	1812 / Louisiana State University, 1860
Indiana	1816 / Indiana University–Bloomington, 1820
Mississippi	1817 / University of Mississippi, 1844
Alabama	1819 / Auburn University, 1856
Missouri	1821 / University of Missouri–Columbia, 1839
Michigan	1837 / University of Michigan, 1817; Eastern Michigan University, 1849; Michigan State University, 1855
Iowa	1846 / University of Iowa, 1847; Iowa State University, 1858
Wisconsin	1848 / University of Wisconsin–Madison, 1849
California	1850 / University of California 1868* (*Note: Tewksbury uses the year 1855, the founding date of the College of California, the precursor to the University of California, as the basis to include California in his list of institutions founded before the Civil War.)
Minnesota	1858 / University of Minnesota, 1851
Sources for Table 6.3:	
Tewksbury, Donald G. 1965. <i>The Founding of American Colleges and Universities Before the Civil War</i> . Archon Books (a reprint of the original edition, Copyright 1932 by Teachers College, Columbia University), Table XXIII, pp. 170, 204.	
Burke, J. M., ed. 2008. <i>2008 Higher Education Directory</i> . Twenty-sixth ed., Falls Church, Virginia: Higher Education Publications, Inc.	

Delaware's charter includes an institutional statement of purpose that restates the requirements of the Morrill Act of 1862:

"The leading object of the University shall be to promote the liberal and practical education of persons of all classes in the several pursuits and professions of life through the teaching of classical, scientific and agricultural subjects, the mechanical arts, military tactics, and such other subjects as are related to and will contribute to the achievement of the objectives of a Land-Grant, State University."³⁷

The combined elements of a private and a public institution are revealed in the University of Vermont's Board of Trustees and in its official name—The University of Vermont and State Agricultural College. The twenty-five-member board, that has full legal responsibility for the university, is composed of distinct subgroups related directly to the institution's two part official name. There are two *ex officio* board members: the University President, and the Governor of the State. Three board members are appointed by the Governor with the advice of the Senate of the General Assembly of the State of Vermont. The nine members of the Board of Trustees of the Vermont Agricultural College are elected by the General Assembly of the State of Vermont. Nine additional members, known as the Board of Trustees of The University of Vermont, are elected by the Board of Trustees for the institution founded in 1791 (known as The University of Vermont). Two student

vp-sec/members_trustees.html. (Accessed: September 3, 2008). Munroe, J. A. 1986. *The University of Delaware: A History*. University of Delaware. <http://www.udel.edu/PR/munroe/> (Accessed: September 3, 2008). State of Delaware. 1953. Restatement Of The Charter Of University Of Delaware. 8 Delaware Code (1953) Title 14, Chapter 51, Page 655. Sec. 5101, Et Seq.: University of Delaware. <http://www.udel.edu/provost/fachb/udcharter/index.html>. Accessed: September 5, 2008. The privately-controlled state-assisted University of Delaware's multi-million dollar 2009 budget request for to the state included items related to the university's intellectual structure such as funding for teacher education programs and library materials. Budget requests for the administrative structure included increased funding for state scholarships and campus security. Physical structure budget requests included funding for building renovation, planning, construction, and specialized equipment for scientific research programs. See: Rhodes, J. 2007. "President presents FY 2009 budget request". *UDaily*. Posted: 9:41 a.m., Nov. 8, 2007. University of Delaware. <http://www.udel.edu/PR/UDaily/2008/nov/budget110807.html>. Accessed: September 9, 2008.

37. State of Delaware. 1953. Restatement Of The Charter Of University Of Delaware. 8 Delaware Code (1953) Title 14, Chapter 51, Page 655. Sec. 5101, Et Seq.: University of Delaware. <http://www.udel.edu/provost/fachb/udcharter/index.html>. Accessed: September 5, 2008. Paragraph 5102. Purpose.

members sit on the board.³⁸

The Morrill Act of 1862

The Morrill Act of 1862 was approved by Congress on July 2, 1862, and signed into law by President Abraham Lincoln.³⁹ It granted to each state 30,000 acres of public land for each senator and member of Congress. The term “land-grant institution” is often used, without providing any further explanation, to identify an institution that was designated by its state legislature to receive the endowments of the Morrill Acts. This description may give the impression that the institution was established and built on specific parcels of land granted by the Act. Land-grant colleges and universities were not built directly on the lands granted to the states. Instead, the land was to be sold by the states and the proceeds from the sale invested in bonds to provide a perpetual endowment for the support of public research universities.

Under the Morrill Act of 1862, a total of 17,430,000 acres of public land was given to the states by the federal government. The total proceeds from the sale of this land were slightly more than \$7,500,000. The eastern states, with their larger populations, were granted more land than the sparsely populated western states.⁴⁰

38. The University of Vermont. 2008. Board Policy Manual, Section II - Governance Documents: 1. University Charter and Statutory Provisions. 1A. University Charter. *Title 16 Appendix, Chapter 1 Education Charters and Agreements: University of Vermont and State Agricultural College: The University of Vermont Board of Trustees*. http://www.uvm.edu/trustees/policymanual/?Page=section_II.html. <http://www.uvm.edu/trustees/policymanual/II%201A%201%20%20Charter.pdf>. Accessed: September 8, 2008.

39. 1863. “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” Thirty-Seventh Congress, Session II, Chapter 130, Sections 1-8. Approved July 2, 1862. Pages 503-505 in Sanger G. P., ed. *The Statutes at Large, Treaties, and Proclamations of the United States of America from December 5, 1859 to March 3, 1863/ By authority of Congress*. A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875. Library of Congress. (May 25, 2008, <http://memory.loc.gov/ammem/amlaw/>) See also: *Statutes at Large, 1789-1875*, Volumes 1 to 18. <http://memory.loc.gov/ammem/amlaw/lwslink.html>, vol. XII. Boston: Little, Brown and Company. The Morrill Act of 1862 is also identified as: United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

40. Nevins, A. 1962. *The State Universities and Democracy*. Urbana, Illinois: University of

The Morrill Act was approved during the Civil War. States engaged in rebellion against the United States were not entitled to the benefits of the Act, but received their share of the endowment in the 1870s, after the war.

The Origins of the Public Domain

The public lands of the United States—the Public Domain—were acquired by the federal government through many different means. However, the lands of the Public Domain have the same origins as the lands of the original thirteen states that comprised the physical structure of the nation at its birth. Prior to the American Revolution, Europeans claimed possession of lands in North America through discovery, establishment of settlements, and military conquest.⁴¹

European explorers maintained the position that discovery conferred absolute title to lands that were assumed to be previously unclaimed, or unknown.⁴² The lands discovered, however, were occupied at the time of European discovery, and this fact raised many legal questions for the colonizers of North America, and the founders of the United States. These questions included: Did the indigenous people of North America “own” the land they occupied? Did they hold title to the land and could they transfer that title to the “discovering” Europeans?⁴³ The “Doctrine of Discovery” was defined by Spanish theologian Francisco de Vitoria in his 1532 dissertation, *De Indis De Jure Belli*, written in defense of the peoples of the Americas. He stated that there were only two ways for Europeans to acquire legal title to discovered lands: by treaty, or through a “just” war.⁴⁴ According to Singer, the “doctrine

Illinois Press. pp. 28-29. On following pages, Nevins describes some of the “elements of folly and rascality” that made the stories behind the disposition of the grants embarrassing.

41. Green, S. D. 2003. “Specific Relief for Ancient Deprivations of Property”. *Akron Law Review* 36: 245-301.

42. 2006. “discovery, n.” in Martin E. A., Law J., eds. *Oxford Dictionary of Law*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 14 July 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t49.e1160>.

43. These legal questions and related others are found in: Getches, D. H., Wilkinson, C. F., Robert A. Williams, J. 1998. *Cases and Materials on Federal Indian Law, Fourth Edition*. St. Paul, Minnesota: West Group. p. 41.

44. 1998. “Treaties, As Concept (with Indian Nations)” in Johansen B. E., ed. *The Encyclopedia of the Native American Legal Tradition*. Westport, Connecticut: Greenwood

of discovery” was not intended originally to justify the seizure of Indian title, but to regulate the land claims of multiple European nations.⁴⁵ It was, however, affirmed as such by the U.S. Supreme Court in *Johnson v. McIntosh* in 1823.⁴⁶ According to Chief Justice John Marshall’s opinion, the Indian Nations of North America did not have the power to transfer land title to private individuals; they had only the right of occupancy. Furthermore, the court’s decision states that the European nation that discovered and colonized North American territory had “an exclusive right to extinguish the Indian title of occupancy, either by purchase or by conquest.”⁴⁷ The decision in the 1941 case of *United States ex rel Hualpai (Walapai) Indians v. Santa Fe Pacific Railroad* stated that Congress could extinguish Indian title “by treaty, by the sword, by purchase, by the exercise of complete dominion adverse to the right of occupancy, or otherwise.”⁴⁸ There was an assumption that the lands of the indigenous peoples of North America were not “property” under the Constitution’s Fifth Amendment,⁴⁹ which states:

“No person shall be ... deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.”⁵⁰

After the American Revolution, the states and colonies ceded their claims to land outside their boundaries to the national government. In

Press. p. 330. See: Francisco de Vitoria (1486? – 1546), *Francisci de Victoria De Indis et De ivre belli relectiones*, ed. by Ernest Nys. The Carnegie Institution of Washington, Washington, D.C. 1917. *Classics of international law*; no. 7.

45. Singer, J. W. 1994. “Well Settled?: The Increasing Weight of History in American Indian Land Claims”. *Georgia Law Review* 28: 481-. No page number. Joseph William Singer is Professor of Law at Harvard University.

46. 1823. *Johnson and Graham’s Lessee v. M’Intosh*, 21 U.S. (8 Wheat) 543. 21 U.S. (8 Wheat) 543 (1823). United States Supreme Court.

47. *Johnson and Graham’s Lessee v. M’Intosh*, 21 U.S. (8 Wheat) 543 (1823). Cited and quoted in: Getches, D. H., Wilkinson, C. F., Robert A. Williams, J. 1998. *Cases and Materials on Federal Indian Law, Fourth Edition*. St. Paul, Minnesota: West Group. pp. 37, 42.

48. *United States ex rel Hualpai (Walapai) Indians v. Santa Fe Pacific Railroad*, 314 U.S. 339 (1941): Quoted in Singer, J. W. 1994. “Well Settled?: The Increasing Weight of History in American Indian Land Claims”. *Georgia Law Review* 28: 481-. See section I. A. “May Congress Constitutionally Extinguish Original Indian Title without the Consent of the Affected Indian Nation?”

49. 1955. *Tee-Hit-Ton Indians v. United States*, 348 U.S. 272: United States Supreme Court.

50. Constitution of the United States (1787), Bill of Rights: Amendment V (1791).

addition, the Public Domain of the United States was greatly increased by the Louisiana Purchase in 1803, the purchase of Florida from Spain in 1819, and lands purchased from Texas in 1850. The Pacific Northwest Territory was acquired from Britain by the Oregon Treaty of 1846, and lands in the Pacific Southwest were transferred from Mexico to the United States in 1848 through the Treaty of Guadalupe Hidalgo. Alaska was purchased from Russia in 1867. In the mid-nineteenth century, land, the United States' principle kind of wealth, was granted to the states for education, roads, canals, railroads, and other public purposes.⁵¹

When other capital was scarce, gifts of land were important sources of support for the establishment and support of public institutions.⁵² The United States Constitution defines the federal government's authority over its lands in the Property Clause (Article IV, section 3, clause 2), which states, 'The Congress shall have power to dispose of and to make all needful Rules and Regulations respecting Territory and other Property belonging to the United States.'⁵³ This clause, which provided the authority to grant Public Domain lands to the states, provides evidence of the interdependency between the nation's administrative and physical structures. A nation's geographical area, its lands, is the foundation of its physical structure.

On May 20, 1862, Congress approved *An Act to secure Homesteads to actual Settlers on the Public Domain*— the Homestead Act. In the same year, Congress also passed the Morrill Act and created the Department of Agriculture. Under the provisions of the Homestead Act, any adult citizen who had never borne arms against the United States government or given aid to its enemies was entitled to 160 acres of

51. Clawson, M. 1968. *The Land System of the United States: An Introduction to the History and Practice of Land Use and Land Tenure*. Lincoln, Nebraska: University of Nebraska Press. See Chapter 5, "Origins of the Public Domain," pp. 36-43, and pp. 59-61. Marion Clawson (1905-1998) was director of the U.S. Department of the Interior's Bureau of Land Management from 1948-1953.

52. Ross, E. D. 1942. *Democracy's College; the land-grant movement in the formative stage*. Ames, Iowa: The Iowa State College Press. Earle Dudley Ross, Professor of History, Iowa State College, provides a brief overview of the historical relation between land grants and the establishment and support of institutions of higher education. p. 2.

53. Campbell, B. A. 2005. "Public Lands" in Hall K. L., ed. *The Oxford Companion to the Supreme Court of the United States*. Oxford Reference Online. Oxford University Press. UC Santa Cruz. 19 May 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t184.e0987>

unappropriated surveyed public land. Those who cultivated the land for five years and built a dwelling on it were entitled to the property for a fee of ten dollars.⁵⁴ John Merriman Gaus says the “new plains frontier was politically organized and opened and settled with little, if any, heed to its natural features of climate and land cover.”⁵⁵ As a result, the small farms established under this Act contributed to the Dust Bowl of the 1930s. In 1931, Walter Prescott Webb (1888-1963) wrote that the region west of the Mississippi was missing water and timber, but that it took twenty years of experimentation to show that 160 acres of land in the humid region east of the Mississippi was equivalent in productive-ness to 2560 acres in the arid region west of the Mississippi.⁵⁶ While small farms established in this arid region were not economically viable, corporations obtained large tracts of land by abusing the provisions of this Act. They had their employees claim land as individuals and then, after acquiring title, reconvey the lands to the corporation.⁵⁷

54. 1862. *An Act to secure Homesteads to actual Settlers on the Public Domain*. Act of May 20, 1862, ch. 75, §§ 1-8, 12 Stat. 392. *United States: The Statutes at Large, Treaties, and Proclamations, of the United States of America. From December 5, 1859, to March 3, 1863*. Volume XII. See also: Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. pp. 117-120.

55. Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 119.

John Merriman Gaus (1894-1969) was Professor of Political Science at the University of Wisconsin-Madison from 1927 to 1947. He relocated to Harvard in 1947. He was also a member of the faculty of the Experimental College (University of Wisconsin) headed by Alexander Meikeljohn.

56. Webb, W. P. 1981. *The Great Plains*. Lincoln, Nebraska: University of Nebraska Press (first published in 1931). Walter Prescott Webb (1888-1963) was Professor of History at the University of Texas. See also: Hansen, Z. K., Libecap, G. D. 2001. *U.S. Land Policy, Property Rights, and the Dust Bowl of the 1930s*. FEEM Working Paper No. 69. 2001. Available at SSRN: <http://ssrn.com/abstract=286699> (Accessed: December 27, 2008).

57. Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 119. See also: Hansen, Z. K., Libecap, G. D. 2001. *U.S. Land Policy, Property Rights, and the Dust Bowl of the 1930s*. FEEM Working Paper No. 69.2001. Available at SSRN: <http://ssrn.com/abstract=286699> (Accessed: December 27, 2008).

THE MORRILL ACT OF 1862: ADMINISTRATIVE, INTELLECTUAL, AND PHYSICAL STRUCTURES

“SEC. 4. That all moneys derived from the sale of lands [...] shall constitute a perpetual fund, the capital of which shall remain forever undiminished [...] and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this Act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions of life.”⁵⁸

“SEC. 5. Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation, or repair of any building or buildings.”⁵⁹

“SEC. 5. Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years from the time of its acceptance as provided in subdivision seven of this section, * at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease...”⁶⁰

“SEC. 5. Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted...by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.”⁶¹

The Morrill Act positioned the federal government to take an influential administrative role in higher education. Through the Act, the

58. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>), Section 4.

59. Ibid.

60. Ibid. * Added by the Act of July 23, 1866, Ch. 209, 14 Stat. 208.

61. Ibid.

federal government carried out its economic and political responsibilities to the nation by directing the development of university intellectual structure toward a curriculum intended to enhance the nation's welfare. The Act can be interpreted as an agreement, or a contract, between the federal government and the states, with the states financially responsible for the physical structure of the colleges and for maintaining basic curriculum required to support educational and research programs specified by the federal government.

The Morrill Act's intellectual structure requirements constitute the primary distinction between its land-grant endowment provisions and those included in the Ohio Company's federal land purchase contract of 1787. Earlier federal land-grant endowments provided broad federal support for institutions of higher education, but did not provide guidance for the institution's administrative, intellectual, and physical structures.

The Act as a whole is a kind of administrative structure, and its internal provisions can be characterized as being administrative, intellectual, and physical structures. The Act of 1862 does not specify the particular governance structures of the individual institutions established under its terms; however, as a contract, it is a perpetual component of each public research university's administrative structure—a core governing document. The Morrill Act is similar to the charter that established Dartmouth College, and the state statute that established the University of Virginia. In Chapter Three, we examined the Court's decision in *Trustees of Dartmouth College vs. Woodward* that prevented states from interfering with corporate charters by unilaterally altering a charter after it has been granted.⁶² The 1862 Morrill Act,

62. 1819. *The Trustees of Dartmouth College v. Woodward*. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. LEXIS 330; 4 Wheat. 518; Supreme Court of the United States. See: Presser, S. B. 2002. "Corporations: Nonprofit Corporations" in Hall K. L., ed. *The Oxford Companion to American Law*, Oxford Reference Online. Oxford University Press. UC Santa Cruz., 9 April 2007; <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t122.e0193-s002>.

In the Supreme Court's decision on *Charles River Bridge v. Warren Bridge* (1837), Chief Justice Roger B. Taney said that when states grant a charter, they could reserve the right to amend it. See: Wiecek, W. M. 2005. "Corporations" in Hall K. L., ed. *The Oxford Companion to the Supreme Court of the United States.*, Oxford Reference Online. Oxford University Press. UC Santa Cruz. 14 January 2008, <http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t184.e0278>. See: Levy, L. W. 2000. *Dartmouth College v. Woodward*, 4 Wheaton 518 (1819). Pages

like Dartmouth's charter, does not include an option that would let the states amend its terms.

The Act defines the purpose of the colleges to be established under its terms, and provides a source of funding and intellectual direction to those colleges. Its requirement for state governments participating in the Act's land-grant program to establish, or identify, at least one college where courses related to agriculture and the mechanic arts would be taught,⁶³ reveals the link between administrative and intellectual structures. To support these educational programs, the Act required the states to invest the proceeds from the sale of land granted to them under the Act, and establish a perpetual endowment fund for the college from the invested capital.

Administrative Structure

The process for land selection and sale is described in the Morrill Act's text. Those states that had federal lands (public domain) within their own boundaries selected acreage from among those lands. States could not own land within the boundaries of other states, so those states without federal land within their boundaries were given land scrip. Land scrip is defined by the Oxford English Dictionary as a "negotiable certificate, issued by the U.S. government ... entitling the holder to the possession of certain portions of public land."⁶⁴ The land scrip granted to the states to endow colleges under the Morrill Act could be

744-746 in Levy L. W., Karst K. L., eds. *Encyclopedia of the American Constitution, Second Edition* vol. 2. Detroit: Macmillan Reference, USA.
 Tewksbury, D. G. 1965. *The Founding of American Colleges and Universities Before the Civil War with particular reference to the religious influences bearing upon the college movement*: Archon Books (Doctoral Dissertation, Teachers College, Columbia University, 1932. Reprinted by Archon Books, United States, 1965). p. 149.

63. The process of selecting which colleges would receive the benefits of the act is described in detail in Chapter IV, "State Option," in Ross, E. D. 1942. *Democracy's College; the land-grant movement in the formative stage*. Ames, Iowa: The Iowa State College Press. Ross writes that "the consequent scrambling, maneuvering, and intriguing for the federal largess reflected the financial desperation of the majority of colleges and the misconception among educational promoters of the peculiar field and special requirements of the new institutions." (p. 69).

64. *The Oxford English Dictionary*. 1989 2nd ed.-a. "land, n.1": OED Online. Oxford University Press. 22 Aug 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50129423>.

used to enter (acquire) certain public domain lands, but it could not be used by the states themselves. The scrip was sold to individuals and the states invested the proceeds. The scrip could be used only to enter lands that had been surveyed and offered at \$1.25 per acre, and it could not be used to enter mineral lands.

Available surveyed land offered for sale was located primarily in the prairies of Kansas and Nebraska, the pine forests of the Lake States, and the San Joaquin Valley of California. Demand for Morrill Act scrip was low because the most desirable available lands had already been sold.⁶⁵

California was granted 150,000 acres of public land in 1868, under the land-grant provisions of the Morrill Act of 1862. Typically, a state would select the public lands it wanted and then offer them for sale; however, at that time, most of the desirable federal land had already been claimed, so the choice of lands available was very limited. In response to this situation, California influenced Congress to amend the Morrill Act to permit the state to enter unsurveyed lands and lands that had been reserved for railroad grants. This privilege also was given to Nevada and Oregon. With the provisions of this amendment, the lands granted to California under the Morrill Act became more valuable. Accordingly, the University's Board of Regents raised the price to \$5.00 per acre, double the price of other federal lands at that time.⁶⁶

The total endowment for the University of California derived from the sale of granted federal lands was more than \$750,000.⁶⁷ However,

65. See: Gates, P. W. 1961. "California's Agricultural College Lands". *The Pacific Historical Review* 30: 103-122. For additional detail on college land-scrip markets, see: LeDuc, T. 1954. "State Disposal of the Agricultural College Land Scrip". *Agricultural History* 28: 99-107.

66. Gates, P. W. 1961. "California's Agricultural College Lands". *The Pacific Historical Review* 30: 103-122. See especially pp. 110-112. Page 121: Gates mentions that the Regents were left with small amounts of land to sell in the twentieth century, but he doesn't provide his source for this information, or any details about the lands. The University Archives at The Bancroft Library, UC Berkeley hold information on the University's lands: <http://bancroft.berkeley.edu/collections/uarc.html> (Accessed: January 27, 2012) In Chapter Nine—Part 2 of this book, we present details obtained from the Regents of the University of California regarding the sale of the University of California's remaining Morrill Act lands.

67. *Ibid.* pp. 112, 121. Note: The endowment amount provided by Gates refers to land sales made in the nineteenth century. See Chapter Nine—Part 2 in this book for additional information on the sales of Morrill Act lands by the University of California. The total proceeds from the sale of Morrill Act lands

some of the California college lands likely would have become more valuable to the University over the long term if they had not been sold, but retained and managed instead. The timberlands of Northern California are one example. In 1869, Isaac Friedlander resigned his seat on the Board of Regents and with his business partner, William S. Chapman, purchased 2,720 acres of timberland in Mendocino County through the University's land grant. Another transaction was made by McPherson, who quietly represented Board of Regents member S. F. Butterworth (a Humboldt region timber baron) and acquired 10,794 acres of land on the Eel River, also in Mendocino County. The Eel River lands were transferred later to the Pacific Lumber Company.⁶⁸

The Morrill Act required the states to invest all of the money derived from the sale of land and land scrip in bonds to provide a perpetual endowment for the support of the colleges established under the Act.

“... the principal thereof shall forever remain unimpaired ... the moneys so invested or loaned shall constitute a perpetual fund, the capital of which shall remain forever undiminished ... and the interest of which shall be inviolably appropriated by each State which may take and claim the benefit of this Act, to the endowment, support, and maintenance of at least one college...”⁶⁹

Under the terms of the Act, the endowment fund could not be used for the purchase, construction, maintenance, or repair of any buildings, except that ten percent of the funds received could be used to purchase lands for “sites or experimental farms.”⁷⁰ The states had to rely on a separate source of funds for the construction of college buildings. In addition to the purchase of land for experimental farms, the endowment funds could be

increased with land transfers made in the 20th and 21st centuries.

68. *Ibid.* pp. 112, 121.

69. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>), Section 4.

70. On May 23, 1916, the Secretary of the Interior ruled that the income derived from the sale of public lands granted for the endowment of colleges under the Morrill Act of 1862 may not be used by the states for the purchase of land. National Association of State Universities and Land-Grant Colleges. 2008. *The Land-Grant Tradition*. Washington, D.C.: National Association of State Universities and Land-Grant Colleges (NASULGC). <http://www.nasulg.org/>. Accessed: September 9, 2008. p. 12.

used for faculty salaries and to purchase equipment and supplies.

After the colleges were established, annual progress reports that included a record of experiments performed, improvements in the educational program, and the state's industrial and economic statistics were to be submitted to all other colleges endowed under the act. A copy of the report also went to the Secretary of the Interior. This strategic requirement established relations between institutions to distribute knowledge, encourage competition and collaboration, forge connections between the states and the federal government, and link the performance of the land-grant universities to industrial development and economic growth in the states. The annual report requirement produced inter- and intra-institutional links between administrative and intellectual structures. The link between the annual reports and the federal government is also pointed out by Eldon L. Johnson, who describes the land-grant institutions as a national network of state-based, federally aided institutions.⁷¹

The Morrill Act, even more explicitly than the requirements in the Northwest Ordinance of 1787, linked the federal government, and its interest in the national welfare, to the government of the states. It not only granted land for the support of higher education, but also required the states to establish specific programs related to agriculture and the mechanic arts. The Morrill Act is distinctly different from earlier land grants to higher education because it linked the physical and administrative structures to the intellectual structure.⁷² The administrative structure aspect of the Act is a hierarchy reaching from national government to state government to educational institution to individual. The Act transferred national wealth to the states through grants of land, and the institutions of higher education established by the states under the Act transmitted the wealth of knowledge to their individual residents.

71. Johnson, E. L. 1981. "Misconceptions About the Early Land-Grant Colleges". *The Journal of Higher Education* 52: 333-351. Esp. p. 347.

Eldon L. Johnson is system-wide Vice President Emeritus, University of Illinois.

72. The Constitution of the United States is silent on the subject of education. The Tenth Amendment to the Constitution states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people."

Intellectual Structure

In the first half of the nineteenth century, science courses were the most expensive part of the intellectual structure of American colleges. The fees for college science courses were higher than those for other courses. These courses required more books, specialized equipment and supplies, and separate laboratory facilities, typically funded by wealthy individual donors. Between 1800 and 1850, the number of science and mathematics textbooks in the American college curriculum increased from two to ten. In the same period, the average number of science faculty increased from one per institution to four, and occasionally the science faculty comprised half of a college's faculty.⁷³

The Morrill Act's influence on the intellectual structure of higher education springs from its requirement that the colleges teach those branches of learning that are related to agriculture and the mechanic arts without excluding other scientific and classical studies⁷⁴ and including military tactics. The states were given the freedom to choose how best to fulfill these intellectual requirements.

Joseph Bailey Edmond, Professor Emeritus of Horticulture at Mississippi State University, reminds us that agriculture is much more than farming. The term includes the production of agricultural products, as

73. Guralnick, S. M. 1975. "Science and the Ante-bellum American College." *Memoirs of the American Philosophical Society*, Volume 109. Philadelphia: The American Philosophical Society. pp. ix, x, 136, 149. Stanley Martin Guralnick is Professor Emeritus of Humanities and Social Sciences, Colorado School of Mines, Golden, Colorado. His Ph.D. dissertation is titled *Science and the American College: 1828-1860*. University of Pennsylvania (1969).

74. The Oxford English Dictionary defines the classical studies as "belonging to the standard authors and literature of Greek and Latin antiquity; the art and culture of the same age; a writer, or a literary work, of the first rank and of acknowledged excellence; especially in Greek or Latin; any ancient Greek or Latin writer; the general body of Greek and Latin literature.

The Oxford English Dictionary. 1989 2nd ed.-b. "classical, a.": OED Online. Oxford University Press. 10 April, 2009, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50040930?> —. 1989 2nd ed.-c. "classic, a. and n.": OED Online. Oxford University Press. 10 April, 2009, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50040929>. cf: the humanities. "Literary learning or scholarship; secular letters as opposed to theology; esp. the study of ancient Latin and Greek language, literature, and intellectual culture (as grammar, rhetoric, history, and philosophy); classical scholarship. In later singular use, chiefly in Scottish universities: the study of Latin language and literature. Cf. humane letters n. at humane adj. Special uses, Litterae Humaniores n."

Definition from: —. Draft Revision Mar. 2009. "humanity, n.": OED Online. Oxford University Press. 10 Apr. 2009, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50109101>.

well as processing, transporting, merchandising, and consumption.⁷⁵ In 1862, there was little to no knowledge of agricultural plant and animal physiology and reproductive biology, biochemistry, ecology, plant pathology, and plant breeding. Disciplines common to twenty-first century university horticulture and animal science programs, such as soil management and conservation, agricultural economics, and governmental policy did not yet exist. Agricultural research at the new land-grant colleges was first applied to problems related to soil depletion and erosion, and methods for clearing forest lands and breaking the prairie soil.⁷⁶

Philander P. Claxton (1862-1957), Commissioner of the United States Bureau of Education, described the role of research at the institutions established under the provisions of the 1862 Morrill Act:

“In most of the fields in which these colleges now give training, however, there was not in 1862 an organized body of scientific knowledge sufficient to furnish working material for courses such as higher institutions are expected to give. Before the common purpose which has informed these colleges could be partially realized, it has been necessary by research and experimentation to develop several sciences and to organize the applications of them into scientific professional curricula.”⁷⁷

Civil engineers were greatly valued in nineteenth-century America. The nation’s transportation infrastructure of roads, railroads, canals, and harbors was expanding, and the demand for engineers was greater than the supply.⁷⁸ The Morrill Act’s “mechanic arts” is often interpreted as engineering; the two terms were nearly synonymous for most of the nineteenth century.⁷⁹

The intellectual structures of the existing small denominational col-

75. Edmond, J. B. 1978. *The Magnificent Charter: The Origin and Role of the Morrill Land-Grant Colleges and Universities*. Hicksville, New York: Exposition Press. p. 17.

76. *Ibid.* p. 30.

77. As quoted on page 38, in: American Association of Land-Grant Colleges and State Universities. 1961. *Land-grant Fact Book; Centennial Edition*. Washington, D.C. Page 38. Source of quote: *United States Bureau of Education Bulletin No. 13*, “The Land-Grant of 1862 and the Land-Grant Colleges,” June 23, 1917.

78. Rae, J. 2001. *The Engineer in History (Revised Edition)*. New York, NY: Peter Lang Publishing, Incorporated. p. 120, 123.

79. *Ibid.* p. 130.

leges were inconsistent with the mission of the Morrill Act.⁸⁰ Nevertheless, many of these colleges competed for the Morrill Act endowment. In 1864, Evan Pugh (1828-1864), the first President of the Pennsylvania State University, criticized the attempts of small literary colleges to claim the Morrill Act funds in his report to the Board of Trustees of the Agricultural College of Pennsylvania:

“No sooner was the bill passed, than in some States the representatives of several Literary Colleges, with the singularly bad taste, made a general rush to the State Legislature to secure a portion of the proceeds of the bill, and in the general scramble for a share of the spoils, in some instances, defeated all legislation upon the subject. That Literary Institutions should, with such undignified haste, grasp at resources (secured for the endowment of Industrial Colleges) to which they had not the *slightest legitimate claim*, [emphasis in original] is a melancholy illustration of the terrible extremities to which they are driven in the struggle for existence.”⁸¹

Some of the institutions questioned by Pugh were successful in their bids to secure their state’s land-grant designation, but did not have the intellectual resources to immediately fulfill the terms of the Act. For example, at Texas A. and M., a doctor of divinity held the chair of chemistry, natural science, and agriculture. The president of Kansas Agricultural College was a minister, and the members of the faculty were those of a denominational college. Florida State College of Agriculture created a professorship of agriculture, horticulture, and Greek, and at another college the professor of languages was assigned courses

80. See Goldin, C., Katz, L. F. 2008. *The Race Between Education and Technology*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press., Appendix B, p. 367: “In the nineteenth and early twentieth centuries, when the public high school system was in its infancy, many colleges and universities trained secondary students. These preparatory departments were founded to ensure that college students had the appropriate training. Many preparatory students were in denominational schools, which were included in the college survey [of the U.S. Office of Education] because they had graduate programs. These were often schools with hundreds of secondary school students and only a few graduate student priests. Many of these institutions were in the Midwest and it may be that local boosterism favored calling them colleges rather than high schools.”

81. Pugh, E. 1864. “A Report”. Pages 3-35, in Appendix. *Report of the Transactions of the Pennsylvania State Agricultural Society, for the years 1861 –’62 –’63. Volume VI*. Harrisburg, Pennsylvania: Singerly A. Myers, State Printers. Quote appears on page 32. Also quoted in Ross, E. D. 1942. *Democracy’s College; the land-grant movement in the formative stage*. Ames, Iowa: The Iowa State College Press. p. 70.

in horticulture.⁸²

In the beginning years of the land-grant institutions, most teachers of applied science were graduates of German, British, and Scottish universities. In the 1870s, teachers were drawn from graduates of the Rensselaer, Sheffield, and Lawrence schools. Other sources of teachers were experienced technicians that were not trained at universities and medical students that had an interest in general science.⁸³

According to Guralnick, between 1820 and 1860, science was elevated “to an unprecedentedly important, almost dominant position in the structure of the liberal arts program.”⁸⁴ Dr. Eldon L. Johnson, system-wide Vice-President Emeritus, University of Illinois, attributes the common university mission statement—“instruction, research, and service”—to the Morrill Act of 1862, and credits the Act with putting applied scientific and technological education and associated research programs in a central position at universities.⁸⁵ In 1871, Daniel Coit Gilman completed a study of land-grant institutions for the Commissioner of Education, an office located within the U.S. Department of the Interior. He found that courses in science, technology, and industry predominated in land-grant institutions.

82. Hofstadter, R., Hardy, C. D. 1952. *The Development and Scope of Higher Education in the United States*. New York: Columbia University Press. pp. 40-41.

83. Ross, E. D. 1942. *Democracy's College; the land-grant movement in the formative stage*. Ames, Iowa: The Iowa State College Press. p. 108

84. Guralnick, S. M. 1975. “Science and the Ante-bellum American College.” *Memoirs of the American Philosophical Society*, Volume 109. Philadelphia: The American Philosophical Society. p. vii. This passage is also quoted in Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. p. 24. Williams provides a summary of Guralnick’s data on the increase in science faculty in the first half of the nineteenth century, the period prior to the Morrill Act: “In 1800, all scientific subjects typically engaged one professor per college. By 1830, the average science faculty had grown to two, and by 1860 to four. In the aggregate, the numbers of science professors on college faculties grew from about 25 in 1800 to 60 in 1828 to more than 300 in 1850. Occasionally, the science professors constituted a majority of the faculty.”

See also: Guralnick, Stanley Martin (1969), *Science and the American College: 1828-1860*. Ph.D. dissertation, University of Pennsylvania, United States – Pennsylvania. Retrieved May 27, 2008, from Dissertations & Theses: A&I database. (Publication No. AAT 6921362). Guralnick is Professor Emeritus of Humanities and Social Sciences at the Colorado School of Mines. CSM, a public research university, was established in 1859.

85. Johnson, E. L. 1981. “Misconceptions About the Early Land-Grant Colleges”. *The Journal of Higher Education* 52: 333-351. p. 334.

Gilman's study also revealed that the land-grant colleges were influencing other institutions of higher education to establish programs in science.⁸⁶

The Morrill Act of 1862 did not differentiate between private and public institutions.⁸⁷ The states selected the institutions that would receive the endowment from the land grant and carry out the terms of the Act. If the terms of the Act were not carried out within five years, the states had to reimburse the federal government the amount realized from the sale of land received under the Act. Today, there is a land-grant institution in every state, and some states have more than one.⁸⁸

The land-grant designated institution in some states was an integral part of the first state university. Other states established a land-grant college or university as a separate institution from the first state university.⁸⁹ In some states, the land-grant designated institution began as an Agricultural and Mechanical College (A & M), and later developed into the state's first public university. Two land-grant designated

86. Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. pp. 50-52. Roger Lea Williams, D.Ed., is Executive Director of the Pennsylvania State Alumni Association. His dissertation is titled *George W. Atherton and the beginnings of federal support for higher education* (1988, The Pennsylvania State University). Daniel C. Gilman, "Report on the National Schools of Science," in *Report of the Secretary of the Interior*, vol. 2 (Washington, D.C.: Government Printing Office, 1871), p. 434.

87. The Massachusetts Institute of Technology and Cornell University are both privately-controlled 1862 land-grant institutions. Tuskegee University is a privately-controlled 1890 Morrill Act land-grant institution.

88. See table in Appendix A for a complete list of the land-grant universities established under the 1862 and 1890 Morrill Acts. Land-grant colleges and universities established under the 1862 Morrill Act include those in the District of Columbia (The University of District of Columbia), American Samoa (American Samoa Community College), Guam (University of Guam), Micronesia (College of Micronesia), Northern Marianas (Northern Marianas College), Puerto Rico (University of Puerto Rico), and the Virgin Islands (University of the Virgin Islands). Our interest is limited to only those institutions that were established in the 50 United States of America.

89. Books that include lists of institutions that received the land-grant designation: Eddy, E. D., Jr. 1957. *Colleges for Our Land and Time: The Land Grant Idea in American Education*. New York: Harper & Brothers, Publishers. pp. 49-50, 83, 289-291; Edmond, J. B. 1978. *The Magnificent Charter: The Origin and Role of the Morrill Land-Grant Colleges and Universities*. Hicksville, New York: Exposition Press. p. 23.; Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. pp. 41-42.

institutions were founded as universities established primarily to teach courses related to industrial manufacturing. In three states, the land-grant designated institution was at first an integral part of the first state university, but was later established as a separate institution.

Some states chose existing schools of mining as their land-grant designated institution. Mining is the process of extracting raw materials from the Earth's crust, and minerals are an essential part of the foundation of an industrial economy. Mining schools impart skills and knowledge needed by the nation's industries. The course of study at a nineteenth-century mining school included mining engineering, civil engineering, metallurgy, geology, natural history, and analytical and applied chemistry. A mining engineer also needs a background in physics, mechanics, thermodynamics, and electrical engineering.⁹⁰ Mining engineering courses met the mechanic arts requirement of the Morrill Act of 1862. (See Table 6.4)

The 1862 Act created colleges that met the needs of all classes of people of the United States, not just the wealthy. The emphasis was on courses related to agriculture and industry, as contrasted with institutions of higher education that stressed primarily the classical studies, law, medicine, and training for the Christian ministry. But, Section 4 of the Act clearly states the intent to promote both a liberal and a practical education—the goal to endow, support, and maintain a college, in which courses in agriculture and the mechanic arts will be taught, shall be accomplished without excluding other scientific and classical studies.⁹¹ The other scientific studies required by the Act to be taught by the colleges would necessarily include those disciplines that are integral and complementary to the required “leading object” courses in agriculture and the mechanic arts: the physical, biological, and social sciences. The classical studies, integral to all academic disciplines,

90. Church, J. A. 1871. “Mining Schools in the United States”. *The North American Review* 112: 62-81. Monroe, H. S. 1904. Book Three, Section III: The School of Mines and Associated Schools in Matthews B., Pine J. B., Peck H. T., Munroe H. S., eds. *A History of Columbia University, 1754-1904*. New York: The Columbia University Press.

91. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) Section 304.

Table 6.4 Mining Schools in the United States —Year Established and Land-grant Status				
Institution (year established) – Associated Mining School	Year mining school est.	Control	Highest offering	Land-grant
(1) University of Alaska, Fairbanks (1917) – College of Engineering and Mines	1922	State	Doctorate	Yes
(2) University of Arizona (1885) – College of Engineering; Department of Mining and Geological Engineering	1885	State	Doctorate	Yes
(3) Colorado School of Mines	1874	State	Doctorate	No
(4) Columbia University (1754) – Henry Krumb School of Mines (formerly, The School of Mines of Columbia University, 1864)	1864	Private	Doctorate	No
(5) Southern Illinois University at Carbondale – The Department of Mining Engineering	1869	State	Doctorate	No
(6) University of Kentucky (1865) – College of Engineering, Department of Mining Engineering	1866	State	Doctorate	Yes
(7) Michigan Technological University (1885) [founded as Michigan Mining School] – Department of Geological and Mining Engineering and Science	1885	State	Doctorate	No
(8) Missouri University of Science and Technology (Formerly the University of Missouri – Rolla) – Mining Engineering Department	1870	State	Doctorate	No
(9) Montana Tech of the University of Montana – School of Mines and Engineering	1895	State	Master's	No

Table 6.4, continued: Mining Schools in the United States —Year Established and Land-grant Status				
Institution (year established) – Associated Mining School	Year mining school est.	Control	Highest offering	Land-grant
(10) University of Nevada, Reno (1874) Mackay School of Earth Sciences and Engineering – Dept. of Mining Engineering (1888)	1888	State	Doctorate	Yes
(11) New Mexico Institute of Mining and Technology	1889	State	Doctorate	No
(12) The Pennsylvania State University (1855), University Park, PA – College of Earth and Mineral Sciences (1859) – School of Mines (1896)	1896	State-related	Doctorate	Yes
(13) South Dakota School of Mines and Technology – Department of Mining Engineering	1885	State	Doctorate	No
(14) Southern Illinois University at Carbondale – Department of Mining Engineering: Mining and Mineral Resources Engineering	1869	State	Doctorate	No
(15) The University of Utah (Founded 1850) – College of Mines and Earth Sciences: Department of Mining Engineering	1901	State	Doctorate	No
(16) Virginia Polytechnic Institute & State University – Engineering, Department of Mining and Minerals Engineering	1872	State	Doctorate	Yes
(17) West Virginia University – Department of Mining Engineering Engineering /Mineral Resources	1867	State	Doctorate	Yes
Sources for Table 6.4 are listed by table entry number on the following page.				

Sources for Table 6.4:

- (1). University of Alaska - Fairbanks. 2010. The College of Engineering and Mines. (September 20, 2010; <http://www.alaska.edu/uaf/cem/>).
- (2). The University of Arizona. 2010. College of Engineering: Department of Mining and Geological Engineering. "About the College of Engineering". (September 20, 2010; <http://www.mge.arizona.edu/>, <http://enr.arizona.edu/about/>).
- (3). Colorado School of Mines. 2010. "Colorado School of Mines: History". (September 22, 2010; <http://www.mines.edu/History>)
- (4). Columbia University. 2010. The Fu Foundation School of Engineering and Applied Science, Earth & Environmental Engineering, Henry Krumb School of Mines. "Department Overview: History". (September 20, 2010; <http://www.eee.columbia.edu/pages/dptoverview/history/index.html>).
- (5). Southern Illinois University at Carbondale. 2010. "About SIU Carbondale". (September 22, 2010; <http://www.enr.siu.edu/mining/>, <http://www.siu.edu/aboutsiuc/>).
- (6). The University of Kentucky. 2010. "Welcome to the Department of Mining Engineering". (September 22, 2010; <http://www.enr.uky.edu/mng/general/mission.html>).
- (7). Michigan Technological University. 2010. "Mining Engineering History at Michigan Tech". (September 22, 2010; <http://www.mg.mtu.edu/mining/oldpix.htm>).
- (8). Missouri University of Science and Technology. 2010. "About Missouri S&T". (September 22, 2010; <http://www.mst.edu/about/>).
- (9). Montana Tech of the University of Montana. 2010. "Mining Engineering Overview and History". (September 22, 2010; http://www.mtech.edu/mines/mine_eng/overview.html).
- (10). University of Nevada - Reno. 2010. "History of Mackay". (September 27, 2010; <http://www.mines.unr.edu/mackay/school/history>).
- (11). New Mexico Institute of Mining and Technology. 2010. "Facts At a Glance: A Brief History of New Mexico Tech". (September, 27, 2010; <http://www.nmt.edu/facts-at-a-glance>).
- (12). The Pennsylvania State University. 2010. "College of Earth and Mineral Sciences: College History". (September 19, 2010; http://www.ems.psu.edu/about_ems/history)
- (13). South Dakota School of Mines and Technology. 2010. "125th Anniversary Timeline: History". (September 27, 2010; <http://125.sdsmt.edu/timeline/>).
- (14). Southern Illinois University Carbondale. 2010. "About SIUC". (September 27, 2010; <http://www.siu.edu/aboutsiuc/>).
- (15). University of Utah. 2000. "University of Utah Sesquicentennial, 1850 – 2000 Exhibition". (November 2, 2010, <http://www.lib.utah.edu/portal/site/marriottlibrary/menuitem.350f2794f84fb3b29cf87354d1e916b9/?vgnnextoid=642f06fc8affb110VgnVCM1000001c9e619bRCRD>).
- (16). Kinnear, D. L. 1999. *Historical Virginia Tech: A Short History of Virginia Tech, 1850-1974* (University Archives of Virginia Tech, University Libraries, Special Collections). (November 2, 2010, <http://spec.lib.vt.edu/arc/125th/kinnear/kinnear.htm>).
- (17). West Virginia University – College of Engineering and Mineral Resources. 2010. "Welcome to Mining Engineering". (November 2, 2010, <http://www.mine.cemr.wvu.edu/>).

Additional Sources for Table 6.4:

- Burke, J. M., ed. 2010. *2010 Higher Education Directory*. Reston, Virginia: Higher Education Publications, Inc.
- Mining and Metallurgical Society of America. 2010. "Education and Training". (November 2, 2010 <http://www.mmsa.net/educ.htm>).
- United States Department of Labor–Mine Safety and Health Administration. 2010. "Links to Mining Schools in the United States". (November 2, 2010, <http://www.msha.gov/siteinf2.htm>).

include language and the communication arts of writing and speaking.

The intellectual structure outlined in the Morrill Act of 1862—inter-related disciplines comprised of practical courses related to agriculture and the mechanic arts, other scientific studies, and classical studies—is a primary source of intellectual direction to the research programs conducted at the colleges, characterized in Section Five of the Act as “experiments.” A statute should be internally consistent and read as a harmonious whole.⁹² Therefore, the intellectual direction included in the Act’s Section 4 would apply to Section 5 of the Act, which included a requirement that the colleges submit reports on the results of “experiments,” without specifying any narrowly-defined research programs. The Act sought to provide unrestricted funding to basic or pure research programs related to agriculture and the mechanic arts to advance the fundamental knowledge needed to carry out the teaching objectives of the Act, producing a synthesis of teaching and research to meet state and national needs. Teaching, therefore, is dependent on research. Public research university instructional programs impart practical skills correlated with advances in knowledge, reaching beyond the scope of job training programs based on existing technology.

The Morrill Act expanded the existing intellectual structure of the colonial era liberal arts college with the inclusion of applied sciences. The subjects encompassed by Greek and Roman classical studies—history, politics, ethics, logic, and written and oral communication skills—were, and remain indispensable to courses in agriculture, the mechanic arts, and other sciences. The vital contributions of the humanities and social sciences to the physical and biological sciences, however, were sometimes unappreciated by nineteenth-century engineering educators. The Rensselaer brochure of 1826 stated that its program “promised nothing but experimental science...Its object is single and unique; and nothing is taught at the school but those branches which have a

92. WEX, Cornell University Law School, Legal Information Institute. 2012. “Statutory Construction”. (March 17, 2012, http://www.law.cornell.edu/wex/statutory_construction) See also: Kim, Y., Congressional Research Service. 2008. *Report for Congress. Statutory Interpretation: General Principles and Recent Trends*. Updated August 31, 2008. (March 17, 2012, <http://www.fas.org/sgp/crs/misc/97-589.pdf>) **Excerpt:** “A cardinal rule of construction is that a statute should be read as a harmonious whole, with its various parts being interpreted within their broader statutory context in a manner that furthers statutory purposes.” Page 2.

direct application to the ‘business of living.’⁹³ Other schools, including MIT and Cornell, developed humanities courses designed specifically for engineering students, which were part of the technical curriculum, as required by the provisions of the Morrill Act of 1862. It was soon understood by engineering educators that the social sciences—economics, political science, psychology, and sociology—were crucial to the education of an engineer, to industry, and to corporate management.⁹⁴

To illustrate the differences between the intellectual structure of the classical liberal arts curriculum and that of a course of studies at a Morrill Act college, we will compare Dartmouth’s 1822 prescribed course of studies with an agricultural college course of studies proposed in 1903 by the Committee on Instruction in Agriculture of the Association of American Agricultural Colleges and Experimental Stations (AAACES).⁹⁵

93. Noble, D. F. 1977. *America by Design: Science, Technology, and the Rise of Corporate Capitalism*. New York: Alfred A. Knopf. Quote appears on p. 29. Noble cites Ian Braley, “The Evolution of Humanistic-Social Courses for Undergraduate Engineers” (unpublished Ph.D. dissertation, Stanford University School of Education, 1961), p. 52. Professor David Franklin Noble (1945 - 2010), historian of technology, science and education, held positions at Massachusetts Institute of Technology, the Smithsonian Institution and Drexel University, as well as many visiting professorships. He last taught in the Division of Social Science, and the department of Social and Political Thought at York University in Toronto, Canada.

94. *Ibid.* p. 29-31.

95. See: True, A. C. 1929. *A History of Agricultural Education in the United States, 1785-1925*. United States Department of Agriculture, Miscellaneous Publication No. 36. Issued July, 1929. Washington, D.C.: United States Government Printing Office. pp. 240-241. The Association of American Agricultural Colleges and Experiment Stations (AAACES) was founded in 1887 by the presidents of land-grant universities. In 1919, its name changed to the Association of Land-Grant Colleges (ALGC). In 1926 its name changed again to Association of Land-Grant Colleges and Universities (ALGCU). In 1963 it merged with the National Association of State Universities (NASU) and the State Universities Association (SUA). NASU was founded in 1895 by presidents of state universities that did not receive benefits from the Morrill Act. The Association of Separated State Universities, founded in the 1920s by state universities without land-grant status, changed its name in 1930 to the SUA. In 1963 the NASU and the SUA merged with the ALGCU to form the National Association of State Universities and Land-Grant Colleges: NASULGC. NASULGC is the oldest national association of institutions of higher education. Effective March 30, 2009, NASULGC became the Association of Public and Land-grant Universities (APLU). Association of Public and Land-grant Universities. 2009. *Introducing the Association of Public and Land-grant Universities (APLU)*. Washington, D.C.: <http://www.aplu.org/NetCommunity/Page.aspx?pid=183> (Accessed: June 3, 2009) See also: <http://www.aplu.org/NetCommunity/Page.aspx?pid=1199> (Accessed: April 6, 2010). See also: Cook, C. E. 1998. *Lobbying for Higher Education: how colleges and universities influence federal policy*. Nashville, Tennessee: Vanderbilt University Press. pp. 20-21, and Hawkins, H. 1992. *Banding Together: The Rise of National Associations in American Higher Education, 1887-1950*. Baltimore, Maryland: The Johns Hopkins University Press. pp. xv-xvii, 196-201.

In a comparison of curriculum, it is important to consider the charter-defined purpose of the educational institution and the students it expects to enroll. The purpose of Dartmouth's prescribed course of study, as described by the College's charter, was to produce educated ministers of the Christian Church.⁹⁶ At the early University of Virginia, the majority of students were sons of the wealthy elite and attended the University to advance their social position.⁹⁷ In contrast to the study plans designed for the students of Dartmouth and Virginia, the Morrill Act of 1862 required the States to establish colleges where the leading object would be to teach courses in agriculture and the mechanic arts "in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions of life."⁹⁸ The term "industrial classes" refers to the occupational classification of industrial wage earners employed in manufacturing and other industries as contrasted to classifications such as federal and state officials, professionals, business proprietors and managers, officers of banks and companies, bankers, and merchants.⁹⁹

In our analysis of Dartmouth College, we learned that the prescribed courses listed in Dartmouth's 1822 catalog included Greek and Roman classics, rhetorical grammar, arithmetic, and algebra during the first year. In addition, the students were assigned exercises in reading, translation, English composition, and declamation (or rhetoric).

During the second year of studies, Dartmouth's students continued

96. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

Excerpt: "...and be a means to supply a great number of churches and congregations which are likely soon to be formed in that new country, with a learned and orthodox ministry..."

97. Wagoner, J. L., Jr. 1986. "Honor and Dishonor at Mr. Jefferson's University: The Antebellum Years". *History of Education Quarterly* 26: 155-179.

Description of students found on page 170, and in footnotes on the same page.

98. United States Congress. 1862. Chapter CXXX. – "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) Section 4.

99. See: Hansen, A. H. 1920. "Industrial Class Alignments in the United States". *Quarterly Publications of the American Statistical Association* 17: 417-425.

Economist Alvin H. Hansen (1887-1975) was Lucius N. Littauer Professor of Political Economy at Harvard University from 1937 to 1957.

their studies of the classics, completed courses in trigonometry, surveying, navigation, general history, and Belles Lettres, and were assigned exercises in English composition and declamation. Courses in English composition and declamation continued in the third year, with further study of the classics. All third year students completed required courses in trigonometry, geometry, chemistry, natural theology, natural philosophy (the study of the physical world), astronomy, moral and political philosophy, and Greek. Dartmouth's 1822 catalog lists the following as required readings for all fourth, or senior year students: Locke *On Human Understanding*, Edwards *on the Will*, Butler's *Analogy*, Stewart's *Elements of Philosophy*, Paley's *Evidences of Christianity*, and *The Federalist*. Fourth year academic exercises included dissertations, forensic disputes, and declamations.

In contrast to Dartmouth's 1822 prescribed course of studies with its emphasis on the classics, the 1903 AAACES proposed four-year course of study in agriculture is focused on practical studies and includes only a few courses in the humanities and social sciences. The first year's subjects were physics, chemistry, geometry, trigonometry, English, and modern language. The second year's courses continued the study of English and modern language added a course in drawing, and introduced the core agricultural courses. These were zootechny and agronomy, agricultural chemistry, botany, and meteorology. Courses in zootechny, agronomy, botany, and modern languages were extended into the third year, and to these were added courses in zoology, geology, physiology, and psychology. The fourth year's courses included agricultural courses in dairying, farm mechanics, rural economics, veterinary medicine, horticulture, and forestry. In the last year of the program, during which students were allowed to choose elective courses to supplement the prescribed curriculum, courses in history, political economy, and ethics were introduced.¹⁰⁰

The agricultural courses outlined by the AAACES are similar to the those listed in 1824 by the Rector and Visitors of the University of Vir-

100. True, A. C. 1929. *A History of Agricultural Education in the United States, 1785-1925*. United States Department of Agriculture, Miscellaneous Publication No. 36. Issued July, 1929. Washington, D.C.: United States Government Printing Office. p. 241. Alfred Charles True (1853-1929) worked for the U.S. Department of Agriculture. He was director of the Office of Experiment Stations from 1893-1915.

ginia for that institution's School of Natural History. The University of Virginia courses included botany, zoology, mineralogy, chemistry, geology, and rural economy (agriculture), all to be taught by a single professor.¹⁰¹

By 2009, the structure of the study of agriculture at a land-grant university had more complexity than that of the four-year course of study outlined in 1903. For example, the College of Agricultural and Environmental Science at the University of California, Davis, is divided into Agricultural Sciences, Environmental Sciences, and Human Sciences. Within these three broad divisions are twenty-one departments, including: Animal Science, Biological and Agricultural Engineering, Entomology, Nematology, Plant Sciences, Crop and Ecosystem Sciences, Agricultural and Resource Economics, Food Science and Technology, and Nutrition.¹⁰² Undergraduate majors leading to the Bachelor of Science degree at UC Davis include Agricultural Management and Rangeland Resources, Animal Biology, Animal Science, Avian Sciences, Biotechnology, Crop Science and Management, Entomology, and Plant Biology, and Viticulture.¹⁰³

This quick look at the evolution of applied agricultural sciences in university curricula partially illustrates the expansion of the intellectual structure. This expansion promotes the creation and eventual separation of disciplines. While Dartmouth's 1822 prescribed course of studies did include general science courses in astronomy, chemistry, and natural philosophy, applied sciences were absent, except for those in surveying and navigation. In 1824, the University of Virginia's Board of Visitors assigned one professor the responsibility for teaching all of the courses organized under the School of Natural History, including a course in

101. Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Russell & Russell, Inc., New York, (1931) 1964), "Enactment of the Board of visitors of the University of Virginia, April 7, 1824, Jefferson, Madison, Johnson, Cocke, and Cabell being Present" in Appendix M, "Organization and Government of the University," (*Library Ed.*, XIX, 433-436), pp. 269-270.

102. "The Department of Animal Science, originally the Division of Animal Husbandry, originated in Berkeley in 1901. The division moved to Davis in 1908 and 1909 and later became the Department of Animal Husbandry. The department's name changed to Animal Science in 1967." See: <http://animalscience.ucdavis.edu/department/index.htm> (Accessed: August 26, 2008).

103. University of California, Davis. 2006. *General Catalog, University of California, Davis, 2006-2008*. Davis, California: Office of the University Registrar, University of California, Davis.

rural economy. In contrast to the AAACES 1903 agriculture program, which required each enrolled student to complete courses in all topics of agricultural studies, twenty-first-century undergraduate students at UC Davis may select a specific topic of agricultural study for their major. In contrast to the single professor of the 1824 University of Virginia School of Natural History, in 2008 the Animal Science Department at UC Davis department claimed forty-one teaching and research faculty.¹⁰⁴

Physical Structure

The Morrill Act of 1862 influenced the physical structure of universities through its intellectual structure requirements and its stipulations for the use of the funds derived from the sale of lands granted to the states. With approval from a state's legislature, up to ten percent of the land-grant endowment's principal could be used to purchase land for building sites and experimental farms; but, the endowment could not be applied to the construction, repair, or maintenance of buildings.¹⁰⁵ Additional funds from other sources were needed for the development of the institution's physical structure to provide support the required intellectual components of the Act.

The Act's emphasis on courses related to agriculture and the mechanic arts led to the design and development of specialized facilities to support the physical and biological sciences. For example, courses in agriculture required laboratory classrooms to teach chemistry and biol-

104. See the webpages for the Department of Animal Science in the College of Agricultural and Environmental Science at the University of California, Davis: <http://animalscience.ucdavis.edu/faculty/index.htm> and <http://animalscience.ucdavis.edu/department/index.htm>. Accessed: August 26, 2008.

105. On May 23, 1916, the Secretary of the Interior ruled that the income derived from the sale of public lands granted for the endowment of colleges under the Morrill Act of 1862 may not be used by the states for the purchase of land. See: National Association of State Universities and Land-Grant Colleges. 2008. *The Land-Grant Tradition*. Washington, D.C.: National Association of State Universities and Land-Grant Colleges (NASULGC). <http://www.nasulgc.org/>. Accessed: September 9, 2008. p. 12. NASULGC became the Association of Public and Land-grant Universities (APLU), effective March 30, 2009. *The Land Grant Tradition* is available at: <http://www.aplu.org/NetCommunity/Document.Doc?id=780> (accessed: January 22, 2010). This ruling also appears in: Brunner, H. S. 1966. *Land-Grant Colleges and Universities, 1862-1962*. Washington, D.C.: Office of Education (U.S. Department of Health, Education, and Welfare - DHEW), National Institute of Education. Printed 1962; reprinted 1966. Educational Resources Information Center. ERIC #: ED167027. p. 58.

ogy. In addition, agriculture required greenhouses and facilities for animal husbandry, including dairy barns and poultry houses.¹⁰⁶ Specialized laboratories, workshops, and equipment were also required for courses such as electrical engineering, analytical and industrial chemistry, mining geology and engineering, metallurgy, and steam engineering.¹⁰⁷

While specialized buildings to support courses in agriculture and the mechanic arts could not be built with funds from the Act's endowment, the interest generated from the capital of the Act's perpetual fund could be used to provide equipment related to teaching these courses. In addition to textbooks and manuals, agricultural courses required specialized equipment for soil analysis, seed-breeding, and dairying (e.g., milking machines).¹⁰⁸

In 1910, many agricultural colleges had farms that were used in connection with their agricultural courses. These farms were used to grow test crops, demonstrate methods of fertilization, irrigation, and harvesting, and feed the college's livestock. Some colleges had orchards.¹⁰⁹

Looking at the Morrill Act through our three structures method of analysis reveals clear connections between its administrative structure's management mechanisms (in this case the allowable applications of the Morrill Act's endowment funds), its intellectual structure's agriculture and mechanic arts branches of learning, and the specialized buildings and instructional lands of a land-grant university's physical structure.

THE HATCH ACT OF 1887

The Hatch Act of 1887, approved by Congress on July 2, established

106. See: True, A. C. 1929. *A History of Agricultural Education in the United States, 1785-1925*. United States Department of Agriculture, Miscellaneous Publication No. 36. Issued July, 1929. Washington, D.C.: United States Government Printing Office. pp. 225-230.

107. Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. See Chapter 3, pp. 39-65. Grayson does not provide a description of nineteenth-century engineering and mechanical arts classrooms; however, he does provide a few photographs of early twentieth-century college laboratories and workshops for courses in chemistry and engineering in Chapter 4, pp. 67-117.

108. True, A. C. 1929. *A History of Agricultural Education in the United States, 1785-1925*. United States Department of Agriculture, Miscellaneous Publication No. 36. Issued July, 1929. Washington, D.C.: United States Government Printing Office. pp. 225-231.

109. *Ibid.* p. 230.

agricultural experiment stations connected with the colleges established under the Morrill Act of 1862. The Act's intent was to promote investigation and experimentation in agricultural science to acquire useful and practical information on agricultural subjects. The Act required the experiment stations to submit annual reports of their operations to the governor of their state or territory and send copies to the other established experiment stations, to the Secretary of Agriculture, and to the Treasury of the United States. In addition to the annual report, the Act required the stations to publish progress bulletins at least once in three months, and to send copies of these bulletins to each newspaper in the state and to individual farmers that requested copies. The Act provided fifteen thousand dollars annually to each state and territory to support the stations and the required research.¹¹⁰ Section 2 of the 1887 Act explains its goals:

"...it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."¹¹¹

Williams says that the science of agriculture emerged in the latter part of the nineteenth century, after the establishment of agricultural experiment stations under the provisions of the Hatch Act of 1887.¹¹²

110. 1887. *The Hatch Act of 1887 Establishing Agricultural Experiment Stations*. Approved March 2, 1887 (24 Stat. 440). Amended: 7 U.S.C. 361a et seq. United States: <http://www.iahees.iastate.edu/projects/hatch.html>, <http://www.csrees.usda.gov/about/offices/legis/pdfs/hatch.pdf>. Accessed: September 9, 2008.

111. *Ibid.*

112. Williams, Roger L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. p. 26-27. Williams cites Margaret Rossiter, "The Organization of the Agricultural

Conflicts between those who supported agricultural programs in the land-grant colleges and proponents of the mechanical arts thwarted attempts to secure federal funding for engineering experiment stations. At the core of the disagreement was a question about the relationship between agriculture and the mechanic arts. Many thought that the mechanical arts should be subordinate to agricultural interests. Although many attempts were made by proponents of engineering education in the early twentieth century to convince Congress to pass a bill to provide support for the establishment of stations for experimental engineering research, these efforts were not successful and engineering departments at land-grant institutions did not receive federal support.¹¹³ Instead, engineering and mechanic arts programs at land-grant institutions relied on their state legislatures for support. The first engineering experiment station was established in 1903 at the University of Illinois, a land-grant institution chartered as the Illinois Industrial University in 1867. After working for several years toward a goal of securing federal funding for the support of an engineering experiment station similar to the federally-funded agricultural experiment stations, the head of the Department of Engineering proposed that such an institution be established instead with state funding. The Engineering Experiment Station of the University of Illinois was established by an act of the university's Board of Trustees. Its purpose was to stimulate engineering education and investigate "problems of especial importance to professional engineers and to the manufacturing, railway, mining and industrial interests of the state and country,"¹¹⁴ "along those

Sciences" in *The Organization of Knowledge in Modern America, 1860-1920*, Alexander Oleson and John Voss, ed. (Baltimore: Johns Hopkins University Press, 1979) p. 213.

113. The Society for the Promotion of Engineering Education (SPEE), established in 1893, lobbied for federal support of engineering education. Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. p. 70-75. Grayson says that research in engineering was not thought to be necessary because technological advancements were being made by individual entrepreneurs without the benefit of government subsidies. p. 82. See also: Harmon, D. L. 2005. "Collegiate Conflict: Internal Dissension at Land-Grant Colleges and the Failure to Establish Engineering Experiment Stations". Pages 7-25 in Marcus A. I., ed. *Engineering in a Land-Grant Context: The Past, Present, and Future of an Idea*. West Lafayette, Indiana: Purdue University Press.

114. Paine, E. B. 1915. "The Engineering Experiment Station of the University of Illinois" [To be presented at the 314th Meeting of the American Institute of Electrical Engineers, St. Louis, MO, October 20, 1915]. *Proceedings of the American Institute of Electrical Engineers XXXIV: 2421-2427*. p. 2421. Ellery Burton Paine (1875-1976) was professor of electrical

lines that promise to aid the greatest number of its people.”¹¹⁵ It was not a commercial testing laboratory, and no research programs were conducted “with the object of obtaining information of chief value to some individual or company,”¹¹⁶ or “for the sole benefit of the inventor.”¹¹⁷ However, since some investigations required expensive equipment and procedures, the Station welcomed cooperative research partnerships with individuals or organizations. In cases where the research program promised results of scientific interest, or if the University’s engineering laboratories were particularly appropriate to the work, the Station would engage in private research projects, but only “in cases where the chief purpose was to establish fundamental principles and to develop scientific information of vital importance that would have a general application to a wide group of engineers or manufacturers.”¹¹⁸

Writing in 1921, Charles Russ Richards, Dean of the College of Engineering at the University of Illinois, said the great expense of organizing and operating an independent research laboratory, “and the dif-

engineering (1907-1944), and the head of the University of Illinois Department of Electrical Engineering from 1913 until his retirement in 1944.

115. Breckenridge, L. P. 1906. “The Engineering Experiment Station of the University of Illinois.” Bulletin No. 3 of the University of Illinois Engineering Experiment Station. Urbana: University of Illinois. p. 5. Lester Paige Breckenridge (1858-1940) was the Director of the Engineering Experiment Station at the University of Illinois.

See also: Baker, I. O., King, E. E. 1947. Chapter XXV: “The Engineering Experiment Station”. Pages 767-832. *A History of the College of Engineering of the University of Illinois 1868-1945, Part II*. Urbana: The University of Illinois.

116. Paine, E. B. 1915. “The Engineering Experiment Station of the University of Illinois” [To be presented at the 314th Meeting of the American Institute of Electrical Engineers, St. Louis, MO, October 20, 1915]. *Proceedings of the American Institute of Electrical Engineers XXXIV*: 2421-2427. p. 2421.

117. Breckenridge, L. P. 1906. “The Engineering Experiment Station of the University of Illinois.” Bulletin No. 3 of the University of Illinois Engineering Experiment Station. Urbana: University of Illinois. p. 23. See also: Richards, C. R. 1921. “The Functions of the Engineering Experiment Station of the University of Illinois.” *University of Illinois Engineering Experiment Station, Circular No. 9, February 14, 1921*. Urbana: The University of Illinois. Page 5: “A few of the large industrial organizations have developed splendidly equipped research laboratories devoted to the solution of problems of fundamental importance to their own interests and not infrequently to the advancement of pure science. Other organizations have developed laboratories ostensibly devoted to research but really devoted to routine testing incident to the manufacture of their product and to the development of new machines, products, or processes.”

118. Baker, I. O., King, E. E. 1947. Chapter XXV: “The Engineering Experiment Station”. Pages 767-832. *A History of the College of Engineering of the University of Illinois 1868-1945, Part II*. Urbana: The University of Illinois. p. 771.

faculty of securing properly trained and competent men to do research work, and the failure to recognize the nature of the problems to be solved are likely to bring many of these laboratories, as well as research in general, into disrepute. In many instances, more satisfactory results may be obtained at a smaller cost through cooperation with ... public laboratories.”¹¹⁹

Results of the scientific investigations directed by the University of Illinois and conducted at the Station were published in bulletins distributed to all interested parties. The College of Engineering department heads administered the Engineering Experiment Station, and members of the instructional staff of the College of Engineering, graduate research fellows, and full time special investigators conducted research in the following areas: architectural engineering, chemistry, ceramic engineering, civil engineering, electrical engineering, mechanical engineering, mining engineering, municipal and sanitary engineering, physics, railway engineering, and theoretical and applied mechanics.¹²⁰ Research projects often required collaboration between members of the same, or different university departments. The Station and the College of Engineering also collaborated with state agencies, such as the State Water Survey, the State Geological Survey, and the Division of Illinois Highways.^{121 122}

In 1904, an engineering experiment station was established at Iowa State College. Following Iowa and Illinois, similar engineering research facilities were soon established at many other public universities.¹²³ A

119. Richards, C. R. 1921. “The Functions of the Engineering Experiment Station of the University of Illinois.” *University of Illinois Engineering Experiment Station, Circular No. 9, February 14, 1921*. Urbana: The University of Illinois. p. 5.

120. Paine, E. B. 1915. “The Engineering Experiment Station of the University of Illinois” [To be presented at the 314th Meeting of the American Institute of Electrical Engineers, St. Louis, MO, October 20, 1915]. *Proceedings of the American Institute of Electrical Engineers XXXIV: 2421-2427*. Pages: 2421, 2422, 2425, 2426.

121. Baker, I. O., King, E. E. 1947. Chapter XXV: “The Engineering Experiment Station”. Pages 767-832. *A History of the College of Engineering of the University of Illinois 1868-1945, Part II*. Urbana: The University of Illinois. p. 771.

122. For more detail on the historical relation between higher education and industry in the United States, see: Noble, D. F. 1977. *America by Design: Science, Technology, and the Rise of Corporate Capitalism*. New York: Alfred A. Knopf. Part One: Sections I: The Wedding of Science to the Useful Arts—I / The Rise of Science-based Industry, and Section II: The Wedding of Science to the Useful Arts—II / The Development of Technical Education.

123. Harmon, D. L. 2005. “Collegiate Conflict: Internal Dissension at Land-Grant Colleges

survey of land-grant colleges published in 1930 reported that by 1928, thirty-five land-grant institutions had engineering experiment stations and by 1928 these stations had published over 800 reports on research results; however, it is also reported that only five of these received state support, at least ten exist only on paper, and fewer than ten receive support sufficient to carry out engineering research.¹²⁴ The establishment of engineering experiment stations, an element of the physical structure, brought a change to the intellectual structure of engineering programs: the appearance of full-time research professors, and an emphasis on mathematics and physics in the engineering curriculum.¹²⁵

Professor David F. Noble, historian of technology, science, and education, says that by the close of the nineteenth century many university engineering programs were unable to keep up with the changing needs of industry. University lab equipment had become inadequate or obsolete. In response, between 1890 and 1915, many companies established private in-house training programs, or “special apprentice programs.” These programs were the foundation for the development of cooperative programs between industry and the university.¹²⁶

In 1914, the Smith-Lever Act established the cooperative agricultural extension services connected to the 1862 and 1890 land-grant institutions. Through publications, practical field demonstrations, and other methods of instruction in agriculture and home economics, extension services bring knowledge from the land-grant colleges and universities to people that do not attend the colleges or live near them. These programs extend the university’s intellectual structure beyond the conven-

and the Failure to Establish Engineering Experiment Stations”. Pages 7-25 in Marcus A. I., ed. *Engineering in a Land-Grant Context: The Past, Present, and Future of an Idea*. West Lafayette, Indiana: Purdue University Press. pp. 7-25.

Grayson, L. P. 1993. *The Making of an Engineer: An Illustrated History of Engineering Education in the United States and Canada*. New York: John Wiley & Sons, Inc. p. 82.

124. Klein, A. J. 1930. *Survey of Land-grant Colleges and Universities*. Washington, D.C.: United States Office of Education, Published by U.S. Government Printing Office. pp. 815-816.

125. See: Harmon, D. L. 2005. “Collegiate Conflict: Internal Dissension at Land-Grant Colleges and the Failure to Establish Engineering Experiment Stations”. Pages 7-25 in Marcus A. I., ed. *Engineering in a Land-Grant Context: The Past, Present, and Future of an Idea*. West Lafayette, Indiana: Purdue University Press. pp. 7-9.

126. Noble, D. F. 1977. *America by Design: Science, Technology, and the Rise of Corporate Capitalism*. New York: Alfred A. Knopf. p. 29.

tional boundaries of its physical structure. Smith-Lever Act funds, which the states must match 100% from non-federal sources, cannot be applied to the purchase, erection, or repair of buildings, to the purchase or rental of land, or to courses and lectures in the colleges. The Act requires the colleges to submit an annual report of their extension services to the Secretary of Agriculture and the Secretary of the Treasury of the United States.¹²⁷ As amended in 2002, the Smith-Lever Act states:

“Cooperative agricultural extension work shall consist of the development of practical applications of research knowledge and giving instruction and practical demonstrations of existing or improved practices or technologies in agriculture, uses of solar energy with respect to agriculture, home economics, and rural energy, and subjects related thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing; and this work shall be carried out in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges ... receiving the benefits of the Act.”¹²⁸

In the twenty-first century, the USDA distributes Hatch Act grants for agricultural research on an annual basis to the Agricultural Experiment Stations (State Agricultural Experiment Station, or SAES) connected to Morrill Act colleges and universities. The SAESs must provide 100 percent matching funds for their proposed research projects.¹²⁹ The USDA provides a list of possible research areas:

“... soil and water conservation and use; plant and animal production, protection, and health; processing, distribution, safety, marketing, and

127. Smith-Lever Act of May 8, 1914, Ch. 79, 38 Stat. 372, (7 U.S.C. 341 et seq.) “An Act to provide for cooperative agricultural extension work between the agricultural colleges in the several states receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture.” The Smith-Lever Act Amendment of 1953 consolidated laws related to Extension programs and established new funding procedures.

128. 1914. Smith-Lever Act. 7 U.S.C. 341 et seq. (Act of May 8, 1914, ch. 79, 38 Stat. 372). The United States of America: United States Department of Agriculture. Cooperative State Research, Education, and Extension Service. <http://www.csrees.usda.gov/about/offices/legis/pdfs/smithlev.pdf>. Accessed: September 14, 2008.

129. For more information about the Hatch Act Formula Grant, see: United States Department of Agriculture. 2008. *Hatch Act Formula Grant: Cooperative State Research, Education, and Extension Service*. <http://www.csrees.usda.gov/business/awards/formula/hatch.html>. Accessed: September 12, 2008.

utilization of food and agricultural products; forestry, including range management and range products; multiple use of forest rangelands, and urban forestry; aquaculture; home economics and family life; human nutrition; rural and community development; sustainable agriculture; molecular biology; and biotechnology.”¹³⁰

THE SECOND MORRILL ACT OF 1890

The land-grant colleges struggled for their existence under the terms of the Morrill Act of 1862. The endowments generated by Act provided inadequate support, and the state legislatures were not a dependable source of additional funds.¹³¹ Even those historians that have written in support of the land-grant colleges characterize their first twenty years as “dismal.”¹³² Eldon L. Johnson points out the disconnections between establishing a college, supporting it, and controlling (or governing) it. He says that the states viewed the federal land grants as “an escape from state responsibility and taxation.” Moreover, the states cut faculty salaries, terminated faculty positions, and rehired at reduced pay. University libraries were not given the support they needed. Land-grant designations in New England states were assigned to existing private institutions to avoid the costs of establishing new facilities.¹³³

The Second Morrill Act of 1890 (also known as the Agricultural College Act of 1890) authorized additional appropriations for the endowment and support of those colleges and universities that were established in accordance with the Morrill Act of 1862.

Roger L. Williams notes that the Second Morrill Act made it clear that the land-grant colleges were not self-supporting, and this realiza-

130. Ibid.

131. Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. pp. 45-46.

—. 1988. *George W. Atherton and the beginnings of federal support for higher education*. Doctoral Dissertation. The Pennsylvania State University. pp. 6-7.

132. —. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. p. 82. According to Williams, Nevins, Ross, and Eddy have characterized the early years of the land-grant colleges as “dismal”.

133. Johnson, E. L. 1981. “Misconceptions About the Early Land-Grant Colleges”. *The Journal of Higher Education* 52: 333-351. p. 343.

tion resulted in a large increase in state funding for these institutions.¹³⁴ Under the 1890 Act, each state and territory received an initial grant of \$15,000, with an annual increase of \$1000 for ten years; thereafter the total annual appropriation was \$25,000 to each state. In 1907, the Nelson Amendment increased this annual amount to \$50,000 per state.¹³⁵ This money was to be applied to instruction in “agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to facilities for such instruction.”¹³⁶ The Commissioner of Education was responsible for certifying to the Secretary of the Interior that the funds appropriated under the provisions of the 1890 Act were spent according to law.¹³⁷

The 1890 Act, like the 1862 Morrill Act, provided no money for the purchase, erection, preservation, or repair of buildings. Expanded and

134. Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. pp. 154-155.

135. In 1906, Senator Knute Nelson of Minnesota attached a bill to increase the annual grant in support of the land-grant institutions to a large agriculture appropriations bill enacted by the United States Congress. Nelson’s bill is known as the Nelson Amendment of 1907. This amendment included a provision to allow the land-grant institutions to use part of their endowment for the preparation of instructors to teach courses related to agriculture and the mechanic arts.

1907. *An Act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and eight*. (The Nelson Amendment of 1907): *The Statutes at Large of the United States of America from December, 1905, to March, 1907*. Vol. XXXIV, Part I. Edited, printed, and published by authority of Congress under the direction of the Secretary of State. Washington, D.C., Government Printing Office, 1907. pp. 1281-1282. See also: McClure, A. F., Chrisman, J. R., Mock, P. 1985. *Education for work: the historical evolution of vocational and distributive education in America*. Rutherford, New Jersey: Fairleigh Dickinson University Press. p. 44.

136. 7 USC 322. From the U.S. Code Online via GPO Access (wais.access.gpo.gov) (Laws in effect as of January 3, 2006). Title 7 – Agriculture, Chapter 13 – Agricultural and Mechanical Colleges, Subchapter II, College-Aid Annual Appropriation, Sec. 322. Annual Appropriation. A 1981 amendment substituted the phrase “food and agricultural sciences” for the 1890 Act’s language which stated that the money was to be applied to instruction in “agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to facilities for such instruction.” Also in 1981, the Act’s provision that part of the money could be used to prepare instructors for teaching the “elements of agriculture and the mechanic arts” was amended to read the “elements of food and agricultural sciences.” See: 7 USC 322.

137. United States Bureau of Education. 1920. Report of the Commissioner of Education for the Year Ended June 30, 1920. Washington, D.C.: Government Printing Office. p. 121.

clarified reporting requirements called for greater accountability from the colleges. The president of each college had to submit an annual report to the Secretary of Agriculture, the Secretary of Education,¹³⁸ and all the other colleges that had been endowed under the Act. Under the 1890 Act, the annual reports had to include more detail than those required by the 1862 Act, including:

“ ... the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their cost and results, and such other industrial and economical statistics as may be regarded useful.”¹³⁹

Williams says that the 1890 Act fostered a closer relationship between the states and their colleges; but there was a growing perception that these colleges were national institutions that “owed as much fealty to the federal government as to their states.”¹⁴⁰

In Chapter Seven, we look at the provisions of the Second Morrill Act of 1890 that encouraged the founding of seventeen publicly-controlled black land-grant colleges.

138. The Secretary of Education was located in the Department of the Interior. An Independent Department of Education was established by the Department of Education Act (14 Stat. 434), March 2, 1867. It was abolished and superseded by the Office of Education in the Department of the Interior by the general appropriation act for Fiscal Year 1869 (15 Stat. 106), July 20, 1868. The Office of Education was redesignated the Bureau of Education, effective July 1, 1869, by the general appropriation act for fiscal year 1870 (15 Stat. 291), March 3, 1869. The Bureau was continued as the Bureau of Education under succeeding appropriation acts until 1930. The Bureau was transferred to the Federal Security Agency by Reorganization Plan No. 1 of 1939, July 1, 1939; to the newly created Department of Health, Education, and Welfare (HEW) by Reorganization Plan No. 1 of 1953, effective April 11, 1953; and to newly established Education Division, HEW, effective July 1, 1972, by the Education Amendments of 1972 (86 Stat. 327), June 23, 1972. The Bureau of Education was abolished, effective May 4, 1980, by Department of Education Organization Act, October 17, 1979 (93 Stat. 668), and succeeded by the Department of Education. National Archives and Records Administration. 2012. Records of the Office of Education. (May 17, 2012, <http://www.archives.gov/research/guide-fed-records/groups/012.html>)

139. 1890. “Second Morrill Act”. Act of August 30, 1890, ch. 841, 26 Stat. 417, 7 U.S.C. 322 et seq. United States: <http://www.csrees.usda.gov/about/offices/legis/secondmorrill.html> (Accessed: June 25, 2009).

140. Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement*. University Park, Pennsylvania: The Pennsylvania State University Press. p. 155.

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1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

1819. *The Trustees of Dartmouth College v. Woodward*. 17 U.S. 518; 4 L. Ed. 629; 1819 U.S. Lexis 330; 4 Wheat. 518: Supreme Court of the United States.

1823. *Johnson and Graham's Lessee v. M'Intosh*, 21 U.S. (8 Wheat) 543. 21 U.S. (8 Wheat) 543 (1823). United States Supreme Court.

1862. *An Act to secure Homesteads to actual Settlers on the Public Domain*. Act of May 20, 1862, ch. 75, §§ 1-8, 12 Stat. 392. United States: The Statutes at Large, Treaties, and Proclamations, of the United States of America. From December 5, 1859, to March 3, 1863. Volume XII.

1863. *An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts*. Thirty-Seventh Congress, Session II, Chapter 130, Sections 1-8. Approved July 2, 1862. Pages 503-505 in Sanger G. P., ed. *The Statutes at Large, Treaties, and Proclamations of the United States of America from December 5, 1859 to March 3, 1863/ By authority of Congress*. "A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875." Library of Congress. (May 25, 2008, <http://memory.loc.gov/ammem/amlaw/>) See also: *Statutes at Large, 1789-1875*, Volumes 1 to 18. <http://memory.loc.gov/ammem/amlaw/lwslink.html>, Vol. XII. Boston: Little, Brown and Company.

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1890. "Second Morrill Act". Act of August 30, 1890, ch. 841, 26 Stat. 417, 7 U.S.C. 322 et seq. United States: <http://www.csrees.usda.gov/about/offices/legis/secondmorrill.html> (Accessed: June 25, 2009).

1907. *An Act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and eight.* (The Nelson Amendment of 1907): "The Statutes at Large of the United States of America from December, 1905, to March, 1907." Vol. XXXIV, Part I. Edited, printed, and published by authority of Congress under the direction of the Secretary of State. Washington, D.C., Government Printing Office, 1907.

1914. Smith-Lever Act. 7 U.S.C. 341 et seq. (Act of May 8, 1914, ch. 79, 38 Stat. 372). The United States of America: United States Department of Agriculture. Cooperative State Research, Education, and Extension Service. <http://www.csrees.usda.gov/about/offices/legis/pdfs/smithlev.pdf>. Accessed: September 14, 2008.

1955. *Tee-Hit-Ton Indians v. United States*, 348 U.S. 272: United States Supreme Court.

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CHAPTER 7

Higher Education in the United States for Women, Blacks, and Native Americans

Our analysis of the evolution of the public university in the United States would be incomplete if it were confined to looking at the three structures of Dartmouth College, the University of Virginia, and the establishment of land-grant institutions under the provisions of the Morrill Act of 1862. Women were not admitted to Dartmouth College or the University of Virginia until the second half of the twentieth century.¹ This chapter looks at the history of higher education for women, Black Americans, and Native Americans. As part of this history, we review the relation of the Morrill Act of 1862 and the education of women. We also examine the provisions of the Second Morrill Act of 1890 that provided increased access to higher education for Black Americans and federal funding to Historically Black Colleges and Universities (HBCUs). The HBCUs were not explicitly considered under the provisions of the Morrill Act of 1862. In 1994, federal legislation brought tribally-controlled colleges that serve Native American com-

1. Universities that were not established exclusively for women did open their doors to women in the nineteenth century. One of these is Oberlin College, a private institution founded in 1833. Another is the University of California, founded in 1868. The 1879 California Constitution, Article IX, Section 9, includes this statement: "No person shall be debarred admission to any of the collegiate departments of the University on account of sex." California Legislature. 1879. Constitution of the State of California. The Statutes of California passed at the Twenty-third Session of the Legislature, 1880. Sacramento. State Office: J.D. Young, Supt. State Printing. Facsimile available at California State Archives. (August 30, 2011, <http://www.sos.ca.gov/archives/collections/1879/archive/1879-constitution.pdf>).

When classes began at UC Berkeley in 1873 upon completion of North and South Halls, 167 men and 222 women students enrolled. See: The Regents of the University of California. 2004. *General History: the ten campuses—Berkeley: Historical Overview*. University of California History, Digital Archives. (June 17, 2009, http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/overview.html, and http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/index.html).

Oberlin College enrolled women as students along with men from its opening in 1833. Lasser, C. 2009. *Beyond Coeducation: Oberlin College and Women's History*. Oberlin College. <http://www.oberlin.edu/external/EOG/womenshist/women.html> (Accessed: June 17, 2009).

munities into the family of land-grant institutions.

DARTMOUTH COLLEGE AND WOMEN AS STUDENTS

The Charter of Dartmouth College, granted in 1769, does not specifically define Dartmouth's students as being male or female. It addresses the education of "children," the "English," "savages," "youth of the Indian tribes," "Indian natives," "children of pagans," "English youth," "such students as shall be admitted into said Dartmouth College," and "any others."² As defined by the Oxford English Dictionary, the term "youth," in the seventeenth through nineteenth centuries, typically referred to a young man, between boyhood and mature age.³

The admittance of women as students to Dartmouth College was not discussed until 1958-59. The first full-time female student was admitted to the graduate department in 1961. Undergraduate women students were admitted to Dartmouth in the 1960s through summer and exchange programs. During the 1968-69 academic year, female exchange students at Dartmouth filed a complaint, alleging discrimination against women, with the Equal Employment Opportunity Commission. In 1971, the faculty passed a resolution calling for the matriculation of women at Dartmouth by 1972. As a result, about three hundred fifty women enrolled in Dartmouth's undergraduate program in the fall of 1972.⁴

Dartmouth's final decision to admit women as regular undergraduate students in the early 1970s was not an isolated event in United States history. The women's civil rights movement of the late 1960s and early 1970s brought attention to the educational and economic inequities suffered by women, which led to class action lawsuits being filed against colleges and universities. During the summer of 1970,

2. 1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

3. *The Oxford English Dictionary*. 1989 2nd ed. "youth": OED Online. Oxford University Press. 5 Nov 2008, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50290255>. Especially sense 6a.

4. Forcier, M. F. D. 2004. "'Men of Dartmouth' and 'The Lady Engineers': Coeducation at Dartmouth College and Lehigh University" in Miller-Bernal L., Poulson S. L., eds. *Going Coed: Women's Experiences in Formerly Men's Colleges and Universities, 1950-2000*. Nashville: Vanderbilt University Press. pp. 159-160.

Congressional hearings on discrimination against women were held in Washington before a special House Subcommittee on Education.⁵ Two years later, President Richard Nixon signed Title IX of the Education Amendments of 1972 into law.⁶ Title IX, which prohibits discrimination based on sex at particular educational institutions that receive federal assistance, states:

“No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance, except that: ... in regard to admission to educational institutions, this section shall apply only to institutions of vocational education, professional education, and graduate higher education, and to public institutions of undergraduate higher education.”⁷

Federal financial assistance includes research grants, the use or rent of federal land or property at below market value, and other types of assistance provided to both private and public institutions. It also includes scholarships, grants, and loans provided to students. To be subject to Title IX regulations, an educational institution must receive federal assistance.⁸ In our analysis of the University of Virginia, a publicly-controlled institution that also historically admitted only men, we review a similar set of conflicts over the admission of women that occurred during the same point in the twentieth century as those at Dartmouth.

5. 1970a. *Discrimination Against Women*. Special Subcommittee on Education of the Committee on Education and Labor. Washington, D.C.: U.S. Government Printing Office. See also: U.S. Department of Justice. 2001. *Title IX Legal Manual*. Washington, D.C.: United States Department of Justice, Civil Rights Division. <http://www.usdoj.gov/crt/cor/coord/ixlegal.pdf> (accessed: November 13, 2008). pp. 16-19. In addition, see: Presidential Task Force on Women's Rights and Responsibilities. 1970. *A Matter of Simple Justice: The Report of the President's Task Force on Women's Rights and Responsibilities*: U.S. Government Printing Office, Washington, D.C.

6. Title IX was signed into law in June 1972. U.S. Department of Justice. 2001. *Title IX Legal Manual*. Washington, D.C.: United States Department of Justice, Civil Rights Division. <http://www.usdoj.gov/crt/cor/coord/ixlegal.pdf> (accessed: November 13, 2008). p. 7.

7. 1972. Title IX of the Education Amendments of 1972. 20 U.S.C. §§ 1681-1688 (U.S.C. Title 20, Education; Chapter 38 – Discrimination based on sex or blindness). United States of America: United States Department of Justice. <http://www.usdoj.gov/crt/cor/coord/titleixstat.htm> (Accessed: October 16, 2008).

8. U.S. Department of Justice. 2001. *Title IX Legal Manual*. Washington, D.C.: United States Department of Justice, Civil Rights Division. <http://www.usdoj.gov/crt/cor/coord/ixlegal.pdf> (accessed: November 13, 2008). See pp. 25-35.

WOMEN AT THE UNIVERSITY OF VIRGINIA

In 1818, Thomas Jefferson wrote, “A plan of female education has never been a subject of systematic contemplation with me. It has occupied my attention so far only as the education of my own daughters occasionally required.” He recommended the study of French, along with the “ornaments” of dancing and music. Recognizing the role of women in the education of children, he described drawing as “an innocent and engaging amusement, often useful, and a qualification not to be neglected in one who is to become a mother and an instructor.” He stressed the value of “household economy” to the education of young women, and compared it with the operation of a farm with the warning that if it were neglected, the absence of the means of living would bring ruin and destitution.⁹ Jefferson’s “household economy” would emerge as the applied science of home economics in the curriculum of the nineteenth-century public university, introduced under the Morrill Act of 1862. Jefferson’s concern with the study of rural economy (agriculture), which was listed as a course of studies within the University of Virginia’s 1824 proposed school of natural history, is found at the heart of the Morrill Act’s intellectual structure, shared with engineering and the mechanical arts.

The Act that established the University of Virginia, passed in 1819, does not define the institution’s students as men. It mentions only “students,” and is therefore silent on the issue of women attending the university.¹⁰ In 1879, recognizing that Virginia “‘has never, at any period of her history’ provided for the higher education of her daughters, though she ‘has liberally provided for the higher education of her sons,’ the State Senate

9. Foley, J. P., ed. 1900. *The Jeffersonian Cyclopaedia: A Comprehensive Collection of the Views of Thomas Jefferson, Classified and Arranged in Alphabetical Order Under Nine Thousand Titles*. New York: Funk & Wagnalls Company. p. 274, entry number 2390, “EDUCATION, Female.” Transcription of a letter from Thomas Jefferson to N. Burwell, 1818. Foley’s sources: *The Writings of Thomas Jefferson*, edited by H.A. Washington, printed by the United States Congress, 1853-54, Vol. vii, p. 101; and, *The Writings of Thomas Jefferson*, collected and edited by Paul Leicester Ford, published by G. P. Putnam’s Sons, 1892-99, Vol. X., p. 104.

10. Jefferson, T. 1856. “An Act Establishing the University” (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell* [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph. Note: “An Act Establishing the University” was passed by the General Assembly of Virginia on January 25, 1819.

resolved to look into the possibility of higher education for women.”¹¹ In 1880, a university committee explored the possibilities of establishing a coordinate college to accommodate the admittance of women to the University of Virginia, but the recommendation was not adopted. In 1892, Caroline Preston Davis submitted a petition to the university asking for permission to be examined in the School of Mathematics. In response, the faculty passed a resolution approving her application, but referred to committee the broader question of whether all women should have entry to examinations. The committee drafted rules to allow women to receive private tutoring instead of attending courses at the university to prepare for examinations leading to a certificate of proficiency. Davis passed the examination and earned a certificate; then, in 1895, the faculty and the Board of Visitors decided not to extend examination privileges to all women, concluding that the courses available at the University of Virginia were not suitable for women, competitive university work would be harmful to women’s reproductive health, coeducation would lower the institution’s standards, and that the education of women was inconsistent with the intentions of Thomas Jefferson.¹²

During the early twentieth century, the Board of Visitors, the Virginia legislature, the students and alumni argued the issues of coeducation and the establishment of a coordinate college, without resolution. In 1919, women began to be admitted to the university’s graduate school, and in 1944 the university granted coordinate college status to the State Female Teachers College at Fredericksburg (now known as Mary Washington College), located sixty-five miles from the University of Virginia. Several hundred women were admitted annually to

11. 1996. *United States v. Virginia et al.* 518 U.S. 515 (1996): United States Supreme Court. At 537, Quoting T. Woody, *A History of Women’s Education in the United States* (1929), vol. 2, p. 254 (Woody quoting 10 Educ. J. Va. 212 (1879)). At note 10: “Virginia’s Superintendent of Public Instruction dismissed the coeducational idea as “repugnant to the prejudices of the people” and proposed a female college similar in quality to Girton, Smith, or Vassar.” Vol. 2 *History of Women’s Education*, 254 (quoting 1 Report of the Commissioner of Education, H. R. Doc. No. 5, 58th Cong., 2d Sess., 438 (1904)).

12. Bruce, P. A. 1920-1922. *History of the University of Virginia 1819-1919: The Lengthened Shadow of One Man*. New York: The Macmillan Company. Volume IV, pp.63-69. Also cited in Ihle, E. L. 2004. “Women’s Admission to the University of Virginia: Tradition Transformed” in Miller-Bernal L., Poulson S. L., eds. *Going Coed: Women’s Experiences in Formerly Men’s Colleges and Universities, 1950-2000*. Nashville: Vanderbilt University Press. p. 183.

the university's coordinate and graduate colleges by the 1950s, but few were admitted to the College of Arts and Sciences. Those few who were admitted were third- and fourth-year transfer students from the Mary Washington campus, and the wives and daughters of faculty members. By 1967, women could be admitted to the university's professional programs in nursing, education, law, medicine, engineering, the Bachelor of Science programs, and the Graduate School of Arts and Sciences, but not to those programs that led to the Bachelor of Arts degree.¹³

In the summer of 1967, the President of the university, empowered by the Board of Visitors, established the Committee to Study the Admission of Women to poll faculty, students, and alumni on the issue of admitting women to the university. Later that year, the board took no action after receiving the committee's report. The following year, the Board dissolved the ban on the admission of women by approving the admission of wives and daughters of staff members and students.¹⁴

In May 1969, a lawsuit was filed by Mrs. Jo Anne Kirstein, Miss Virginia Anne Scott, et al., against The Rector and Visitors of the University of Virginia, the Governor, and others. The plaintiffs maintained that their constitutional rights, and those of the class of women that they represented, had been denied because the University had precluded their admission to the College of Arts and Sciences.¹⁵ The court ordered the University to consider the applications of the four women plaintiffs and to admit them if they were qualified, and to submit a plan for the implementation of coeducation in the College of Arts and Sciences to the court.¹⁶ At the Board's October 1969 meeting, the fol-

13. —. 2004. "Women's Admission to the University of Virginia: Tradition Transformed" in Miller-Bernal L., Poulson S. L., eds. *Going Coed: Women's Experiences in Formerly Men's Colleges and Universities, 1950-2000*. Nashville: Vanderbilt University Press. pp. 183-188.

14. *Ibid.* pp. 183-188.

15. University of Virginia, Board of Visitors. 2005. The Rector And Visitors Of The University Of Virginia. Board of Visitors minutes, 3 October 1969. Admission Of Women To The College Of Arts And Sciences: University of Virginia Library Digital Collections. <http://repo.lib.virginia.edu:18080/fedora/get/uva-lib:183660/uva-lib-bdef:100/getFullView/2008-11-16T00:36:53.038Z>.

16. *Ibid.* Ihle, E. L. 2004. "Women's Admission to the University of Virginia: Tradition Transformed" in Miller-Bernal L., Poulson S. L., eds. *Going Coed: Women's Experiences in Formerly Men's Colleges and Universities, 1950-2000*. Nashville: Vanderbilt University Press. pp. 188-190.

lowing paragraph was approved as official University policy regarding the admission of women:

“That the restrictions heretofore placed on the admission of women to the undergraduate schools at Charlottesville be and they hereby are unconditionally removed, so that there be no restriction on admission of women applicants to the University of Virginia at Charlottesville, including, without limitation, its College of Arts and Sciences and other undergraduate schools, other than the same restrictions imposed upon male applicants for admission to such schools, provided, only, that the number of women may be limited during such temporary transition period as may be determined necessary by the Board for the implementation of this resolution; and that all such applicants shall be considered irrespective of their sex.”¹⁷

As a result of the lawsuit and the court’s order, the University of Virginia offered admission to 450 women in September 1970,¹⁸ and an additional 550 women in September 1971. Beginning with the 1972-73 academic year, there was no limit placed on the number of women to be admitted into the College of Arts and Sciences at the University of Virginia.¹⁹

17. University of Virginia, Board of Visitors. 2005. The Rector And Visitors Of The University Of Virginia. Board of Visitors minutes, 3 October 1969. Admission Of Women To The College Of Arts And Sciences: University of Virginia Library Digital Collections. <http://repo.lib.virginia.edu:18080/fedora/get/uva-lib:183660/uva-lib-bdef:100/getFullView/2008-11-16T00:36:53.038Z>.

18. 1970b. *Kirstein v. Rector and Visitors of University of Virginia*, 309 F. Supp. 184 - Dist. Court, ED Virginia 1970. Mrs. Jo Anne Kirstein, Miss Virginia Anne Scott, et al. filed objections to the plan for the implementation of coeducation, insisting “that there is no assurance that the plan will ever be permanently effectuated because final authority rests with the Legislature of Virginia and because the plan may be undone by future boards of visitors. Plaintiffs’ other ground of objection is that the plan does not solve the question of sex discrimination at other institutions of higher education and is limited to the University of Virginia at Charlottesville.” The Court’s holding: “We hold, and this is all we hold, that on the facts of this case these particular plaintiffs have been, until the entry of the order of the district judge, [2] denied their constitutional right to an education equal with that offered men at Charlottesville and that such discrimination on the basis of sex violates the Equal Protection Clause of the Fourteenth Amendment.” “[2] By preliminary order on September 8, 1969, United States District Judge Robert R. Merhige, Jr., ordered the University at Charlottesville to consider without regard to sex plaintiffs’ applications for admission.” Based on questions related to the admission of women to military institutions and the admission of men to women’s colleges, the Court declined to “go further and to hold that Virginia may not operate any educational institution separated according to the sexes.”

19. University of Virginia, Board of Visitors. 2005. The Rector And Visitors Of The University Of Virginia. Board of Visitors Minutes, 3 October 1969. “Admission Of Women To The College Of Arts And Sciences”: University of Virginia Library Digital Collections. <http://repo.lib.virginia.edu:18080/fedora/get/uva-lib:183660/uva-lib-bdef:100/getFullView/2008-11->

In contrast to the story of women and the University of Virginia, the 1879 Constitution of the State of California, Article IX, Section 9, states: “No person shall be debarred admission to any of the collegiate departments of the University on account of sex.”²⁰ The University of California, chartered in 1868, began operations in 1869 in the former buildings of the College of California in Oakland. When classes opened in 1873 in the newly completed buildings (North and South Halls) on what is today’s UC Berkeley campus, 222 women and 167 men were enrolled.²¹

WOMEN AND HIGHER EDUCATION IN THE EIGHTEENTH AND NINETEENTH CENTURIES

“I beg your pardon; I thought we were speaking of the best method of cultivating the powers of *human beings*, so as to bring them to the greatest perfection of which they are capable ... In this I can make no distinction of sex...” —Elizabeth Hamilton, 1801²²

After the Revolution, many coeducational and female-only academies, seminaries, and institutes offered courses for women beyond the primary school level; however, these institutions, precursors to women’s colleges, were typically impermanent institutions known as “adventure,” or “venture” schools, and many existed for only for a few weeks or months. The three interlocking structures (administrative,

16T00:36:53.038Z. See Board minutes, which state that in addition to the changes made to the admissions policies of the University of Virginia, the Board authorized the President of the University to request Virginia’s legislators to introduce legislation to delete the phrase “for women” from the Code of Virginia pertaining to Mary Washington College.

20. California Legislature. 1879. *Constitution of the State of California*. The Statutes of California passed at the Twenty-third Session of the Legislature, 1880. Sacramento. State Office: J.D. Young, Supt. State Printing. Facsimile available at California State Archives. (August 30, 2011, <http://www.sos.ca.gov/archives/collections/1879/archive/1879-constitution.pdf>)

21. The Regents of the University of California. 2004. *General History: the ten campuses—Berkeley: Historical Overview*. University of California History, Digital Archives. (June 17, 2009, http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/overview.html, and http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/index.html)

22. Hamilton, E. 1801. *Letters on Education*. Dublin: H. Colbert. “Letter III: Associations producing the Passion of Fear,” pp. 28-29. Emphasis in original. (Note: the American edition of Elizabeth Hamilton’s book from the second London edition was issued under the title: *Letters on the Elementary Principles of Education*.) Partially quoted in Nash, M. A. 2005. *Women’s Education in the United States, 1780—1840*. New York: Palgrave Macmillan. p. 35.

intellectual, and physical) of these schools were relatively simple. A combined administrative/intellectual structure often consisted of a husband and wife team that taught courses in one or more subjects in their home, the school's physical structure. The intellectual structure was to some extent driven by student demand, and the school was funded by tuition. To complete studies in multiple subjects, students often attended more than one of these schools, or engaged private tutors. Courses included drawing and painting, music, dancing, needlework, Latin, Greek and French. Some of these schools provided classes in English grammar, writing, literature, and arithmetic.²³ Without a government charter to define their institution's purpose and administrative structure, including the selection of members of a board of trustees or other governing body, the proprietors of these private schools had ultimate control over their school's curriculum and regulations.²⁴

Later in the eighteenth century, the number of venture schools decreased, and more permanent academies that offered a broader range of courses within the walls of a single building began to be established.²⁵ According to Margaret Nash, Assistant Professor of Curriculum and Instruction at the Graduate School of Education, University of California, Riverside, there are no exact definitions for the terms "academy," "seminary," "institute," and "college." Colleges, however, were generally all-male degree-granting institutions that offered courses of study grounded in the classics and training primarily in the fields of medicine, law, and the ministry. A school for women was seldom called a college, and prior to 1830, no institution called a college admitted women.²⁶ In New York, the majority of academies in operation between 1790-1860 were coeducational.²⁷

23. —. 2005. *Women's Education in the United States, 1780—1840*. New York: Palgrave Macmillan. pp. 5, 36-37.

24. Willard, E. 1819. *An Address to the Public; Particularly to the Members of the Legislature of New-York, Proposing a Plan for Improving Female Education, by Emma Willard* (second edition). Middlebury, Vermont: J.W. Copeland. pp. 8-12.

25. Nash, M. A. 2005. *Women's Education in the United States, 1780—1840*. New York: Palgrave Macmillan. p. 37.

26. *Ibid.* See: "Chapter 1, Introduction"; "Chapter 3, 'Cultivating the Powers of Human Beings': Curriculum and Pedagogy in Schools and Academies in the New Republic"; and pp. 82-91.

27. Beadie, N. 1993. "Emma Willard's Idea Put to the Test: The Consequences of State

Like the venture schools, the curricula of the eighteenth-century academies included drawing, painting, music, dance, and needlework. The study of English was represented by courses in reading, writing, spelling, grammar, composition, and oratory. Handwriting was taught as an important skill for business. Other courses offered included arithmetic, bookkeeping, geography, history, physics, botany, geology, meteorology, astronomy, chemistry, and natural philosophy. Some women's academies, like the all-male colleges, offered courses in ancient and modern languages, such as Latin, Greek, and French.²⁸ The seminary courses also emphasized Christian religion and morals, training for teachers, and intellectual enjoyment. Mental discipline, a concept we examined when we looked at the Yale Report of 1828, was included as part of the course of study.²⁹

Nash says that the curricula in men's and women's institutions of higher education were similar in the antebellum era, when it was generally thought that a liberal arts education would be sufficient preparation for any occupation. In addition, she asserts that courses related directly to domestic economy, housewifery, and childrearing were rarely included in the curricula of these institutions.³⁰ Miller-Bernal states that women's colleges retained and enhanced

Support of Female Education in New York, 1819-67". *History of Education Quarterly* 33: 543-562. p. 549. Beadie cites Theodore R.Sizer, *The Age of the Academies, Edited and with an introduction and notes by Theodore R. Sizer* (New York: Bureau of Publications, Teachers College, Columbia University, c1964) Classics in Education, No. 22.

See also: Beadie, N., Tolley, K., eds. 2002. *Chartered Schools: Two Hundred Years of Independent Academies in the United States, 1727-1925*. New York: RoutledgeFalmer. *Chartered Schools: Two Hundred Years of Independent Academies in the United States, 1727-1925*, Edited by Nancy Beadie and Kim Tolley (New York: RoutledgeFalmer, 2002).

28. Nash, M. A. 2005. *Women's Education in the United States, 1780—1840*. New York: Palgrave Macmillan. p. 43-49. For greater detail on the history of private women's academies and seminaries of the eighteenth and nineteenth centuries in the United States, including the names of institutions, year of establishment, and purpose, see Woody, T. W. 1929. *A History of Women's Education in the United States* New York: Reprinted in 1966 by Octagon Books. Volume I, Chapters VIII and IX. Thomas Walter Woody (1891-1960) earned a Ph.D. at Teachers College, Columbia University in 1918. His dissertation is titled *Early Quaker Education in Pennsylvania*. Woody was Professor of History and Education at the University of Pennsylvania from 1919-1960.

29. —. 1929. *A History of Women's Education in the United States* New York: Reprinted in 1966 by Octagon Books. Volume I, p. 397-399.

30. Nash, M. A. 2005. *Women's Education in the United States, 1780—1840*. New York: Palgrave Macmillan. pp. 10, 13.

their prestige by avoiding applied subjects such as home economics.³¹ We will examine the evolution of the applied science of home economics and its relation to the Morrill Act of 1862 later in this chapter. Home economics programs at public colleges and universities played a crucial role in the advancement of knowledge in the fields of public health, sanitation, and nutrition. In her book *Treatise on Domestic Economy for the Use of Young Ladies at Home* (1841), Catherine Beecher (1800-1878), an educator and social reformer who founded the Hartford Female Seminary in 1823, argued for the application of scientific principles to cooking, housekeeping, and childrearing. Beecher is known also for her efforts to increase access to higher education for women, justified by their service to the nation as teachers.³²

For examples of the administrative structures of these academies for women, we can look to Thomas Woody's description of the Young Ladies Academy of Philadelphia, chartered in 1792, and Elizabeth Academy of Mississippi, chartered in 1819. The charter of the Young Ladies Academy of Philadelphia made provision for a board of trustees with at most sixteen, but not less than eight members. It named fourteen specific individuals to the board and gave them the typical corporate rights and powers of an institution of education to hold real estate, appoint officers, make by-laws, set examinations, and award diplomas. The charter also included a provision for a replacement set of trustees to be elected by a petition organized by any twelve subscribers (a subscriber is an individual who has contributed mon-

31. Miller-Bernal, L. 2006. "Introduction: Changes in the Status and Functions of Women's Colleges over Time" in Miller-Bernal L., Poulson S. L., eds. *Challenged by Coeducation: Women's Colleges Since the 1960s*. Nashville: Vanderbilt University Press. p. 6. Leslie J. Miller-Bernal, Professor of Sociology at Wells College, was appointed Vice-President for Academic Affairs and Dean of the College in 2007.

32. Sklar, K. K. 2000. "Beecher, Catharine Esther": <http://www.anb.org.oca.ucsc.edu/articles/09/09-00074.html>; *American National Biography Online* Feb. 2000. Access Date: Thu Nov 06 2008 16:43:24 GMT-0800 (PST). Copyright © 2000 American Council of Learned Societies. Published by Oxford University Press. For sources on the history of home economics in the United States, see the HEARTH Project at Cornell University: http://hearth.library.cornell.edu/h/hearth/about_HEARTH.html. Albert R. Mann Library. 2008. Home Economics Archive: Research, Tradition and History (HEARTH): Ithaca, NY: Albert R. Mann Library, Cornell University. <http://hearth.library.cornell.edu> (Version January 2005), Beecher, C. E. 1841. *A Treatise on Domestic Economy* [1970 reprint of the 1841 edition published by Marsh, Capen, Lyon, and Webb, Boston]. New York: Source Book Press.

ey to the support of the institution). Under this provision, ultimate governance power was given to those who funded the institution. An individual was named as principal of the academy, not removable except for “crime, misdemeanor, or disability either natural or civil.” Woody does not indicate the method by which a new principal would be appointed. In contrast, Elizabeth Academy, in operation for about twenty-five years, was governed by a board of trustees filled by members of the Mississippi Methodist Conference. The academy’s president was a minister.³³

By 1840, hundreds of institutions of higher education for women had been established, including three that are often mentioned for their historical importance: Troy Female Seminary (established 1821), Hartford Female Seminary (established 1824), and Mount Holyoke Female Seminary (established 1837).³⁴

The history of at least one of these three institutions has particular relevance to the history of the public university. In 1818, Emma Willard (1787-1870) presented *A Plan for Improving Female Education* to the governor and legislature of the state of New York.³⁵ Willard’s Plan, which envisioned a publicly-funded institution of higher education for women, states in its introduction:

“The object of this address, is to convince the public, that a reform, with respect to female education, is necessary; that it cannot be effected by individual exertion, but that it requires the aid of the legislature; and further, by shewing the justice, the policy, and the magnanimity of such an undertaking, to persuade that body to endow a seminary for females, as the commencement of such reformation.”³⁶

Willard also spoke to the members of the New York legislature about the state’s crucial role in the support of educational institutions for

33. Woody, T. W. 1929. *A History of Women’s Education in the United States* New York: Reprinted in 1966 by Octagon Books. Volume I, p. 337. The author briefly discusses the charters of these institutions, but does not provide the original text of the documents.

34. Nash, M. A. 2005. *Women’s Education in the United States, 1780—1840*. New York: Palgrave Macmillan. p. 5.

35. Willard, E. 1819. *An Address to the Public; Particularly to the Members of the Legislature of New-York, Proposing a Plan for Improving Female Education, by Emma Willard* (second edition). Middlebury, Vermont: J.W. Copeland.

36. *Ibid.* p. 5.

men, and its negligence to provide equal support for educational opportunities for women:

“Civilized nations have long since been convinced that education, as it respects males, will not, like trade, regulate itself; and hence, they have made it a prime object to provide that sex with everything requisite to facilitate their progress in learning: but female education has been left to the mercy of private adventurers; and the consequence has been to our sex, the same, as it would have been to the other, had legislatures left their accommodations, and means of instruction, to chance also. ... Male education flourishes, because, from the guardian care of legislatures, the presidencies and professorships of our colleges are some of the highest objects to which the eye of ambition is directed. Not so with female institutions.”³⁷

In response to Willard’s argument that educational institutions for women be recognized and supported in a manner equal to those established for the education of men, the governor and legislature granted a charter for Willard’s Waterford Female Academy, which provided stability and permanency to her institution, but they did not offer funding. In 1821, Willard moved her school to the town of Troy, New York, where the Common Council and local citizens raised money to provide a permanent building for her school.³⁸

By 1826, the USNY Regents had granted charters to a total of six institutions for the education of women, but none of these had received any funding from the state. The state of New York had provided funding to colleges and academies through its Board of Regents since 1784 through separate appropriations. In 1813, New York established a Literature Fund, from which it disbursed money to colleges and academies according to a formula based on the number of students enrolled in collegiate studies. Since women did not attend colleges, this formula excluded women’s education. Female academies in New York became eligible to receive state funding in 1828. In 1838, the Troy Female Seminary received its state charter and status

37. *Ibid.* p. 7.

38. Grigg, S. 2000. “Willard, Emma Hart”: *American National Biography Online*. Oxford University Press. <http://www.anb.org.oca.ucsc/articles/09/09-00806.html> (Accessed: Monday, October 27, 2008). Lord, J., LL.D. 1873. *The Life of Emma Willard*. New York: D. Appleton and Company. p. 93.

as an institution under the Regents of the USNY.³⁹

Troy Female Seminary provided a model for other institutions of higher education for women essentially in terms of its intellectual structure. In contrast to other early nineteenth-century women's academies, Troy's curriculum included college-level courses previously available only at men's colleges. These courses included mathematics, history, geography, natural philosophy, and modern languages in addition to music and painting.⁴⁰ A professor from Rensselaer Polytechnic Institute, also located in Troy, taught science courses at the seminary.⁴¹

In her presentation to the New York legislature, Willard emphasized the importance of courses in chemistry, botany, anatomy, and astronomy to the education of women. Nancy Beadie, Associate Professor, History of Education, University of Washington, says that Willard adapted the traditional senior-year curriculum of men's colleges to the needs of women. Recall that in our analysis of the intellectual structure of Dartmouth College, we found that the 1797 and 1822 senior year studies included courses in theology, metaphysics, and political law, with readings that included *The Federalist* and the works of John Locke, Jonathan Edwards, Joseph Butler, Dugald Stewart, William Paley, and others. These courses in moral philosophy and politics were typically taught by the

39. Beadie, N. 1993. "Emma Willard's Idea Put to the Test: The Consequences of State Support of Female Education in New York, 1819-67". *History of Education Quarterly* 33: 543-562. pp. 548-549.

40. Grigg, S. 2000. "Willard, Emma Hart": *American National Biography Online*. Oxford University Press. <http://www.anb.org.oca.ucsc/articles/09/09-00806.html> (Accessed: Monday, October 27, 2008). Lord, J., LL.D. 1873. *The Life of Emma Willard*. New York: D. Appleton and Company. pp. 50-51, 85-86, 93, 94-96. John Lord LL.D. (1810-1894), historian and lecturer, graduated from Dartmouth College in 1833, then lectured at Dartmouth from 1869-1876. He was the nephew of Nathan Lord (1792-1870), president of Dartmouth College from 1828 - 1863. See: Anon. 1911. "Lord, John" in Chisholm H., ed. *The Encyclopaedia Britannica: A Dictionary of Arts, Sciences, Literature and General Information*, vol. XVI, page 992. New York: The Encyclopaedia Britannica Company. John Lord was a non-resident lecturer in history at Mount Holyoke College in 1858-61 and 1879 - 85. See: Mount Holyoke College. 1895. *Quinquennial Catalogue of Officers and Students of Mount Holyoke College, South Hadley, Mass. 1837-1895*: Published by Mount Holyoke College.

See also: Beadie, N. 1993. "Emma Willard's Idea Put to the Test: The Consequences of State Support of Female Education in New York, 1819-67". *History of Education Quarterly* 33: 543-562. p. 548-549.

41. Grigg, S. 2000. "Willard, Emma Hart": *American National Biography Online*. Oxford University Press. <http://www.anb.org.oca.ucsc/articles/09/09-00806.html> (Accessed: Monday, October 27, 2008).

college president and prepared young men for public service roles in society. Beadie says that Willard's moral philosophy course relied on John Locke's *An Essay Concerning Human Understanding*, which explores perception, judgment, the power of memory, the operation of the mind, and the acquisition of knowledge. These topics were relevant to women's role in teaching children.⁴² The senior year courses of study offered at men's colleges and at Willard's academy for women indicate that the social sciences played a central role in the curricula of higher education in the eighteenth and nineteenth centuries.

Based on her extensive review of college catalogs, circulars, and reports to expose the intellectual structures of both men's and women's eighteenth- and nineteenth-century academies, Nash says that evidence of the actual curricula of nineteenth-century academies and seminaries is more difficult to find than are published recommendations for ideal courses of study.⁴³ Beadie says that antebellum academies were multi-level institutions that offered studies ranging from elementary to collegiate. They were usually established by town boosters, constructed with donations of land, materials, and labor, and funded by tuition and denominational sponsors.⁴⁴ In contrast to venture schools, which were short-lived and often operated by an individual, academies typically were incorporated institutions governed by a Board of Trustees that contributed to the selection of the institution's teachers and curriculum. Establishment of academies was facilitated by some states during the eighteenth and nineteenth centuries. Kim Tolley, Professor

42. Beadie, N. 1993. "Emma Willard's Idea Put to the Test: The Consequences of State Support of Female Education in New York, 1819-67". *History of Education Quarterly* 33: 543-562. pp. 546-547. Willard presents a suggested course of study for a women's academy in: Willard, E. 1819. *An Address to the Public; Particularly to the Members of the Legislature of New-York, Proposing a Plan for Improving Female Education*, by Emma Willard (second edition). Middlebury, Vermont: J.W. Copeland. pp. 18-23.

43. Nash, M. A. 2005. *Women's Education in the United States, 1780-1840*. New York: Palgrave Macmillan. pp. 35 ff. See also the entries in the book's *Bibliography: Primary Sources, Academy, Seminary, High School, and Other School Catalogs, Circulars, and Reports*, pp. 167-184. Nash provides an expanded discussion of published curricular recommendations for academies in: —. 2002. "A Triumph of Reason": Female Education in Academies in the New Republic" in Beadie N., Tolley K., eds. *Chartered Schools: Two Hundred Years of Independent Academies in the United States, 1727-1925*. New York: RoutledgeFalmer. pp. 72-78.

44. See: Beadie, N. Ibid. "Internal Improvement: The Structure and Culture of Academy Expansion in New York State in the Antebellum Era, 1820-1860". pp. 89-95.

of Education, discusses examples of state sponsored academies founded in colonial North Carolina, and the states of New York, Kentucky, Indiana, Georgia, and Texas. In Indiana, the state legislature passed a bill in 1818 entitled *An act respecting public seminaries, and for other purposes*. This law, which is also cited as the *County Seminary Law of 1818*, gave the governor power to appoint a trustee in each county to oversee public funds used to support the local seminary.⁴⁵

Oberlin College, a privately-controlled institution founded in 1833, accepted women into the regular course of its Collegiate Department in 1837. Oberlin claims that this event marks both the beginning of college education for women and coeducation at the college level.⁴⁶ Oberlin's early admittance of women is unusual: nineteenth-century academies and seminaries were open to women, but colleges were not.

During the second half of the nineteenth century, the number of degree-granting colleges for women increased, with the greatest number established in the 1850s, prior to the Morrill Act of 1862. About 155 women's colleges had been established by 1880.⁴⁷

The early history of women's education in the United States discussed above does not reflect the secondary and post-secondary educational experiences of black American women, nor does it include a look at educational institutions established specifically for black women. While the details of the important and complex history of higher education for black women is beyond the scope of this book, a summary

45. Tolley, K. Ibid. "Mapping the Landscape of Higher Schooling, 1727–1850". See pp. 26-30. For further detail on the curricula, governance, and students of antebellum academies in the United States, see Beadie, N., Tolley, K., eds. 2002. *Chartered Schools: Two Hundred Years of Independent Academies in the United States, 1727–1925*. New York: RoutledgeFalmer. Kim Tolley is Professor in the School of Education at Notre Dame de Namur University.

46. Fletcher, R. S., Wilkins, E. H. 1937. "The Beginning of College Education for Women and of Coeducation on the College Level". *Bulletin of Oberlin College*, New Series 343. March 20, 1937. 1937 College Bulletin Transcription, Oberlin College Archives. Oberlin, Ohio. <http://www.oberlin.edu/archive/resources/1937Bulletin/transcript.html> (Accessed: October 24, 2008).

47. Geiger, R. L. 2000. "The 'Superior Instruction of Women' 1836-1890" in Geiger R., ed. *The American College in the Nineteenth Century*. Nashville: Vanderbilt University Press. p. 185, also "Table 8, Degree Granting Colleges for Women in 1880 by Founding Date and Region," p. 187. For an expansive biographical and sociological history of women's education see also: Woody, T. W. 1929. *A History of Women's Education in the United States* New York: Reprinted in 1966 by Octagon Books.

background for this topic supports the history of the public research university as it relates to the Morrill Act of 1890.

Prior to emancipation, ⁴⁸ enslaved black American women in the South were legally prohibited from learning to read, but some slaves were given instruction in reading to help them carry out their duties, and Bible reading was encouraged to ensure obedience. There were numerous clandestine schools in operation. Free blacks in the North had limited opportunities to obtain education. From about 1827 to 1863, there were attempts by white women to establish schools for black girls in New England. In 1829, the St. Frances Academy of Rome boarding school in Baltimore, founded by French-educated black nuns, was the only secondary educational institution that admitted black women. In 1852, The Society of Friends established the Institute for Colored Youth in Philadelphia, and Myrtila Miner, a white woman, founded the Normal School for Colored Girls in the District of Columbia. During and after the Civil War, several thousand white women teachers from the North traveled to the South to teach black women in private schools established by missionary and religious organizations. Antebellum schools in the Midwest provided education to free blacks and fugitives from the South. In 1846, the Quakers founded the Union Literary Institute in Randolph County, Indiana. By 1865, hundreds of schools for blacks had been established in fourteen Southern states aided by the federal government's Freedmen's Bureau. These schools typically offered limited studies in reading, writing, arithmetic, and geography. Societies aided by the Freedmen's Bureau also established postsecondary institutions, often referred to as historically black colleges and universities. ⁴⁹ Since most Southern black

48. The Emancipation Proclamation, an executive order, was issued by President Abraham Lincoln in 1863. The Thirteenth Amendment to the Constitution of the United States, adopted in December 1865, abolished slavery in the United States.

49. See: National Archives and Records Administration. 2011. "The Freedmen's Bureau, 1865-1872". (June 20, 2011, <http://www.archives.gov/research/african-americans/freedmens-bureau/>). "The Bureau was established in the War Department in 1865 to undertake the relief effort and the unprecedented social reconstruction that would bring freedpeople to full citizenship. It issued food and clothing, operated hospitals and temporary camps, helped locate family members, promoted education, helped freedmen legalize marriages, provided employment, supervised labor contracts, provided legal representation, investigated racial confrontations, settled freedmen on abandoned or confiscated lands, and worked with African American soldiers and sailors and their heirs to secure back pay, bounty payments, and pensions." See also: Finkleman, P., ed. 2006. *Encyclopedia of African American History, 1619-1895: From the Colonial Period to the Age of Frederick Douglass* New York: Oxford University

colleges concentrated on providing secondary-level programs, black women who chose to pursue college level education entered institutions established for whites. In the mid-nineteenth century, it was common for black families to relocate to areas near schools that admitted black students. In 1860, Oberlin College was the only institution to admit black Americans to programs attended by white men. In 1886, Lucy Laney, an African American born free in Georgia in 1854, founded the Haines Normal and Industrial Institute in Augusta, Georgia. Other educational institutions for black American women founded after the Civil War were predominately private, religious in character, and established by whites. These schools included the following: Hartshorne Memorial College in Richmond, Virginia (1864); Mary Allen Seminary in Crockett, Texas (1885); Montgomery Industrial School in Montgomery Alabama (1886); Mary Holmes Seminary in Jackson, Mississippi (1892) (later moved to West Point, Mississippi); and Barber Memorial Seminary in Anniston, Alabama (1896). Spelman College was established in 1881 in Atlanta, Georgia, by two white women. Bennett College, founded by the Methodist Episcopal Church in Greensboro, North Carolina, in 1873, was initially a coeducational institution. In 1926 it became a women's college.⁵⁰

WOMEN'S COLLEGES IN THE NINETEENTH CENTURY

“To build a college in the proper sense of the word, an institution which should be to women what Yale and Harvard are to young men, receiving them after suitable preparation at the academies and seminaries, and furnishing them with the means for a true liberal education.”
—Matthew Vassar⁵¹

Press. Volume 1 (A-E), Pp. 441-456. Paul Finkelman is the President William McKinley Distinguished Professor of Law and Public Policy at Albany Law School.

50. To provide a brief history on the education of black American women, we relied on the following resources: Perkins, L. M. 2005. “Education”. Pages 382-391 in Hine D. C., ed. *Black Women in America*, vol. 1 (A-G). New York: Oxford University Press. Linda M. Perkins is Associate Professor of Applied Women's Studies, Educational Studies, and History at the Claremont Graduate University.

Finkleman, P., ed. 2006. *Encyclopedia of African American History, 1619-1895: From the Colonial Period to the Age of Frederick Douglass* New York: Oxford University Press. Volume 1 (A-E), pp. 441-456.

51. Quoted in Sherwood, S. 1900. *The University of the State of New York: History of Higher Education in the State of New York*. Washington, D.C.: Government Printing Office. p. 447. Also quoted in Geiger, R. L. 2000. “The ‘Superior Instruction of Women’ 1836-1890” in

Most nineteenth-century women's academies, seminaries, and colleges were privately-controlled institutions. We will take a look at some aspects of these private women's colleges, using Vassar College as an example, prior to examining the nineteenth-century public women's college.

In 1915, a group of four nineteenth-century women's colleges was organized by the president of Vassar College to develop new admissions standards. In 1926, this group, now enlarged to include seven colleges, began a campaign to increase endowments and raise faculty salaries to levels closer to those of prestigious men's colleges. The group of colleges was nicknamed the Seven Sisters (See Table 7.2).⁵² Compared with other women's colleges founded in the same era, the Seven Sisters were better financed and offered higher quality academic programs that closely resembled those offered at men's colleges. In addition, these colleges recruited a high percentage of women faculty at a time when women academics were excluded from positions at men's colleges or coeducational institutions.⁵³ Linda M. Perkins, Associate Professor of Applied Women's Studies, Educational Studies, and History at the Claremont Graduate University, says that most of the "Seven Sisters" colleges barred entrance to black women, but many black women earned degrees at these colleges in the late nineteenth century.⁵⁴

Wesleyan College, a privately-controlled institution affiliated with the United Methodist Church, is not one of the Seven Sisters. It was chartered as Georgia Female College in 1836, and was the first women's college to confer "all such honors degrees and licenses as are usually conferred in colleges and universities."⁵⁵

Geiger R., ed. *The American College in the Nineteenth Century*. Nashville: Vanderbilt University Press. p. 189.

52. Vassar College. 2008. *The Seven Sisters* [article in the online Vassar Encyclopedia]. Poughkeepsie, New York: Vassar College. http://vcencyclopedia.vassar.edu/index.php/The_Seven_Sisters (Accessed: November 30, 2008).

53. Harwarth, I., Maline, M., DeBra, E. 1997. *Women's Colleges in the United States: History, Issues, and Challenges*: U.S. Department of Education, National Institute on Postsecondary Education, Libraries, and Lifelong Learning (PLLI). <http://www.ed.gov/offices/OERI/PLLI/webrept.html>. <http://www.ed.gov/offices/OERI/PLLI/ipp.html#womens> (Accessed: November 21, 2008). pp. 6-7.

54. Perkins, L. M. 2005. "Education". Pages 382-391 in Hine D. C., ed. *Black Women in America*, vol. 1 (A-G). New York: Oxford University Press. p. 385.

55. Woody, T. W. 1929. *A History of Women's Education in the United States*. New York:

In her book, *Alma Mater*, Horowitz provides detailed written descriptions of the physical structures of the Seven Sisters colleges within her mainly social and biographical history of these institutions. Of particular interest to our work is her description of the physical structures of Vassar, Mount Holyoke, and Wellesley colleges as “single gigantic buildings that not only housed and fed all faculty and students but gave them spaces for classrooms, laboratories, chapel, library, and museums.” The physical structure of these institutions connected all elements of their intellectual and administrative structures within one main building. Horowitz notes that in contrast with the University of Virginia’s decentralized academical village of connected small pavilions, a single large building provided seclusion from the external world and allowed close supervision of the women students.⁵⁶ Our look at the physical structure of the University of Virginia, however, revealed that each separate pavilion of the Academical Village combined faculty living quarters and classrooms, and that the pavilions were connected directly to on-site student dormitories. The obvious difference between Vassar’s physical structure and that of the University of Virginia is that Vassar’s single large building has internal hallways, while the passageways at Jefferson’s University of Virginia are external. External passageways permit movement to occur outside of designated boundaries, which is not possible in physically constrained internal hallways. External passageways also allow easier access to the physical structure by

Reprinted in 1966 by Octagon Books. Volume II, page 184. Seller reviewed Woody’s book in 1989 and said: “Thomas Woody’s monumental two-volume treatise, *A History of Women’s Education in the United States*, remains the authoritative, indeed the only, comprehensive survey of the history of women’s education in the United States.” Seller, M. S. 1989. “A History of Women’s Education in the United States: Thomas Woody’s Classic—Sixty Years Later”. *History of Education Quarterly* 29: 95-107.

See also Harwarth, I., Maline, M., DeBra, E. 1997. *Women’s Colleges in the United States: History, Issues, and Challenges*: U.S. Department of Education, National Institute on Postsecondary Education, Libraries, and Lifelong Learning (PLLI). <http://www.ed.gov/offices/OERI/PLLI/webreprt.html>. <http://www.ed.gov/offices/OERI/PLLI/ipp.html#womens> (Accessed: November 21, 2008).; and Wesleyan College: <http://www.wesleyancollege.edu/About/HistoryoftheCollege/tabid/134/Default.aspx> (Accessed: (Accessed: December 15, 2008).

56. Horowitz, H. L. 1993. *Alma Mater: Design and Experience in the Women’s Colleges from their Nineteenth-Century Beginnings to the 1930s* [Second Edition]. Amherst, Massachusetts: University of Massachusetts Press. Quoted text appears on pp. 3-4. In her preface (p. xxiii), Horowitz says, “no professional historian has written a comprehensive history of any of the seven [sisters] colleges.” Helen Lefkowitz Horowitz is Professor of History and American Studies at Smith College.

people who are not associated with the institution. The internal hallways of a centralized physical structure and the external passageways of a decentralized structure both encourage social interaction between students and faculty, and between those pursuing different academic disciplines. Walls act to separate internal activities from the external world. Horowitz writes that the architectural models for Vassar College were a hospital and an asylum, and that Vassar's physical structure communicated both protection from and fear of the outside world.⁵⁷

Geiger points out that the scale of their physical structure gave colleges such as Vassar and Wellesley an advantage over smaller institutions. These larger colleges could better accommodate growth in their intellectual structure and increases in enrollments. However, Geiger also notes that construction costs for the original large buildings of both Vassar and Wellesley depleted these institutions' original endowments and necessitated tuition fees that were higher than those of most other colleges.⁵⁸ Horowitz says that Vassar College "sprang not from the educational impulses of the day but from a self-made man's wish to insure his immortality in a great building."⁵⁹ In contrast to Thomas Jefferson's planning process for the University of Virginia, which took into consideration the functions and interactions of all three institutional structures, Vassar's intellectual and administrative structures played subordinate roles. Vassar President John Raymond's advice against designing a building "before the internal organization had been matured," is in harmony with Thomas Jefferson's planning for the University of Virginia, and our three interrelated structures of an institution of higher education. Raymond compared Vassar College to a turtle: "The shell should be *grown by*, that it may be *fitted to*, the animal. It is an awkward thing, as I have learned by much & trying experience, to fit a live & vigorous animal to a shell manufactured to

57. *Ibid.* pp. 31-32.

58. Geiger, R. L. 2000. "The 'Superior Instruction of Women' 1836-1890" in Geiger R., ed. *The American College in the Nineteenth Century*. Nashville: Vanderbilt University Press. pp. 191-192. Roger L. Geiger is Distinguished Professor of Education at The Pennsylvania State University.

59. Horowitz, H. L. 1993. *Alma Mater: Design and Experience in the Women's Colleges from their Nineteenth-Century Beginnings to the 1930s* [Second Edition]. Amherst, Massachusetts: University of Massachusetts Press. See chapter 2, "More Lasting than the Pyramids: Vassar." Quoted phrase appears on page 29.

order, in advance.”⁶⁰ Vassar College was not unique in this regard. The typical board of trustees of a nineteenth-century American college was favorably disposed to spend money on extravagant buildings surrounded by lawns while neglecting to provide equally generous levels of funding to support professors, and purchase books and equipment. According to Dabney, these circumstances led to the Morrill Act’s prohibition on using land-grant funds for the purchase, erection, preservation, or repair of any buildings.⁶¹

At its nineteenth-century beginning, Vassar’s administrative structure included an external Board of Trustees and an internal College President. The Board was divided into managing committees that governed the institution’s functions, including its faculty and academic departments. The college’s combined internal administrative and intellectual structure included its President, Lady Principal, professors, and instructors. The President oversaw the day-to-day administration of the college and provided religious instruction. The President’s assistant, the “Lady Principal,” was responsible for the internal social life of the college. The professors directed the academic departments and were responsible for supervising student conduct.⁶² In terms of faculty supervision of students, Vassar College and the University of Virginia are similar. At each of these colleges, members of the faculty originally were assigned the role of administering official rules related to student conduct, but the students at each institution soon developed a system of self-governance.⁶³

60. John Howard Raymond to Lewis Henry Morgan, February 20, 1873, Lewis Henry Morgan Papers, University of Rochester Library, Rochester, New York. Quoted in *ibid.* p. 41.

61. Dabney, C. W. 1900. “Agricultural Education” in Butler N. M., ed. *Education in the United States: A Series of Monographs Prepared for the United States Exhibit at the Paris Exposition, 1900*. Albany, New York: J. B. Lyon Company. p. 24 [616]. Charles W. Dabney was President of the University of Tennessee, Knoxville. The series was edited by Nicholas Murray Butler, Professor of Philosophy and Education at Columbia University, New York.

62. Sherwood, S. 1900. *The University of the State of New York: History of Higher Education in the State of New York*. Washington, D.C.: Government Printing Office. p. 449. See also Horowitz, H. L. 1993. *Alma Mater: Design and Experience in the Women’s Colleges from their Nineteenth-Century Beginnings to the 1930s* [Second Edition]. Amherst, Massachusetts: University of Massachusetts Press. Chapter 2, “More Lasting than the Pyramids: Vassar,” pp. 28-41.

63. Sherwood, S. 1900. *The University of the State of New York: History of Higher Education in the State of New York*. Washington, D.C.: Government Printing Office. p. 449.

Geiger finds it ironic that women's colleges were often seen as inferior when compared to men's colleges because their offerings in classical languages were less extensive. During that same period, men's colleges were criticized for their continuing emphasis on Greek and Latin studies. By the late nineteenth century, the course offerings at women's colleges rivaled those at men's colleges.⁶⁴

The freshman year course offerings presented in the 1894-95 Vassar catalog includes a prescribed course in Latin composition with readings in classic texts (Latin studies continued through the four-year undergraduate course); Greek history, oratory, philosophy, and poetry; French classics and translation; German grammar and composition; English composition; mathematics; and hygiene. The senior year curriculum includes courses that the student may elect with approval of the faculty. The offerings included ethics; ancient and modern philosophy; Latin classics; Roman institutions; comparative grammar; readings in Plato and Aristotle; French literature; critical and analytical study of seventeenth-century drama; philosophical and religious literature of the seventeenth century; contemporary literature; English grammar; Chaucer's *Canterbury Tales*; Shakespeare; Bacon and Milton; mathematics; analytic mechanics; astronomy; practical physics; organic chemistry; geology; biology and current biological literature; comparative anatomy; history; American and English constitutional history; comparative politics; economics; social science; art; and music. In addition to Vassar's liberal arts course offerings, freshman year requirements included hygiene, a "practical investigation of the principles of house sanitation," and the senior year course offerings included sanitary chemistry, described as "chemistry of air and water in their relation to health, water supply and purification, ventilation, food adulteration, and legal standards of purity."⁶⁵

See discussion in Chapter 4 on the history of student self-governance at the University of Virginia.

64. Geiger, R. L. 2000. "The 'Superior Instruction of Women' 1836-1890" in Geiger R., ed. *The American College in the Nineteenth Century*. Nashville: Vanderbilt University Press. Sherwood, S. 1900. *The University of the State of New York: History of Higher Education in the State of New York*. Washington, D.C.: Government Printing Office. pp. 446-465.

65. —. 1900. *The University of the State of New York: History of Higher Education in the*

Bryn Mawr College

Bryn Mawr College, a privately-controlled women's college founded in 1885, provides important contrasts to other nineteenth-century women's colleges, particularly in terms of their physical and intellectual structures.⁶⁶ The idea for the establishment of Bryn Mawr College, an institution that would offer young women "the advantages of a col-

State of New York. Washington, D.C.: Government Printing Office. pp. 451-463. Sidney Sherwood was Associate Professor of Political Economy at Johns Hopkins University.

66. Bryn Mawr College does not provide public access to its charter, corporate by-laws, or other administrative details. We consulted the following sources for information on the history of Bryn Mawr College:

Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company.

Hamilton, A. 2004. *A Vision for Girls: Gender, Education, and the Bryn Mawr School*. Baltimore: The Johns Hopkins University Press.

Anon. 1884. "Bryn Mawr College: The Institution for Women Founded by the Late Dr. Joseph W. Taylor" (From the *Philadelphia Ledger*, November 8). *The New York Times*. November 15, 1884.

1917. Bryn Mawr College v. Montgomery County and Lower Merion Township. *Montgomery County Law Reporter for the year 1918* (Volume XXXIV): Court of Common Pleas of Montgomery County.

Giddings, F. H. 1902a. "Bryn Mawr College" in Adams H. B., ed. *Contributions to American Educational History, No. 33. A History of Higher Education in Pennsylvania*. United States Bureau of Education. Circular of Information No. 4, 1902. Washington, D.C.: Government Printing Office.

Gerber, J. 1998. "Bryn Mawr College". Pages 60-63 in Summerfield C., Devine M. E., eds. *International Dictionary of University Histories, Third Edition*, Routledge.

Thomas, M. C. 1896. *Annual Report of The President of Bryn Mawr College, 1894-95*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp02bryn> (Accessed: June 11, 2011).

—. 1897. *Annual Report of The President of Bryn Mawr College, 1895-96*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp02bryn> (Accessed: June 11, 2011).

—. 1900. "Education of Women" in Butler N. M., ed. *Monographs on Education in the United States*, United States Department of Education for the United States Commission to the Paris Exposition of 1900.

Rhoads, J. E. 1885. "Bryn Mawr College: Report of the President to the Trustees for 1884". *The President's Report to the Board of Trustees, for 1884 and 1885*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp01bryn> (Accessed: June 11, 2011).

lege education which are so freely offered to young men,"⁶⁷ began with Dr. Joseph Wright Taylor (1810-1880), a trustee of Haverford College.⁶⁸ As part of his planning for Bryn Mawr College, Taylor consulted with President Gilman of Johns Hopkins University, and President Seelye of Smith College. He also visited Mount Holyoke and Wellesley Colleges to study their physical structures.⁶⁹ In his will, Joseph Taylor provided endowment funding, and outlined the institution's goals, administrative and physical structures, and intellectual direction. Prior to his death in 1880, Taylor purchased the site for the College and oversaw the initial work on the construction of the College classroom and dormitory buildings.

Administrative Structure of Bryn Mawr College

The eleven members of the College's original Board of Trustees, each a member of the Orthodox Society of Friends (Quakers), were designated by name in Joseph Taylor's Will. These named individuals were: Francis T. King, a graduate of Haverford College, President of the Board of Trustees of the Johns Hopkins Hospital, and a trustee of Johns Hopkins University; James Carey Thomas, M. D., of Baltimore, Maryland; James E. Rhoads, M.D., of Philadelphia; John B. Garrett, Charles Hartshorne, Samuel Morris, David Scull, and James Whitall of

67. Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company. Cornelia Lynde Meigs (1884—1973) received her A.B. degree from Bryn Mawr College in 1908, and was professor of English at Bryn Mawr College from 1932 to 1950. She wrote over thirty books for children, and is perhaps best remembered for her biography of Louisa May Alcott, *Invincible Louisa*, for which she won the Newbery Award Medal in 1934. After her retirement from Bryn Mawr in 1950, Meigs taught writing for a time at the New School of Social Research in New York City. See: the papers of Cornelia Meigs in the Dartmouth College Library <http://ead.dartmouth.edu/html/ml41.html> (Accessed: January 4, 2011); and, Special Collections Department of the University of Iowa Libraries: http://www.lib.uiowa.edu/speccoll/MS/ToMsC700/MsC658/MsC658_meigscornelia.htm#biohist (Accessed: January 4, 2011)

68. Haverford College was founded in 1833 as a Quaker school for boys. Haverford began admitting women as first-year undergraduate students in 1980. Haverford College. 2011. *About Haverford: History*. (June 15, 2011, <http://www.haverford.edu/abouthaverford/history.php>)

69. Giddings, F. H. 1902b. "Bryn Mawr College". Pages 23-31 in Adams H. B., ed. United States Bureau of Education. Circular of Information No. 4, 1902. *Contributions to American Educational History, No. 33: A History of Higher Education in Pennsylvania*, by Charles H. Haskins and William I. Hull. Washington, D.C.: Government Printing Office.

Philadelphia; Charles S. Taylor, of New Jersey; William R. Thurston, of New York; and Albert K. Smiley, head of a Quaker school in Providence, Rhode Island.⁷⁰

Following direction provided in Taylor's Will, the Trustees, a self-perpetuating body, met in February of 1880 to compose the College's Charter, which was subsequently confirmed by the State of Pennsylvania in May of the same year.⁷¹ The Charter named thirteen trustees, including the eleven designated in the Will, adding Francis R. Cope, and Philip C. Garrett. Trustee Francis T. King was elected president of the board. The Charter provided "that the whole management, care and control of the property of the corporation, real and personal, shall be vested in the members who shall be known as the trustees..."⁷² In 1906, the Charter was amended and the number of trustees was increased to sixteen.⁷³ According to direction provided in Taylor's will, the trustees have the following powers: general administration and superintendence of all college matters; the appointment and removal of professors, the College president, officers of college government, and employees; the authority to set the salaries and prescribe the duties of all appointments; the supervision and direction of the academic work of the college; and care of the buildings and grounds.⁷⁴ Sources of fi-

70. Ibid. p. 25.

1917. Bryn Mawr College v. Montgomery County and Lower Merion Township. *Montgomery County Law Reporter for the year 1918* (Volume XXXIV): Court of Common Pleas of Montgomery County. p. 115.

71. Rhoads, J. E. 1885. "Bryn Mawr College: Report of the President to the Trustees for 1884". *The President's Report to the Board of Trustees, for 1884 and 1885*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp01bryn> (Accessed: June 11, 2011).

72. 1917. Bryn Mawr College v. Montgomery County and Lower Merion Township. *Montgomery County Law Reporter for the year 1918* (Volume XXXIV): Court of Common Pleas of Montgomery County.

73. *ibid.* Note: In 2011, there were 27 Trustees, including two ex-officio members: the College President and the President of the Alumnae Association. The 2011 board membership included an additional four special representatives. Bryn Mawr College. 2011b. Members of the Board of Trustees 2010–11. (June 14, 2011) <http://www.brynmawr.edu/trustees/trustees.html>

74. 1917. Bryn Mawr College v. Montgomery County and Lower Merion Township. *Montgomery County Law Reporter for the year 1918* (Volume XXXIV): Court of Common Pleas of Montgomery County.

nancial support for the College include income from the College's endowment fund, gifts from individuals, and student tuition fees.

In 1884, James E. Rhoades was appointed President of the College, and Martha Carey Thomas, daughter of trustee James Carey Thomas, M. D., was appointed to the position of Dean and Professor of English. In 1894, after the resignation of President Rhoades, Ms. Thomas was elected President of Bryn Mawr and served in that position until 1922. Martha Carey Thomas (1857-1935) received her A. B. degree from Cornell University in 1877, and was the first woman to be admitted to a master's program at Johns Hopkins University; but, since the presence of a woman in a classroom was considered a distraction to the other students, she was prohibited from attending lectures. She withdrew from the program after one year and traveled to Europe to pursue a graduate degree. She earned her Ph.D. in English and German philology from the University of Zurich in 1882.⁷⁵

In his Will, Dr. Taylor stated that members of the Society of Friends be given priority in the admission as students to the College, and that once admitted the students must be willing to be educated as Friends. However, while all students received religious education at the College, there was no requirement that the students become members of the Society of Friends. In the Charter amendments of 1906, text in Charter Article III relating to religion was eliminated: "...that all students must be willing to be educated as Friends."⁷⁶

Physical Structure of Bryn Mawr College

In contrast to the single large structure that was Vassar College, the Bryn Mawr College campus is composed of multiple separate buildings that serve different functions. In 1879, ground was broken on the central academic building, Taylor Hall, a building designed for instruction that included chemical and biological laboratories, a library and reading room, as well as lecture rooms and an assembly room. Dalton Hall,

75. Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company. Pp. 69-70

76. 1917. *Bryn Mawr College v. Montgomery County and Lower Merion Township*. *Montgomery County Law Reporter for the year 1918* (Volume XXXIV): Court of Common Pleas of Montgomery County.

a laboratory building for the sciences, was opened in 1893.

Unlike Vassar College, where dormitories and classrooms were located within the same building, Bryn Mawr College had separate dormitory and classroom buildings. Merion Hall, the first of Bryn Mawr's dormitories, completed in 1885, is four stories high and 160 feet long. Merion Hall's features included bedrooms, bathing facilities, study rooms, and a dining room. In 1886, a second dormitory, Radnor Hall, was built. Denbigh Hall, a third dormitory, was completed in 1890. The College Gymnasium included dressing rooms, baths, an examination room, and a running track. Other campus buildings included the President's house, a house for the Dean, cottages for members of the faculty, and a laundry and boiler house.

The College Library was originally located in Taylor Hall. By 1894, the Library's holdings had grown too numerous for its rooms. Books were being stored in classrooms, and noise levels in the library interfered with study. Clearly, a separate library building was needed.⁷⁷ At the annual meeting of the Trustees in 1899, President M. Carey Thomas requested authorization for a library fundraising campaign. To support the effort, John D. Rockefeller offered to contribute \$250,000 toward a new dormitory if the College could raise an equal amount to support the construction of a new library.⁷⁸ The fundraising goal was met in 1902, and John D. Rockefeller, Jr. provided additional financial support to the project. The new library opened in 1906.

Intellectual Structure of Bryn Mawr College

Greek language and literature were not admission requirements, but all students were required to complete a short course in Greek before graduation. It was thought that Greek provided a deeper understanding of the English language and scientific nomenclature. Those who had not completed studies in Greek prior to admission were expected to have a good foundation in French and German and to have read

77. Thomas, M. C. 1896. *Annual Report of The President of Bryn Mawr College, 1894-95*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp02bryn> (Accessed: June 11, 2011). Report of the Librarian, page 72.

78. Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company. P. 76.

classics in those languages. In addition, all entering students had to pass examinations in Chemistry, Physics, Botany, or Physiology.

The Board of Trustees decided to offer a single Bachelor of Arts degree. Bryn Mawr's graduates were expected to have completed courses of study in two ancient and three modern languages, in mathematics, philosophy, and one science, in addition to elective courses.⁷⁹ These objectives were achieved through a group system of curriculum. Each student selected a group of courses that was designed to meet the degree requirements. There was no fixed term that led to graduation. Some students might complete the requirements for the undergraduate degree in three years, while others might need four to five years of work.⁸⁰

While the Board of Trustees controlled the intellectual direction of the College, many members of Bryn Mawr's Faculty were heads of their own departments, and developed advanced courses organized around their own research interests.⁸¹ One conspicuous difference between the nineteenth-century intellectual structure of Bryn Mawr College and that of Vassar College is the absence of courses in home economics at Bryn Mawr. But, the most important contrast between Bryn Mawr and other nineteenth-century women's colleges in the United States is found in the degree programs they offered: Bryn Mawr was the first women's college in the United States to offer graduate education through the Ph.D. degree. Over Bryn Mawr's first ten years, six Doctor of Philosophy degrees were conferred.⁸² During the Academic Year

79. Rhoads, J. E. 1885. "Bryn Mawr College: Report of the President to the Trustees for 1884". *The President's Report to the Board of Trustees, for 1884 and 1885*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp01bryn> (Accessed: June 11, 2011). Pp.12-19.

80. Giddings, F. H. 1902b. "Bryn Mawr College". Pages 23-31 in Adams H. B., ed. United States Bureau of Education. Circular of Information No. 4, 1902. *Contributions to American Educational History, No. 33: A History of Higher Education in Pennsylvania* by Charles H. Haskins and William I. Hull. Washington, D.C.: Government Printing Office. Pp. 27-29.

81. Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company. p. 43.

82. Thomas, M. C. 1896. *Annual Report of The President of Bryn Mawr College, 1894-95*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp02bryn> (Accessed: June 11, 2011). Chart, page 79: "A Tabular Statement of the Increase in the Number of Students and of the Degrees Conferred during the Ten Years from 1885 to 1895."

1895-96, five Ph.D. degrees were conferred in the following subjects: one each in Latin and Greek, History and Political Science, and Mathematics and Physics, and two in English and Teutonic Philology.⁸³ By 1902, many of Bryn Mawr's graduates had found teaching positions at Barnard College, Mount Holyoke College, Smith College, Vassar College, Wellesley College, and the University of Illinois.⁸⁴ (See Table 7.1)

Student Governance at Bryn Mawr College

In 1892, a system of student governance was established by one of Bryn Mawr's students, and approved by the College administration and the Board of Trustees. The Bryn Mawr Student's Association for Self-Government included a president, an executive board, and an advisory board. The student rules adopted by the student governance association included restrictions on leaving campus at night in parties smaller than three, receiving men in a student's study, and serving alcoholic beverages. The enforcement of Academic regulations remained the prerogative of the College Administration and the Faculty.⁸⁵ The Bryn Mawr Student Government Association claims that it was the first such organization to be established; but decades earlier the University of Virginia had struggled to establish student self-governance.

Relation between Bryn Mawr College and Bryn Mawr School

In 1885, concurrent with the establishment of Bryn Mawr College,

83. —. 1897. *Annual Report of The President of Bryn Mawr College, 1895-96*. Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. <http://www.archive.org/details/annualreportsofp02bryn> (Accessed: June 11, 2011). Page 30.

84. Giddings, F. H. 1902b. "Bryn Mawr College". Pages 23-31 in Adams H. B., ed. United States Bureau of Education. Circular of Information No. 4, 1902. *Contributions to American Educational History, No. 33: A History of Higher Education in Pennsylvania* by Charles H. Haskins and William I. Hull. Washington, D.C.: Government Printing Office.

85. Meigs, C. L. 1956. *What Makes a College: A History of Bryn Mawr*. New York: The Macmillan Company. Pp. 54-58.
 Student Government Association: Bryn Mawr College. 2011. "About SGA". (June 15, 2011, <http://sga.blogs.brynmawr.edu/about/>)
 Bryn Mawr College. 2011a. "The Honor Code and Self-Government". (June 15, 2011, <http://www.brynmawr.edu/about/honorcode.shtml>)

Table 7.1 (part 1/5) Bryn Mawr College: Courses of Instruction, 1894 – 95	
Department	Course
Sanskrit and Comparative Philology	Lectures on Comparative Philology Sanskrit
Greek	Elementary Greek, Grammar, Xenophon's Anabasis, Books I-II Homer's Iliad, Books I-II Homer's Odyssey, Selections from Books I-XII Lycias, Plato Greek Prose Composition Lectures on History of Greek Literature, Epic and Lyric Lectures on History of Greek Literature, Drama and Prose Aeschylus, Thucydides, Pindar, Theocritus, Sophocles, Aristotle, Plato, New Testament Greek Graduate Courses: Thucydides and Attic Historians
Latin	Horace, Vergil, Livy, Cicero, Tacitus, Juvenal, Tibullus, Propertius, Terence, Plautus, Lucretius, Catullus Latin Prose Composition Graduate Courses: Roman Historiography
English	Lectures on the History of English Literature from the time of Shakespeare to the time of Milton, inclusive, required. Lectures on the History of English Literature from the Restoration, exclusive of Milton, to the present time, required. Essay Work, required, first year Essay Work, required, second year Bright's Introduction to Anglo Saxon Grammar and Bright's Reader Anglo Saxon, Bright's Reader, and Beowulf Middle English Grammar and Reading of Middle English Texts English Poets of the Nineteenth Century English Essayists and Critics of the Nineteenth Century Parallel Course to Nineteenth Century Criticism Graduate Courses: English Drama Anglo-Saxon, Elene Anglo-Saxon, Exeter Book Anglo-Saxon Phonology

Table 7.1 (part 2/5) Bryn Mawr College: Courses of Instruction, 1894 – 95	
Department	Course
German	Elementary German Grammar and Translation Lectures on the History of German Literature from Klopstock to the present German Reading, Wallenstein German Reading, Faust, Part I German Prose Composition German Conversation Lectures on the History of German Literature from the earliest times to the time of Klopstock, exclusive German Reading, Faust, Part II German Reading, Goethe-Schiller Correspondence Middle High German Old High German and German Dialects Modern German Reading
Teutonic Philology	Gothic Graduate Courses: Gothic Old High German Old Saxon Old Norse Introductory Teutonic Philology
French	Elementary French Grammar and Translation Lectures on the History of French Literature of the Eighteenth and Nineteenth Centuries French Critical Reading French Prose Composition French Reading and Conversation Lectures on French Literature of the Seventeenth, Eighteenth, and Nineteenth Centuries Old French Reading Graduate Courses: French Philology and Literature, Old French Epic Poetry, Old French Syntax French Drama, Old French Texts, Versification and Metrics
Italian	Italian Grammar, Composition, and Critical Reading Italian Literature, Grammar, Composition, and Critical Reading

Table 7.1 (part 3/5) Bryn Mawr College: Courses of Instruction, 1894 – 95	
Department	Course
Spanish	Spanish Grammar, Composition, and Critical Reading Spanish Literature, Grammar, Composition, and Critical Reading Graduate Courses: Spanish Syntax, Composition and Literature, Origin of Spanish Drama and Dramatists, Dramas of the Sixteenth and Seventeenth Centuries
Semitic Languages and Biblical Literature	Elementary Hebrew Advanced Hebrew Old Testament Seminar Assyrian The History of Israel The Cuneiform Inscriptions and the Old Testament Patristic Greek Historical Outlines of Christian Thought New Testament Seminar
History	Modern History, from the Treaty of Westphalia to the close of the Napoleonic Campaigns Modern History, from the Congress of Vienna to the present time English Constitutional History Graduate Courses: Historical Definition, Method, and Criticism History of Roman Law
Political Science	Principles of Economics Economic Geography and Demography The History of Labor and Capital

Table 7.1 (part 4/5) Bryn Mawr College: Courses of Instruction, 1894 – 95	
Department	Course
Philosophy	Logic and Psychology, required Psychology and Philosophy, required Lectures on Christian Ethics, required Lectures on the Origins and Contents of the Books of the Bible, required Psychology British Philosophy of the Seventeenth and Eighteenth Centuries Ethics (free elective)
Mathematics	Trigonometry, required Solid Geometry, required Analytical Conics Algebra, Advanced Trigonometry and Theory of Equations, and Elementary Differential and Integral Calculus Differential and Integral Calculus, Differential Equations Curve Tracing, Analytical Geometry of Three Dimensions History of Mathematics Modern Analytical Geometry Elements of the Theory of Functions Graduate Courses: Individual Seminar Theory of Groups
Physics	Laws and Properties of Matter, Heat, Mechanics Electricity and Magnetism, Light and Sound Laboratory Work Theory of Electricity, Problems in Mechanics Theory of Heat, Theory of Light, Theory of Sound Graduate Courses: Physical Optics Thermodynamics

Table 7.1 (part 5/5)	
Bryn Mawr College: Courses of Instruction, 1894 – 95	
Department	Course
Chemistry	Introduction to General Chemistry (Lectures) General Chemistry (Lectures) Reviews and Chemical Physics Laboratory Work Lectures on Organic Chemistry Lectures on Theoretical Chemistry Lectures on Inorganic Chemistry Lectures on Inorganic Chemistry and Quantitative Analysis Advanced Organic Chemistry Theoretical and Physical Chemistry Seminar Work
Biology	Lectures on General Biology Lectures on Plants, Vertebrates, and Embryology Laboratory Work Animal Physiology General Zoology, Theoretical Biology Lectures on the Central Nervous System Graduate Courses: Advanced Biology Physiology Physiological Laboratory Work Journal Club Seminar Work
Source for Table 7.1: Thomas, M. C. 1896. <i>Annual Report of The President of Bryn Mawr College, 1894-95</i> . Philadelphia: Bryn Mawr College. Digitized by the Internet Archive in 2011 with funding from LYRASIS Members and Sloan Foundation. http://www.archive.org/details/annualreportsofp02bryn (Accessed: June 11, 2011). Pages 66-71.	

M. Carey Thomas, along with four friends—Mary Gwinn, Mary Elizabeth Garrett, Julia Rogers, and Bessie King—established the Bryn Mawr School, a private college-preparatory school for girls in Baltimore, Maryland. Modeled after similar institutions for men, this school was the first of its kind in the United States. The founders intended the school to be a feeder institution to Bryn Mawr College (which did not have a preparatory or remedial program). As a requirement for graduation, all of the School’s students had to pass the entrance examination for Bryn Mawr College, even if they had no plans to attend college. The Bryn Mawr College entrance examination was modeled after that of Harvard. For chronological perspective, Radcliffe College, a women’s college associated with Harvard, was established in 1894, nine years after Bryn Mawr College. Women were not accepted to Harvard until 1943. Mary Garrett (1854-1915), heir to the Baltimore and Ohio Railroad fortune, provided scholarships for graduates of Bryn Mawr School to attend Bryn Mawr College.⁸⁶

HOME ECONOMICS

The nineteenth-century course offerings in hygiene and sanitation at Vassar College deserve a few comments related to the field of study known as Home Economics and its position within the intellectual structure of nineteenth-century women’s colleges.

At the end of a series of annual conferences held from 1899 to 1908 at Lake Placid, Morningside, New York, the participants recommended to the state legislature that home economics be given the “same practical encouragement which they now give to agriculture and the mechanic arts in state schools and colleges.”⁸⁷ The term Home Economics was defined in 1902, at the fourth Lake Placid conference:

“Home economics in its most comprehensive sense is the study of laws, conditions, principles and ideals which are concerned on the one hand

86. Hamilton, A. 2004. *A Vision for Girls: Gender, Education, and the Bryn Mawr School*. Baltimore: The Johns Hopkins University Press. Pp. 2, 3, 16, 21, 27, 28.

87. See Nerad, M. 1987. “Gender stratification in higher education: The Department of Home Economics at the University of California, Berkeley 1916-1962”. *Women’s Studies International Forum* 10: 157-164. pp. 6-8. Quoted phrase appears on page 7. Nerad cites *Lake Placid Conference on Home Economics: Proceedings of the Fourth Annual Conference* (Lake Placid, New York, 1899). p. 7.

with man's immediate physical environment and on the other hand with his nature as a social being, and is the study specifically of the relation between those two factors. In a narrow sense the term is given to the study of the empirical sciences with special reference to the practical problems of housework, cooking, etc.”⁸⁸

Margaret Nash, Professor of Curriculum and Instruction at University of California, Riverside, claims that none of the antebellum-era women's academies offered courses in domestic economy, housewifery, or childrearing.⁸⁹ Leslie Miller-Bernal, Professor of Sociology at Wells College, says that the prestige of women's colleges was enhanced by the absence of practical applied subjects, such as home economics,

88. Quoted in *ibid.*, p. 7. Nerad cites *Lake Placid Conference on Home Economics: Proceedings of the Fourth Annual Conference* (Lake Placid, New York, 1902). p. 70-71. Nerad writes (p. 8) that the American Home Economics Association (AHEA) and *The Journal of Home Economics* were both brought into existence at the final Lake Placid conference in 1909. See also East, M. 1980. *Home Economics: Past, Present, and Future*. Boston: Allyn and Bacon, Inc. p. 10-11; and, Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 39.

The Lake Placid Home Economics conferences were held at the Lake Placid Club, a private establishment in the Adirondacks. See: Lake Placid Club: New York. 1901. *Lake Placid Club, organized 1895; Morningside, Moose Island, Adirondack lodge, 'Heart of the Adirondacks'; Handbook [Introduction by Melvil Dewey]*. Morningside, New York. Page 6: "The club plans are shaped by prominent workers in the new science of home economics, who hold their annual conferences at the club. A leading purpose is to show practically that the most attractiv [sic] home and table may also in the highest degree illustrate the teaching of modern science as to health and home comforts."

See also: Anon. 1931. "Dr. Melvil Dewey Dead in Florida; Noted Educator, Library Expert and Founder of Lake Placid Club Stricken at 80. Advocate of Efficiency Championed Decimal System and Simplified Spelling—Long Secretary of New York State. Eager for Labor Saving. Chief Librarian at Columbia. Founds Lake Placid Club." *The New York Times*. <http://www.nytimes.com/learning/general/onthisday/bday/1210.html>.<http://select.nytimes.com/gst/abstract.html?res=F7081FFC3F54157A93C5AB1789D95F458385F9> (Accessed: 12-27-2008). December 27, 1931, Sunday. The Lake Placid Club was founded in 1895 by Dr. Melvil Dewey. "We wanted to devote our lives to the cause of education ... and one way of doing this was to help the educators. If we could give them an opportunity to find health, strength and inspiration at moderate cost, we knew we would be helping them." The club had "390 buildings and forty-three farms, a general store, a library of 10,000 volumes, sport facilities for all and a reputation as the centre of Winter sports in America."

89. Nash, M. A. 2005. *Women's Education in the United States, 1780—1840*. New York: Palgrave Macmillan. p. 10, 13. Historically a women's college, Wells amended its charter in 1969 to allow the college to grant degrees to men, and became coeducational in 2005. Wells College. 2004. News & Events. News: October, 2004: <http://www.wells.edu/whatsnew/wnnwar50.htm> (Accessed; October 24, 2008). Margaret A. Nash is Assistant Professor of Curriculum and Instruction at the Graduate School of Education, University of California, Riverside.

in their curricula.⁹⁰ The committee on collegiate administration for the American Collegiate Association (ACA) passed a resolution in 1905 stating that “home economics as such has no place in a college course for women” and instead “belongs in a professional course ... taken after leaving college.”⁹¹ Comparing the private Seven Sisters colleges with other institutions of higher education, Solomon says that most coeducational and women’s colleges offered courses in domestic studies, but that the older women’s colleges in the eastern region “self-consciously avoided the issue,” with the perception that “such studies were a waste of the precious undergraduate years.”⁹² In contrast to the goals of the Seven Sisters colleges to provide women with a liberal college education equivalent to that offered to men, the Morrill Act of 1862 sought to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. The Act does not offer a definition for the term “industrial classes” and says nothing about women or men; however, on May 23, 1916, the Secretary of the Interior issued a ruling on instruction for women students, holding that “instruction in the industries for women is included in instruction in agriculture and mechanic arts.”⁹³ Solomon says that women gradually

90. Miller-Bernal, L. 2006. “Introduction: Changes in the Status and Functions of Women’s Colleges over Time” in Miller-Bernal L., Poulson S. L., eds. *Challenged by Coeducation: Women’s Colleges Since the 1960s*. Nashville: Vanderbilt University Press. p. 6. Leslie Miller-Bernal is Professor of Sociology at Wells College, a four-year, private liberal arts college established in 1868, and located in Aurora, New York.

91. The ACA resolution is quoted in Stage, S. 1997. “Introduction—Home Economics: What’s in a Name?” in Stage S., Vincenti V. B., eds. *Rethinking Home Economics: Women and the History of a Profession*. Ithaca: Cornell University Press. p. 8. Stage cites the American Collegiate Association, *Proceedings of the Eighth Annual Conference* (Lake Placid, N.Y., 1907), p. 38. Sarah Stage is Professor and Chair of Women’s Studies at Arizona State University West in Phoenix.

92. Solomon, B. M. 1985. *In the Company of Educated Women*. New Haven: Yale University Press. p. 85.

93. Brunner, H. S. 1966. *Land-Grant Colleges and Universities, 1862-1962*. Washington, D.C.: Office of Education (U.S. Department of Health, Education, and Welfare - DHEW), National Institute of Education. Printed 1962: reprinted 1966. Educational Resources Information Center. ERIC #: ED167027. p.58. This explanation appears on page 54 of Brunner’s book: “From the passage of the Morrill Act in 1862 to July 1, 1939, Federal funds for instruction in the land-grant colleges and universities were administered by the Department of the Interior.” (page 54).

Also, in our correspondence (12/8/2008) with Eric Heath, Reference Specialist at Stanford University Library, Mr. Heath wrote, “It looks like Brunner is the best compilation of these

established their right to attend colleges and universities as new institutions and programs were established under the Act.⁹⁴

In the mid-nineteenth century, about fifty percent of America's population lived on farms. Families living on self-sufficient frontier subsistence farms consumed most of the vegetables, grains, fruits, meat, milk, and eggs that they worked to produce. Very few of these farms were supplied with municipal water or sewer services. Farmhouses were lit with candles made from animal fat, and wood fires provided heat in the winter. Clothing and shoes often were made at home. Practical knowledge related to safe food preparation and preservation methods, nutrition, clothing construction, sanitation, housekeeping, and social life was important to the well-being of rural families.⁹⁵ Through instruction and practical demonstrations, the Cooperative Extension program, established by the Smith-Lever Act of 1914, brought knowledge from university research in subjects related to agriculture and home economics to people living in rural areas who were unable to attend university programs.⁹⁶

rulings ever done in published form. From time to time, from 1911 on, the Commissioner of Education, then under Interior, did a compilation of these laws and rulings, with some title like: Federal Laws, Rulings, etc. Affecting Land-Grant Colleges, but these are all less complete than Brunner and have no more authority than Brunner's compilation in the Office of Education Bulletin. Most important, these administrative rulings were not posted in the annual reports of either the Secretary of the Interior or the Commissioner of Education, even though these reports occasionally include relevant statutes. Of course, there was no Federal Register back then and no legal requirement to post or publish administrative rulings. So, for a greater level of authority and originality than is found in Brunner, I suspect that one must go to the National Archives. Brunner must have compiled his from the original files of the Dept. of the Interior and Office of Education."

94. Solomon, B. M. 1985. *In the Company of Educated Women*. New Haven: Yale University Press. pp. 44-45, 52-53.

95. Rasmussen, W. D. 1989. *Taking the University to the People: Seventy-five Years of Cooperative Extension*. Ames, Iowa: Iowa State University Press. pp. 16-21. Wayne D. Rasmussen (1915-2004) was chief historian for the Department of Agriculture until his retirement in 1986. See: "Wayne D. Rasmussen, 1915-2004," by Dana G. Dalrymple, in *Technology and Culture*, Volume 45, Number 3, July 2004, pp. 683-686.

96. *Ibid.* pp. 48-49. Also: Smith, C. B., Wilson, M. C. 1930. *The Agricultural Extension System of the United States*. New York: John Wiley & Sons, Inc. [Ithaca, New York: Cornell University, Mann Library. <http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=2846637> Accessed: December 18, 2008]. pp. 59-65.; 1914. Smith-Lever Act. 7 U.S.C. 341 et seq. (Act of May 8, 1914, ch. 79, 38 Stat. 372). The United States of America: United States Department of Agriculture. Cooperative State Research, Education, and Extension Service. <http://www.csrees.usda.gov/about/offices/legis/pdfs/smithlev.pdf>.

Sanitation was also a problem in densely populated cities. Household wastes were put into the streets and human wastes were discharged into open ditches or backyard privies. Industrial wastes were also a threat to human health. "The problem of public health was inherent in the new industrial civilization. The same process that created the market economy, the factory, and the modern urban environment also brought into being the health problems that made necessary new means of disease prevention and health protection."⁹⁷ In the report, *The Sanitary Condition of the Laboring Population of New York*, published in 1845, Dr. John Griscom estimated that eighteen thousand people in New York were living in filthy cellars contaminated by seepage from nearby privies.⁹⁸

By the early twentieth century, Home Economics had become an established academic offering in colleges and universities.⁹⁹ In 1970, Hook and Paolucci equated home economists with ecologists and said that "the family as a life support system is dependent upon the natural environment for physical sustenance and upon the social organizations which are related to man's humanness and give quality and meaning to life."¹⁰⁰ In the twenty-first-century research university, many subjects once included in college and university Home Economics departments, such as child and maternal health, sanitation, and nutrition, are now part of the multidisciplinary field of Public Health, which also includes areas of study such as epidemiology, environmental health sciences,

Accessed: September 14, 2008.

97. See Andrews, R. N. L. 1999. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven: Yale University Press. pp. 110-120. Andrews quotes George Rosen, *A History of Public Health*, (New York: MD Publications 1958), p. 201.

98. *Ibid.* p. 114.

99. Solomon, B. M. 1985. *In the Company of Educated Women*. New Haven: Yale University Press. p. 85. Historian Barbara Miller Solomon (1919- 1992) received her Ph.D. in 1953 from Radcliffe College. "Barbara was Director of the Radcliffe Seminars from 1959-1963, Director of the Schlesinger Library (then Women's Archives) from 1960-1965, and first woman Dean of Harvard College (Assistant Dean, from 1971-1973). As Senior Lecturer in American Civilization, she taught the first courses in women's history at Harvard University. (Source: Arthur and Elizabeth Schlesinger Library on the History of Women in America, Radcliffe Institute for Advanced Study at Harvard University)." Biographical information from: Jewish Women's Archive. "Personal Information for Barbara Miller Solomon." <<http://jwa.org/archive/jsp/perInfo.jsp?personID=507>> (October 3, 2008).

100. Hook, N. C., Paolucci, B. 1970. "The Family as an Ecosystem". *Journal of Home Economics* 62: 315-318. p. 316.

and biostatistics. The interwoven biographical, sociological, and political histories of the field of Home Economics as a component of the intellectual structure of nineteenth- and twentieth-century institutions of higher education, including the land-grant colleges and universities, has been well documented and analyzed by others. We refer our readers to the work of those who have looked more closely at this topic.¹⁰¹

PRIVATE AND PUBLIC WOMEN'S COLLEGES IN THE TWENTIETH CENTURY

At private women's colleges, Title IX's prohibition against exclusion from participation in education programs based on sex applies only to graduate programs and professional schools that receive Federal financial assistance. Undergraduate programs at the Seven Sisters colleges are not subject to Title IX prohibitions against discrimination based on sex. Title IX applies only to public institutions of undergraduate higher education. This difference in the applicability of the law explains why graduate programs at private women's colleges are coeducational. Federal financial assistance includes student loans and research grants.¹⁰² (See Table 7.2)

In addition to the private Seven Sisters colleges, many public institutions of higher education for women were founded in the nineteenth and early twentieth centuries. The Mississippi University for Women,

101. For further information on the history of home economics, see: Stage, S., Vincenti, V. B. 1997. *Rethinking Home Economics: Women and the History of a Profession*. Ithaca: Cornell University Press.; Nerad, M. 1999. *The Academic Kitchen: A Social History of Gender Stratification at The University of California, Berkeley*. Albany: State University of New York Press.; and East, M. 1980. *Home Economics: Past, Present, and Future*. Boston: Allyn and Bacon, Inc.

Marjorie East headed the Department of Home Economics Education at the Pennsylvania State University from 1958 to 1980;

Maresi Nerad, "'Home Economics Has to Move': The Disappearance of the Department of Home Economics from the University of California, Berkeley" (Ph.D. dissertation, University of California, Berkeley, 1986).

See also: Home Economics Archive: Research, Tradition, History (HEARTH) at Cornell University Mann Library, <http://hearth.library.cornell.edu/h/hearth/index.html> (Accessed: December 14, 2008).

102. 1972. Title IX of the Education Amendments of 1972. 20 U.S.C. §§ 1681-1688 (U.S.C. Title 20, Education; Chapter 38 - Discrimination based on sex or blindness). United States of America: United States Department of Justice. <http://www.usdoj.gov/crt/cor/coord/titleixstat.htm> (Accessed: October 16, 2008).

Table 7.2		
The Seven Sisters Colleges: Privately-controlled colleges for women		
Year Established	Institution, Control, and Location	Present Status (2008)
1837	Mount Holyoke College Private. Massachusetts	Women's baccalaureate program. One Coeducational graduate program: Master of Arts in Psychology
1861	Vassar College Private. New York	Coeducational baccalaureate program. No graduate program. Charter amended in 1969 to include men. (1)
1870	Wellesley College Private. Massachusetts	Women's baccalaureate program. No graduate program.
1871	Smith College Private. Massachusetts	Women's baccalaureate program. Coeducational graduate program: Masters degrees; Ph.D. in Social Work.
1885	Bryn Mawr College Private. Pennsylvania	Women's baccalaureate program. Coeducational graduate programs offer Masters and Ph.D. degrees.
1889	Barnard College Private. New York	Affiliated with Columbia University. Women's baccalaureate program. No graduate program. (2)
1894	Radcliffe College Private. Massachusetts	Originally a women's college affiliated with Harvard. 1943: Women accepted at Harvard. 1999: Radcliffe College and Harvard University merge creating the Radcliffe Institute for Advanced Study at Harvard University. (3)
<p>Sources for Table 7.2:</p> <p>College websites (Accessed: October 21-22, 2008): http://www.mtholyoke.edu, http://www.vassar.edu, http://www.wellesley.edu, http://www.smith.edu, http://www.brynmawr.edu, http://www.barnard.edu, http://www.radcliffe.edu/.</p> <p>(1) See: "Vassar College: A Seven Sisters College Chooses Coeducation" by Clyde Griffen and Elizabeth A. Daniels in <i>Challenged by Coeducation: Women's Colleges Since the 1960s</i>. Edited by Leslie Miller-Bernal and Susan L. Poulson. Vanderbilt University Press/Nashville: 2006. pp. 25-47.</p> <p>(2) Affiliated with Columbia University, Barnard College maintains its own faculty, curriculum, administration, operating budget, and campus. Columbia University began admitting women in 1983 under the 1982 Barnard-Columbia agreement. See: "Rekindling a Legacy: Barnard College Remains a Women's College" by Andrea Walton in <i>Challenged by Coeducation: Women's Colleges Since the 1960s</i>. Edited by Leslie Miller-Bernal and Susan L. Poulson. Vanderbilt University Press/Nashville: 2006. pp. 289-327.</p> <p>(3) "The mission of the Radcliffe Institute is to create an academic community where individuals can pursue advanced work in any of the academic disciplines, professions, or creative arts. Within that broad purpose, it sustains a continuing commitment to the study of women, gender, and society." http://www.radcliffe.edu/about_the_institute.aspx (Accessed: November 28, 2008)</p>		

founded in 1884, was the first public institution of higher education established for women. Publicly-controlled colleges for women also were established in seven other states, each named to reflect their host state: Georgia State College for Women, North Carolina College for Women, Alabama College, Texas State College for Women, Florida State College for Women, Oklahoma College for Women, and the New Jersey College for Women.¹⁰³ (See Table 7.3)

In 2008, only three public universities for women in the United States retained aspects of their original identities as special needs institutions: Mississippi University for Women (MUW), Texas Woman's University (TWU), and Douglass Residential College of Rutgers University.¹⁰⁴ Two of these institutions, however, admit men into all of their academic programs, and the third is a residential college specifically for women situated within the administrative, physical, and intellectual structures of a public university.

Mississippi University for Women, chartered in 1884 as The Industrial Institute and College, was the first state-supported college for women established in the United States. In 1982, the Supreme Court of the United States held that MUW's policy of denying qualified males the right to enroll for credit in its School of Nursing violated the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States. The Court said that MUW's policy could not be justified on the grounds that it compensated for discrimination against women and therefore constituted an educational affirmative action program because women faced no discriminatory barriers in the field of nursing. Instead, the policy tended

103. Harwarth, I., Maline, M., DeBra, E. 1997. *Women's Colleges in the United States: History, Issues, and Challenges*: U.S. Department of Education, National Institute on Postsecondary Education, Libraries, and Lifelong Learning (PLLI). <http://www.ed.gov/offices/OERI/PLLI/webreprt.html>. <http://www.ed.gov/offices/OERI/PLLI/ipp.html#womens> (Accessed: November 21, 2008). Harwarth et al. cites Pieschel, B. S., Pieschel, S. R. 1984. *Loyal Daughters : one hundred years at Mississippi University for Women, 1884-1984*. Jackson, Mississippi: University Press of Mississippi. p. 8. Bridget Smith Pieschel is Professor of English at Mississippi University for Women.

104. Harwarth, I., Maline, M., DeBra, E. 1997. *Women's Colleges in the United States: History, Issues, and Challenges*: U.S. Department of Education, National Institute on Postsecondary Education, Libraries, and Lifelong Learning (PLLI). <http://www.ed.gov/offices/OERI/PLLI/webreprt.html>. <http://www.ed.gov/offices/OERI/PLLI/ipp.html#womens> (Accessed: November 21, 2008).

Table 7.3
Public Women's Colleges

Institution: Year Established, and History

Mississippi University for Women: 1884

Founded in 1884 as the Mississippi Industrial Institute and College, it became the Mississippi State College for Women in 1920, and in 1974 it was renamed the Mississippi University for Women. It became coeducational in 1982. (1)

Georgia State College for Women: 1889

Chartered in 1889 as the Georgia Normal & Industrial College, it became the Georgia State College for Women in 1922. In 1961 it was renamed The Woman's College of Georgia. It became coeducational in 1967, and in 1996 it was renamed Georgia College & State University. (2)

North Carolina College for Women: 1891

It was known first as the State Normal and Industrial School, and after 1896 as the State Normal and Industrial College. During the period from 1919 to 1931, it was known as the North Carolina College for Women. It was called the Woman's College of the University of North Carolina from 1932 to 1963. It became coeducational in 1964. In 1963, the name of the institution was changed to the University of North Carolina at Greensboro. (3)

Alabama College: 1896

Founded in 1896 as the Alabama Girls' Industrial School. In 1911 its name was changed to Alabama Girls Technical Institute. In 1923 the school became Alabama College, State College for Women. It became coeducational in 1956, and it was renamed University of Montevallo in 1969. (4)

Texas State College for Women: 1901

Founded as the Girls Industrial College in 1901. Its name was changed to Texas State College for Women in 1934. It was renamed Texas Woman's University in 1957. It became fully coeducational in 1994. (5)

Florida State College for Women: 1905

In 1851 the Florida Legislature established two seminaries, one to the west of the Suwannee River and one to the east. In 1855 the Florida Institute opened as a secondary school and college on the site west of the river. In 1857, postsecondary instruction was offered to male students at the Seminary West of the Suwannee River. It became coeducational in 1856 when it merged with the Tallahassee Female Academy. In 1901 it became Florida State College. In 1905 the University of Florida was established and designated a men's school, and the Florida State College became a women's school called the Florida Female College. In 1909 the name of the college was changed to Florida State College for Women. In 1947, the Florida State College for Women was returned to coeducational status and renamed The Florida State University. (6)

Oklahoma College for Women: 1908

Oklahoma Industrial Institute and College for Girls established in 1908; name changed in 1916 to The Oklahoma College for Women. In 1965 the school became coeducational and the name was changed to Oklahoma College of Liberal Arts. In 1974 the name was changed to University of Science and Arts of Oklahoma. (7)

**Table 7.3, continued:
Public Women's Colleges**

Institution: Year Established, and History

The New Jersey College for Women: 1918

Established in 1918 as the New Jersey College for Women, a division of the State University of New Jersey. The name was changed to Douglass College in 1955. In the same year, the State University of New Jersey became Rutgers, The State University of New Jersey. As part of a reorganization of Rutgers, The State University, which took effect in the fall of 2007, Douglass College became Douglass Residential College of Rutgers University, a residential college for women within the larger university. (8)

Source for Table 7.3: Harwarth, I., Maline, M., DeBra, E. 1997. *Women's Colleges in the United States: History, Issues, and Challenges*: U.S. Department of Education, National Institute on Postsecondary Education, Libraries, and Lifelong Learning (PLLI). <http://www.ed.gov/offices/OERI/PLLI/webrept.html>. <http://www.ed.gov/offices/OERI/PLLI/ipp.html#womens> (Accessed: November 21, 2008).

Additional sources for Table 7.3 (Accessed: December 5, 2008):

- (1) History: Mississippi University for Women, <http://www.muw.edu/misc/history.htm>. (Mississippi University for Women 2009)
- (2) About Georgia College and State University, <http://www.gcsu.edu/about/history.html>,
- (3) The University of North Carolina at Greensboro. 2008. History: The University of North Carolina at Greensboro. The University of North Carolina at Greensboro. http://www.uncg.edu/campus_links/inside_uncg/inside_history.html (Accessed: December 4, 2008).
- (4) Brief History of the University of Montevallo, <http://www.montevallo.edu/montevallo/BriefHistory.shtm>
- (5) Brief History of TWU, <http://www.twu.edu/administration/brief-history.asp>. See also: Faculty Handbook, History of the University: <http://twu.edu/faculty/Handbook/a-history.html>
- (6) History of Florida State University, <http://www.fsu.edu/~speccoll/curric/currcoll.htm>. See also: Florida State University History at http://www.fsu.edu/~fsu150/history/history_02_1851a.html (Accessed: December 2008).
- (7) Lewis, A. 1949. "The Oklahoma College for Women". *Chronicles of Oklahoma* [published by the Oklahoma Historical Society] <http://digital.library.okstate.edu/Chronicles/v027/v027p179.pdf> 27:2. p. 179-186. Also: The University of Science and Arts of Oklahoma, <http://www.usao.edu/>
- (8) Tulli, V. 2006. "What's in a Name?". *Friends of Rutgers English: A Newsletter for Alumni and Friends of the Department of English*: <http://english.rutgers.edu/alumni/newsletter/ss06/phprint.php> (Accessed: December 6, 2008).

to perpetuate the stereotype that nursing is exclusively a woman's job.¹⁰⁵ MUW has been admitting men into all of its academic programs since 1982. MUW's graduate program offers the Master of Arts Degree in Education, and Master of Science Degrees in Health Education, Nursing, and Speech-Language Pathology. MUW does not offer doctoral programs.¹⁰⁶

The Texas Woman's University, established by an act of the Texas State Legislature in 1901 as the Girls Industrial College, was the last public university for women in the United States to admit men into all of its programs. In 1972, under the Public Health Service Act of that year, men became eligible for admission to TWU's Institute of Health Sciences. In 1973, pursuant to the provisions of Title IX, qualified men gained access to graduate level programs at TWU.¹⁰⁷ In 1994, TWU's Board of Regents voted to admit men into all of the university's academic programs.¹⁰⁸ In 2008, TWU offered over 60 master's and more than 20 doctoral programs of study. Doctoral programs included child development, counseling psychology, nutrition, early childhood education, family studies, kinesiology, library science, and occupational therapy.¹⁰⁹

105. 1982. *Mississippi University for Women v. Hogan* (No. 81-406). 458 U.S. 718: Supreme Court of the United States (Certiorari to the United States Court of Appeals for the Fifth Circuit).

106. See *Mississippi University for Women, Academic Programs*: http://www.muw.edu/prospective/pros_academic.html (Accessed: December 13, 2008).

107. Title IX of the Education Amendments of 1972. 20 U.S.C. §§1681-1688. Title 20 — Education, Chapter 38—Discrimination based on Sex or Blindness. Section 1681 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance, except that: (1) Classes of educational institutions subject to prohibition: in regard to admissions to educational institutions, this section shall apply only to institutions of vocational education, professional education, and graduate higher education, and to public institutions of undergraduate higher education."

108. For more information about TWU's decision to admit men, see Sahlin, C. L. 2006. "Texas Woman's University: Threats to Institutional Autonomy and Conflict over the Admission of Men" in Miller-Bernal L., Poulson S. L., eds. *Challenged by Coeducation: Women's Colleges Since the 1960s*. Nashville: Vanderbilt University Press. See also: U.S.C. Title 42—The Public Health and Welfare, Chapter 6A—Public Health Service, Subchapter V—Health Professions Education, Part F—General Provisions, § 295m. Prohibition against discrimination on basis of sex.; Texas Woman's University. 2008a. *Brief History of TWU*: Texas Woman's University. <http://www.twu.edu/administration/brief-history.asp> (Accessed: December 6, 2008).; —. 2008b. *Faculty Handbook. History of the University*: Texas Woman's University. <http://twu.edu/faculty/Handbook/a-history.html> (Accessed: December 6, 2008).

109. See Texas Woman's University, Graduate School: <http://www.twu.edu/gradschool/> (Accessed: December 13, 2008).

The story of Douglass Residential College of Rutgers University is embedded within the comprehensive administrative, intellectual, and physical structures history of Rutgers, which was chartered in 1766 as Queen's College and renamed Rutgers College in 1825. Later in the nineteenth century, Rutgers College accepted the terms of the Morrill Act of 1862 and established Rutgers Scientific School. Rutgers also had an agricultural school. In 1917, the scientific and agricultural schools at Rutgers were designated the State University of New Jersey—a public division within the private Rutgers College. Douglass Residential College, founded with public funds in 1918 as the New Jersey College for Women (NJC), was a division of the state university that maintained separate physical, administrative, and intellectual structures. In 1955, NJC was renamed Douglass College in honor of its founder and first dean, Mabel Smith Douglass (1874-1933). In 1956, the public and private schools were combined under a state-appointed Board of Governors as “Rutgers, The State University of New Jersey,” and the private school ceased to exist. In 2004, Rutgers initiated another reorganization of its schools and colleges that took effect in the fall of 2007. As part of this most recent reorganization, Douglass College became a residential college for women within New Jersey's public research university, Rutgers, The State University of New Jersey.¹¹⁰ Under Section 1686 of Title IX of the Educational Amendments of 1972, a public university that receives Federal funds is not prohibited from maintaining separate living facilities for women.¹¹¹

According to Solomon, the first state universities to accept women were Iowa (in 1855); Wisconsin (in 1867); Kansas, Indiana, Minnesota

110. Tulli, V. 2006. “What's in a Name?”. *Friends of Rutgers English: A Newsletter for Alumni and Friends of the Department of English*: <http://english.rutgers.edu/alumni/newsletter/ss06/phprint.php> (Accessed: December 6, 2008). Douglass College. 2008. *Rutgers: Douglass Residential College*. Rutgers University-New Brunswick Campus: Rutgers, The State University of New Jersey. <http://drc.rutgers.edu/> (Accessed: October 9, 2008). The Associated Press. 2006. “Board Approves Reorganization at Rutgers”. *The New York Times*. <http://www.nytimes.com/2006/03/11/nyregion/11rutgers.html> (Accessed: December 6, 2008). March 11, 2006.

111. 1972. Title IX of the Education Amendments of 1972. 20 U.S.C. §§ 1681-1688 (U.S.C. Title 20, Education; Chapter 38 – Discrimination based on sex or blindness). United States of America: United States Department of Justice. <http://www.usssdoj.gov/crt/cor/coord/titleixstat.htm> (Accessed: October 16, 2008). Section 1686: “Notwithstanding anything contrary contained in this chapter, nothing contained herein shall be construed to prohibit any educational institution receiving funds under this Act, from maintaining separate living facilities for the different sexes.”

(in 1869); Missouri, Michigan, and California (in 1870).¹¹²

We have provided only a brief glance at nineteenth-century private and public colleges for women in the United States, and leave to other scholars the work to trace and compare the evolution of the administrative, intellectual, and physical structures of these institutions. In *Alma Mater*, Horowitz concentrates on the physical structures of the Seven Sisters colleges in sociological terms. She asks how the buildings affect the women who inhabit them.¹¹³ Our interest is the interactions between the physical, administrative, and intellectual structures. Information provided in existing secondary sources on the administrative structures of these institutions, including the original language of their corporate charters, is thin.

THE SECOND MORRILL ACT OF 1890 AND HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

The Thirteenth and Fourteenth Amendments to the Constitution of the United States, both ratified after the passage of the Morrill Act of 1862, provide context for some of the provisions of the Second Morrill Act of 1890. In January 1865, Congress passed the Thirteenth Amendment to the Constitution of the United States, abolishing slavery. In December of that year, after the end of the Civil War, it was ratified:

“Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.”¹¹⁴

In 1868, approximately three years later, the Fourteenth Amendment to the Constitution of the United States was ratified:

“All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state

112. Solomon, B. M. 1985. *In the Company of Educated Women*. New Haven: Yale University Press. p. 53. Solomon cites Mabel Newcomer, *A Century of Higher Education for American Women* (New York: Harper 1959), p. 14.

113. Horowitz, H. L. 1993. *Alma Mater: Design and Experience in the Women's Colleges from their Nineteenth-Century Beginnings to the 1930s* [Second Edition]. Amherst, Massachusetts: University of Massachusetts Press.

114. Constitution of the United States, Amendment XIII, Section 1. Passed by Congress, January 31, 1865, ratified December 6, 1865.

Table 7.4
Black Land-Grant Colleges and Universities
established under the Morrill Act of 1890

State	1890 Land-grant institutions	Year Established	1890 Morrill Act terms accepted by state
Alabama	Tuskegee University (private) Alabama A&M University (public)	1881 1875	1899 1891
Arkansas	University of Arkansas – Pine Bluff (public)	1873	1891
Delaware	Delaware State University (public)	1891	1891
Florida	Florida A&M University (public)	1887	1891
Georgia	Fort Valley State University (public)	1895	1949
Kentucky	Kentucky State University (public)	1886	1893
Louisiana	Southern University and A&M College (public)	1880	1893
Maryland	University of Maryland – Eastern Shore (public)	1887	1892
Mississippi	Alcorn State University (public)	1871	1890
Missouri	Lincoln University (public)	1866	1891
North Carolina	North Carolina A&T State University (public)	1894	1891
Oklahoma	Langston University (public)	1897	1899
South Carolina	South Carolina State University (public)	1896	1896
Tennessee	Tennessee State University (public)	1913	1891
Texas	Prairie View A&M University (public)	1876	1891
Virginia	Virginia State University (public)	1883	1891
West Virginia	West Virginia State University (public)	1892	1891

Sources for Table 7.4 appear on the following page.

Sources for Table 7.4:

United States Department of Agriculture, Cooperative State Research, Education, and Extension Services. http://www.csrees.usda.gov/qlinks/partners/state_partners.html (Accessed: September 26, 2008). Year of establishment from: Roebuck and Murty (1993), *Historically Black Colleges and Universities: Their Place in American Higher Education*. Chapter 3, "Profiles of Historically Black Colleges and Universities," pp. 53-96.

Roebuck, J. B., Murty, K. S. 1993. *Historically Black Colleges and Universities: Their Place in American Higher Education*. Westport, Connecticut: Praeger. Roebuck and Murty (p. 87) state that Savannah State University in Georgia (est. 1890) was "one of the first black public land-grant colleges established by the Morrill Act of 1890," and include this institution in their "Table 4.2, Historically Black Land-Grant Colleges and Universities," (p. 101); however, they neglect to mention that in 1947 this institution ceased to be a land-grant institution. See: Savannah State University. 2001. Employee Handbook. Savannah, Georgia: Savannah State University. <http://irp.savstate.edu/irp/Univ-Docs/StafBook.htm>. Accessed: September 27, 2008. Quote from employee handbook: "By Act of the General Assembly on November 26, 1890, the State of Georgia established in connection with the State University, and forming one of the departments thereof, a school for the education and training of Negro students. [...] The institution ceased to be a land grant institution in 1947 and was renamed Savannah State College in 1950."

In 1949, Fort Valley State University was officially designated a land-grant institution for black Americans by the Georgia legislature. See: Fort Valley State University. 2008. About FVSU: History: Fort Valley State University. <http://www.fvsu.edu/about/history>. Accessed: September 27, 2008.

For the years of state acceptance of 1890 Morrill Act terms, see Holmes, D. O. W. 1970. *The Evolution of the Negro College* [reprinted from the edition of 1934, issued as the author's Ph.D. dissertation, Teachers College, Columbia University]. New York: AMS Press., "Table VII, Present Names, Location, Date of State Acceptance of Terms Under Morrill Act of 1890, and Date of Establishment of Land-Grant Colleges for Negroes," p. 153.

For dates of establishment and land-grant status, see also: Davis, J. W. 1933. "The Negro Land-Grant College". *The Journal of Negro Education* 2: 312-328., Table, p. 316.

For Prairie View A&M University year of establishment see:<http://www.pvamu.edu/pages/605.asp>, "History of Prairie View A&M University." Excerpts taken from: "Prairie View, A Study In Public Conscience" by Dr. George Ruble Woolfolk - "A Centennial History of Texas A&M University, 1876-1976 Vol. II" by Henry C. Dethloff, Edited by Frank D. Jackson. Accessed: September 27, 2008.

deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.”¹¹⁵

The Fourteenth Amendment granted citizenship to “all persons born or naturalized in the United States,” which included former slaves that had been freed under the Thirteenth Amendment. It also says that the states shall not make laws that abridge the privileges of citizens and shall not deny any person the equal protection of the laws. The Second Morrill Act of 1890, passed after the ratification of the Thirteenth and Fourteenth Amendments to the Constitution, is consistent with the Fourteenth Amendment’s equal protection clause. It said that no state that made a distinction based on race in the admission of students would receive money from the federal government for the support of their land-grant colleges. The 1890 Act sought to benefit all citizens regardless of race. It required the federal funds distributed to the states to be “equitably divided” and gave the states permission to establish separate colleges for white and black students.¹¹⁶

The Second Morrill Act encouraged the founding of seventeen publicly-controlled black land-grant colleges. Some of these were established as new state colleges, and others were chosen from among existing institutions. In addition to the seventeen public institutions, a privately-controlled institution, Tuskegee University, also was designated as a land-grant institution. This Act enabled those Historically Black Colleges and Universities (HBCUs) chosen by their states to receive the land-grant designation to retain their historical identity while also receiving federal funds.

Prior to the 1890 Act, three states had funded institutions of higher education for blacks with allocations from their 1862 Morrill Act endowment. The institutions were Alcorn State University in Mississippi, the Hampton Institute in Virginia, and Claflin University in South Carolina. In 1920, the Virginia legislature transferred the land-grant designation from the Hampton Institute to what is now Virginia State College. In 1896, Claflin’s land-grant designation was transferred to

115. Constitution of the United States, Amendment XIV, Section 1. Ratified July 9, 1868. Passed by Congress June 13, 1866. Ratified July 9, 1868

116. In 1896, the legitimacy of “separate but equal” laws was upheld by the U.S. Supreme Court in *Plessy v. Ferguson*, 163 U.S. 537. In 1954, in *Brown v. Board of Education*, 347 U.S. 483, the U.S. Supreme Court held that racial segregation of students in public schools was a violation of the equal protection clause of the Constitution’s Fourteenth Amendment.

the Colored Normal, Industrial, Agricultural and Mechanical College of South Carolina, renamed South Carolina State University in 1954.¹¹⁷

The Higher Education Act of 1965 defined Historically Black Colleges and Universities as institutions of higher education that were established prior to 1964 that have a principal mission to provide education to black Americans.¹¹⁸ In 2007, the U.S. Department of Education identified forty four-year public HBCUs, forty-nine four-year private HBCUs, and fourteen two-year HBCUs (eleven public and three private).¹¹⁹

Each of the black land-grant institutions established and designated by the seventeen southern and Border States under the provisions of the Morrill Act of 1890 has a unique and important history that lies beyond the scope of this book. Profiles of these institutions are included in Roebuck and Murty's book, *Historically Black Colleges and Universities: Their Place in American Higher Education* (1993). Dwight Oliver Wendell Holmes (1877-1963) provides a detailed early history of the establishment of HBCUs in his book, *The Evolution of the Negro College* (1934).

117. Holmes, D. O. W. 1970. *The Evolution of the Negro College* [reprinted from the edition of 1934, issued as the author's Ph.D. dissertation, Teachers College, Columbia University]. New York: AMS Press. pp. 150-151. 2008. "South Carolina State University" *Encyclopædia Britannica*: Encyclopædia Britannica Online. 28 Sept. 2008, <http://search.eb.com/eb/article-9002310>.

118. 1965a. Higher Education Act of 1965 (as amended). 20 U.S.C. 1061 (Title 20—Education, Chapter 28—Higher Education Resources And Student Assistance, Subchapter III—Institutional Aid, Part B—Strengthening Historically Black Colleges and Universities, Sec. 1061. Definitions). United States of America. The definition of an HBCU given in 20 U.S.C. 1061 appears without citation in Roebuck, J. B., Murty, K. S. 1993. *Historically Black Colleges and Universities: Their Place in American Higher Education*. Westport, Connecticut: Praeger. p. 3. In 1965, in response to financial discrimination by the states and the federal government against public and private Black colleges and universities, Congress approved a program, as part of the Higher Education Act of 1965, to provide additional aid to HBCUs. See: 1965b. Higher Education Act of 1965 (as amended). 20 U.S.C. 1060 (Title 20—Education, Chapter 28—Higher Education Resources And Student Assistance, Subchapter III—Institutional Aid, Part B—Strengthening Historically Black Colleges and Universities, Section 1060, Findings and Purposes). United States of America.

119. U.S. Department of Education, President's Board of Advisors on Historically Black Colleges and Universities. 2007. *Fulfilling the Covenant—The Way Forward*. 2004-05 Annual Report to the President On the Results of Participation of Historically Black Colleges and Universities In Federal Programs. White House Initiative on Historically Black Colleges and Universities: U.S. Dept. of Education: <http://www.ed.gov/about/inits/list/whhbcu/edlite-index.html>. <http://www.ed.gov/about/inits/list/whhbcu/pba-hbcu-report-2004-05.pdf>. Accessed: September 25, 2008. Appendix F: Historically Black Colleges and Universities, pp. 46 – 48.

THE 1994 LAND-GRANT INSTITUTIONS

The 1994 Land-Grant Institutions are Native American tribally-controlled institutions that were given land-grant status when Congress passed the *Improving America's Schools Act of 1994*.¹²⁰ These institutions serve Native American populations, many of which are located in remote communities that lack access to higher education. The intellectual structure of these institutions includes curricula that are culturally relevant to the populations served.¹²¹ Most of the 1994 Land-Grant Institutions offer the two-year Associate Degree and a few offer programs leading to the Bachelor of Arts and Masters Degrees.¹²²

The USDA's Cooperative State Research Education and Extension Service (CSREES) administers programs designed specifically for these colleges such as the Tribal Colleges Research Grants Program for research related to the agricultural sciences. Research programs funded under this program must be performed under a cooperative agreement between the 1994 institution and at least one 1862 or 1890 land-grant college or university.¹²³ Examples of research projects funded by this program include an investigation of dead zone

120. 1994. *An Act to extend for five years the authorizations of appropriations for the programs under the Elementary and Secondary Education Act of 1965, and for certain other purposes*. Short Title: "Improving America's Schools Act of 1994". Title V—Miscellaneous Provisions. Part C—1994 Institutions. Sections 531-535. Short Title: "Equity in Educational Land-Grant Status Act of 1994". Pages 531-534. H.R. 6. One Hundred Third Congress of the United States of America: The Library of Congress. Table of 1994 land-grant institutions is based on data from CSREES (Cooperative State Research, Education, and Extension Service), an agency located within the United States Department of Agriculture: United States Department of Agriculture: CSREES (Cooperative State Research - Education - and Extension Service). 2008. *State & National Partners: 1994 land-grant colleges and universities*: http://www.csrees.usda.gov/qlinks/partners/1994_land.pdf (Accessed: June 3, 2008).

121. United States Department of Agriculture, Office of the Assistant Secretary for Civil Rights. 2008. *FAQ: 1994 Land-Grant Institutions*: http://www.ascr.usda.gov/faq/faq1994_cr.html (Accessed: September 29, 2008).

122. For information about degree programs at individual institutions, see college profiles provided by the American Indian Higher Education Consortium at: <http://www.aihec.org/colleges/TCUprofiles.cfm> (Accessed: December 13, 2008).

123. United States Department of Agriculture, Office of the Assistant Secretary for Civil Rights. 2008. *FAQ: 1994 Land-Grant Institutions*: http://www.ascr.usda.gov/faq/faq1994_cr.html (Accessed: September 29, 2008). United States Department of Agriculture (CSREES). 2008. Tribal Colleges Research Grants Program: Cooperative State Research, Education, and Extension Service (CSREES). <http://www.csrees.usda.gov/fo/tribalcollegesresearchtrgrg.cfm> (Accessed: November 18, 2008).

on tribal fisheries in Bellingham Bay, Washington (Northwest Indian College, 2007-2009), and a project to improve the agricultural economy of the Fort Belknap Indian Reservation (Fort Belknap College, 2005-2009).¹²⁴

Table 7.5 (part 1/2) 1994 Land-Grant Institutions	
Location	Name of Institution (year of establishment: tribe)
Arizona	– Diné College (1968: Navajo Nation) – Tohono O’odham Community College (1998: Tohono O’odham Nation)
California	– D-Q University (1971: Coalition of 19 tribes and bands)
Kansas	– Haskell Indian Nations University (1970: Federally chartered)
Michigan	– Saginaw Chippewa Tribal College (1998: Saginaw Chippewa Indian Tribe) – Bay Mills Community College (1984: Bay Mills Indian Community)
Minnesota	– Leech Lake Tribal College (1990: Leech Lake Tribal Council) – White Earth Tribal and Community College (1997: White Earth Reservation Tribal Council) – Fond du Lac Tribal and Community College (1987: Fond du Lac Band of Lake Superior Chippewa)
Montana	– Blackfeet Community College (1974: Blackfeet Tribal Business Council) – Chief Dull Knife College (1975: Northern Cheyenne Tribal Council) – Fort Belknap College (1984: Gros Ventre and Assiniboine Tribes) – Fort Peck Community College (1978: Assiniboine and Sioux Tribes) – Little Big Horn College (1980: Crow Tribal Council) – Salish Kootenai College (1977: Confederated Salish and Kootenai Tribal Council) – Stone Child College (1984: Chippewa Cree Business Committee)
Nebraska	– Nebraska Indian Community College (1979: Omaha Tribal Council, Santee Sioux Tribe, and Yankton Sioux Tribe) – Little Priest Tribal College (1996: Winnebago Tribe)

124. —. 2008. Tribal Colleges Research Grants Program: Cooperative State Research, Education, and Extension Service (CSREES). <http://www.csrees.usda.gov/fo/tribalcollegesresearchtrgrp.cfm> (Accessed: November 18, 2008). See abstracts of CSREES funded projects numbers WNE-2007-02104, and MONE-2005-01960.

Table 7.5 (part 2/2) 1994 Land-Grant Institutions	
Location	Name of Institution (year of establishment: tribe)
New Mexico	<ul style="list-style-type: none"> – Navajo Technical College (1979: Navajo Nation) – Institute of American Indian Arts (1988: Congressionally chartered) – Southwestern Indian Polytechnic Institute (1971: Federally chartered)
North Dakota	<ul style="list-style-type: none"> – Fort Berthold Community College (1974: Three Affiliated Tribes of the Arikara, Hidatsa, and Mandan) – United Tribes Technical College (1969: North Dakota Development Corp.) – Cankdeska Cikana Community College (1974: Spirit Lake Sioux Tribal Council) – Turtle Mountain Community College (1972: Turtle Mountain Band of Chippewa) – Sitting Bull College (1973: Standing Rock Sioux Tribe)
South Dakota	<ul style="list-style-type: none"> – Sisseton Wahpeton College (1979: Sisseton Wahpeton Sioux Tribal Council) – Sinte Gleska University (1971: Rosebud Sioux Tribal Council) – Oglala Lakota College (1971: Oglala Sioux Tribal Council)
Washington	<ul style="list-style-type: none"> – Northwest Indian College (1983: Lummi Indian Business Council)
Wisconsin	<ul style="list-style-type: none"> – College of the Menominee Nation (1993: Menominee Nation) – Lac Courte Oreilles Ojibwa Community College (1982: Lac Courte Oreilles Band of Lake Superior Chippewa)
<p>Sources for Table 7.5:</p> <p>CSREES (Cooperative State Research, Education, and Extension Service), an agency located within the United States Department of Agriculture: 2008. State and National Partners: 1994 land-grant colleges and universities. http://www.csrees.usda.gov/qlinks/partners/1994_land.pdf (Accessed June 3, 2008).</p> <p>CSREES, Equity in Educational Land Grant Status, http://www.csrees.usda.gov/about/offices/legis/edequity.html (Accessed Nov. 18, 2008).</p> <p>Tribal Colleges: An Introduction. Prepared by American Indian Higher Education Consortium and The Institute for Higher Education Policy. February 1999. Table: "Tribal Colleges in the United States," page A-5.</p> <p>Note: Si Tanka University (previous names: Cheyenne River Community College, Si Tanka College, and Si Tanka/Huron University) is often included in a list of the 1994 land-grant institutions. The records of the Higher Learning Commission of the North Central Association of Colleges and Schools show that this institution's accreditation was withdrawn in 2006. On May 11, 2005, The Rapid City Journal (South Dakota) published Associated Press writer Dennis Gale's report that Si Tanka University declared bankruptcy and closed in 2005. (The Associated Press State & Local Wire 2005) (Gale D. 2005) (Indianz.com-Your Internet Resource 2005)</p>	

References: Chapter 7

U.S.C. Title 42—The Public Health and Welfare, Chapter 6A—Public Health Service, Subchapter V—Health Professions Education, Part F—General Provisions, § 295m. Prohibition against discrimination on basis of sex.

1769. *Charter of Dartmouth College, December 13, 1769*: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

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CHAPTER 8

A National University

“The strength and spring of every free government, is the virtue of the people; virtue grows on knowledge, and knowledge on education.”
—Moses Mather, 1775 1

The National University was the road not taken in the United States. It was also the road not available given the unique early history of the nation that reserved extensive powers to individual states. Creation of a national university was considered and supported by several early leaders of the nation, and eventually other national research institutions emerged that enabled the federal government to utilize the growing state university system in areas of national interest. This history helps put into focus the importance of a public university system to the national interest and the powerful forces at work shaping the system we now have.

The structure of the government of the United States is more complex than that of a university; however, it can be divided into broad administrative, intellectual, and physical structures. The federal government’s buildings, grounds, and other physical property, whether located in Washington, D.C., or elsewhere, comprise its physical structure. Its administrative structure, outlined by the Constitution of the United States, includes the executive, legislative, and judicial branch-

1. Sandoz, E., ed. 1998. *Political Sermons of the American Founding Era: 1730-1805*, 2 vols, Foreword by Ellis Sandoz (2nd ed. Indianapolis: Liberty Fund, 1998). Vol. 1. Chapter: 15: Moses Mather, America’s Appeal To The Impartial World. Accessed from <http://oll.libertyfund.org/title/816/69260> on 2009-01-26. Also quoted in: Amar, A. R. 1998. *The Bill of Rights: Creation and Reconstruction*. Harrisonburg, Virginia: R.R. Donnelley & Sons Company. p. 132. Amar cites Gordon S. Wood, *The Creation of the American Republic, 1776-1787*, Chapel Hill, Published for the Institute of Early American History and Culture at Williamsburg, Va., by the University of North Carolina Press [1969], p. 120.

es.² The federal scientific agencies and the Library of Congress are elements of the nation's intellectual structure. If a national university, with a governance structure linked directly to the administrative structure of the federal government, had been established, it would have been part of the nation's intellectual structure.

In the late eighteenth century, during the formation of the United States' government after the Revolutionary War, the role of education in the protection and continuance of the principles of the American Revolution and the philosophical foundations of the Constitution was a central concern.

Several essays on the role of education in society were published at the same time that the nation's founding documents were drafted.³ Rudolph says that the essay authors held a greater concern for the needs of society as a whole than for those of the individual.⁴ Samuel Knox said that a system of national education should have two leading objects: "the improvement of the mind and the attainment of those arts

2. The United States military is part of the federal government's legislative branch. See: United States Constitution, Article I, Section 8: "The Congress shall have power to ... provide for the common defense and general welfare of the United States ... To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water; To raise and support armies ... To provide and maintain a navy; To make rules for the government and regulation of the land and naval forces; To provide for calling forth the militia to execute the laws of the union, suppress insurrections and repel invasions; To provide for organizing, arming, and disciplining, the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the states respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress ..." The Central Intelligence Agency (CIA), an independent U.S. Governmental Agency, is responsible for providing national security intelligence to senior U.S. policymakers. It was established by the National Security Act of 1947, but has its origins in the Office of Strategic Services, established in 1942. The CIA is overseen by Congress and the Executive Branch. See: <https://www.cia.gov/> (Accessed: February 23, 2009).

3. Founding documents include the Declaration of Independence, the Constitution of the United States, and the Bill of Rights. The Federalist Papers were also published during this period.

4. Rudolph, F., ed. 1965. *Essays on Education in the Early Republic*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. p. viii, xv. Essays on education were written by Benjamin Rush, Noah Webster, Samuel Harrison Smith, Samuel Knox, Robert Coram, James Sullivan, and Nathaniel Chipman, Simeon Doggett, Amable-Louis-Rose Lafitte du Courteuil, and Pierre Samuel du Pont de Nemours. Not all of these writers are represented in Rudolph's book. Siobhan Moroney says that the works of these writers do not represent the dominant thoughts on education of the eighteenth century. See: Moroney, S. 1999. "Birth of a Canon: The Historiography of Early Republican Educational Thought". *History of Education Quarterly* 39: 476-491.

on which the welfare, prosperity, and happiness of society depend.”⁵

In 1779, Thomas Jefferson submitted his “Bill for the More General Diffusion of Knowledge” to the Virginia General Assembly. In the preamble to his bill, Jefferson argued for publicly-funded education to prepare those who were most capable of serving the nation and linked this idea to the protection of the nation’s rights and liberties:

“And whereas it is generally true that the people will be happiest whose laws are best, and are best administered, and that laws will be wisely formed, and honestly administered, in proportion as those who form and administer them are wise and honest; whence it becomes expedient for promoting the publick happiness that those persons, whom nature hath endowed with genius and virtue, should be rendered by liberal education worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow citizens, and that they should be called to that charge without regard to wealth, birth or other accidental condition or circumstance; but the indigence of the greater number disabling them from so educating, at their own expence, those of their children whom nature hath fitly formed and disposed to become useful instruments for the public, it is better that such should be sought for and educated at the common expence of all, than that the happiness of all should be confided to the weak or wicked...”⁶

The ideas expressed in Jefferson’s 1779 Bill are echoed in Noah Webster’s 1788 essay, “On the Education of Youth in America.” In his essay, Webster states:

“In our American republics, where [government] is in the hands of the people, knowledge should be universally diffused by means of public schools. Of such consequence is it to society, that the people who make laws, should be well informed, that I conceive no Legislature can be justified in neglecting proper establishments for this purpose. When I speak

5. Knox, S. 1799. *An essay on the best system of liberal education, adapted to the genius of the government of the United States. Comprehending also, an uniform, general plan for instituting and conducting public schools, in this country, on principles of the most extensive utility. To which is prefixed, an address to the legislature of Maryland on that subject. By the Rev. Samuel Knox, M.A. president of the Frederick Academy. [One line from Horace];* Baltimore – Printed by Warner & Hanna, Harrison-Street., –1799. Provider: NewsBank/Readex, Database: Early American Imprints, Series I: Evans. Record Number: 0F30193505AF69F0. Section Fourth: The Extent of a Plan of National Education Considered. (first paragraph).

6. Jefferson, T. 1779. *A Bill for the More General Diffusion of Knowledge*: Jefferson, Thomas, 1743-1826. Public Papers. Electronic Text Center, University of Virginia Library. University of Virginia. <http://etext.virginia.edu/toc/modeng/public/JefPap.html> (Accessed: February 1, 2009).

of a diffusion of knowlege, I do not mean merely a knowlege of spelling books, and the New Testament. An acquaintance with ethics, and with the general principles of law, commerce, money and government, is necessary for the yeomanry of a republican state.”⁷

Perhaps the first public mention of a National University appeared in an essay by Benjamin Rush, published in the January 1787 issue of the magazine *American Museum*.⁸ In his essay, “Address to the people of the united states,” Rush, a physician and educator who attended the Continental Congress and signed the Declaration of Independence, encouraged the establishment of a “federal university” and described the intellectual structure of such an institution, where “everything connected with government, such as history—the law of nature and nations—the civil law—the municipal laws of our county—and the principles of commerce—be taught by competent professors.” In addition, he called for a professor of “oeconomy” to “unfold the principles and practice of agriculture and manufactures of all kinds.” According to Rush, students would attend this national university after completing their studies in state colleges.

Harry Gehman Good, Professor Emeritus of Education at The Ohio State University, notes that some historians (specifically, George B. Goode, B.A. Hinsdale, and John W. Hoyt) claim that the first mention of a national university was made by Samuel Blodget, Jr. (1757-1814) in his book “Economica,” published in 1806.⁹ Blodget wrote:

7. Webster, N. 1788. Noah Webster, “On the Education of Youth in America” (1788). Webster, Noah. *A Collection of Essays and Fugitiv Writings on Moral, Historical, Political and Literary Subjects*. Boston, 1790. Reprint. Delmar, N.Y.: Scholars’ Facsimiles & Reprints, 1977. in Kurland P. B., Lerner R., eds. *The Founders’ Constitution* [Volume 1, Chapter 18, Document 26, Page 679] Chicago: The University of Chicago Press. <http://press-pubs.uchicago.edu/founders/documents/v1ch18s26.html> (Accessed: February 2, 2009).

8. Rush, B. 1787. “Address to the people of the united states”. *The American Museum; or, Repository of Ancient and Modern Fugitive Pieces & c. Prose and Poetical* (1787-1788). Philadelphia: January 1787. Vol. 1, Iss. 1; pg. 8, 4 pgs. <http://www.proquest.com/> (accessed January 17, 2009). American Periodicals Series Online database. (Document ID: 901145482). See also: —. 1788a. “Plan of a federal university,—Ascribed to dr. Rush”. *The American Museum; or, Repository of Ancient and Modern Fugitive Pieces & c. Prose and Poetical* (1787-1788). Vol. 4, Iss. 5; pg. 442, 3 pgs. Philadelphia: November 1, 1788. <http://www.proquest.com/> (accessed January 17, 2009). American Periodicals Series Online database. (Document ID: 833798622).

9. Good, H. G. 1916. “Who First Proposed a National University?”. *School and Society* III: 387-391. See pp. 389-391. H.G. Good lists the following individuals who included Blodget’s story in their publications: Dr. G. B. Goode, “The Origin of the National Scientific

“...the first we ever heard of a national university; it was in the Camp at Cambridge, in October, 1775, when Major William Blodget went to the quarters of general Washington, to complain of the ruinous state of the Colleges, from the conduct of the militia quartered therein. The writer of this essay being in Company with his friend and relation, and hearing general Greene join in lamenting the then state of the oldest seminary in Massachusetts, observed, *merely to console the company of friends*, that to make amends for these injuries, after our war, he hoped, we should erect a noble national university, at which the youth of all the world might be proud to receive instruction. What was thus pleasantly said, Washington immediately replied to, with that inimitably expressive and truly interesting look, for which he was sometimes so remarkable. ‘*Young man you are a prophet! inspired to speak, what I feel confident will one day be realized.*’”¹⁰

Good says that Blodget’s “account, sole record of a chance meeting and a casual conversation, was not published until fully thirty years after the event narrated, and about seven years after the death of Washington, the principal speaker.”¹¹ Good asks why historians have not expressed any doubt regarding the veracity of the story and points to this comment in Blodget’s Appendix: “It would be an endless task, and require volumes to hold all that has been written in favor of a federal *heart* and *university*, in our periodical papers, since 1775. We shall select only a few.” The earliest published mention of a

and Educational Institutions of the United States,” in *Report of the American Historical Association*, 1889; B.A. Hinsdale, “Documents Illustrative of American Educational History,” in *U.S. Commissioner’s Report for 1892-93*, Volume II, p. 1295; and Dr. John W. Hoyt, “Memorial to the Senate of the United States on a National University,” in *Senate Miscellaneous Documents*, 53d Congress, First Session, Volume V, p. 27-. Blodget’s story also appears in Madsen, D. L. 1966. *The National University: Enduring Dream of the USA*. Detroit: Wayne State University Press. p. 15.

10. Quote (emphasis in original) appears on pp. 389-390 in: Good, H. G. 1916. “Who First Proposed a National University?”. *School and Society* III: 387-391. See also: Blodget, S. 1806. *Economica: a statistical manual for the United States of America*: Washington, [D.C.] : Printed for the author, 1806. pp. 22-23. The 1787 quote from an unidentified publication that appears in Blodget’s *Economica* without attribution is also quoted in Hoyt, J. W. 1892. *Memorial in Regard to a National University*. Washington, D.C.: Government Printing Office. p. 29. See also the transcript of the presentation of Blodget’s proposal to Congress in: *Annals of Congress*, 7th Congress, 2nd Session (January 1803), 345-346.

11. Good, H. G. 1916. “Who First Proposed a National University?”. *School and Society* III: 387-391. See page 391. A short biography of Samuel Blodget, Jr. included in Good’s essay reveals that Blodget was a real estate speculator who had solicited contributions for a national university, was imprisoned for debt in 1802, and afterward never replied to requests from fund contributors who inquired about the disposition of the money.

national university selected by Blodget, and quoted in his Appendix, is dated 1787, not 1775.¹²

On August 18, 1787 at the Constitutional Convention at Philadelphia James Madison, delegate from Virginia, submitted a list of proposed powers to be vested in the Legislature of the United States to be added to those already under consideration. His list included the powers “To establish an University,” and “To encourage by premiums & provisions, the advancement of useful knowledge and discoveries.” On the same day, Charles Cotesworth Pinckney, from South Carolina, moved to include a list of propositions that included the power “To establish seminaries for the promotion of literature and the arts & sciences.” Madison’s and Pinckney’s propositions were referred to the Committee of Detail for analysis and consideration;¹³ subsequently, since the Committee had not issued a recommendation for their earlier proposals, in Convention on September 14, Madison and Pinckney moved to give Congress the power “to establish an University, in which no preferences or distinctions should be

12. Ibid. p. 391. Also: Blodget, S. 1806. *Economica: a statistical manual for the United States of America*: Washington, [D.C.] : Printed for the author, 1806. Appendix, p. iv. Note: A citation for Blodget’s first example would be: 1787a. “An Essay on the Means of Promoting Federal Sentiments in the United States, by a Foreign Spectator” [Continued from No. 548]. *The Independent Gazetteer*. September 15, 1787; Volume VI, Issue 550, Page 2. Philadelphia, Pennsylvania: Archive of Americana, America’s Historical Newspapers. Published by Readex, a division of NewsBank, Inc. <http://infoweb.newsbank.com.oca.ucsc.edu>. (Accessed: January 22, 2009).

Blodget claims that his second example was published in 1788, but we found the following citation: 1787b. “An Essay on the Means of Promoting Federal Sentiments in the United States, by a Foreign Spectator” [Continued from No. 546]. *The Independent Gazetteer*. September 13, 1787; Volume VI, Issue 548, Page 2. Philadelphia, Pennsylvania: Archive of Americana, America’s Historical Newspapers. Published by Readex, a division of NewsBank, Inc. <http://infoweb.newsbank.com.oca.ucsc.edu>. (Accessed: January 22, 2009). The “Foreign Spectator” who wrote the essays published in *The Independent Gazetteer* is the Federalist Nicholas Collin (1746-1831), who was “the pastor of the Old Swede’s Church on the Delaware River in Philadelphia. A native of Sweden, Collin wrote twenty-nine essays under the general heading ‘An Essay on the Means of Promoting Federal Sentiments in the United States.’” See: Sheehan, C. A. 1998. Chapter: “A Foreign Spectator” [Nicholas Collin] “An Essay on the Means of Promoting Federal Sentiments in the United States”: XXIV, XXV, XXVIII, in Sheehan C. A., McDowell G. L., eds. *Friends of the Constitution: Writings of the “Other” Federalists, 1787-1788*. Indianapolis: Liberty Fund [Accessed from <http://oll.libertyfund.org/title/2069/156149> on January 22, 2009]. p. 44.

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13. Farrand, M., ed. 1966. *The Records of the Federal Convention of 1787*. [1937 revised edition in four volumes. First published in 1911] New Haven: Yale University Press 1966; (London: H. Milford, Oxford University Press). Volume II, pp. 321-326.

allowed on account of religion.”¹⁴ Madison’s notes from the Convention state that Gouverneur Morris from Pennsylvania responded: “It is not necessary. The exclusive power at the Seat of Government, will reach the object.”¹⁵ Farrand interprets Morris’s comment to mean that “a power to establish a national university free from religious distinctions was considered to be included in the power over the seat of government, it being assumed that that was where it would be located.”¹⁶ Legal historian Edward Walterscheid says that Morris was “arguing that Congress could do whatever it wanted to in the proposed federal district, in the absence of any express constitutional prohibition.”¹⁷ It is not known if this argument influenced the vote, but Madison and Pinckney’s motion failed, six to four, with one state’s vote divided. John R. Vile, Professor of Political Science at Middle Tennessee State University, says that it is difficult to ascertain whether the delegates rejected the idea to give Congress the power to establish a national university because they believed that such a power was included within congressional power over the nation’s capital, or because they did not want to Congress to have such a power.¹⁸

R. Freeman Butts (1910-2010), Professor Emeritus, Teachers College, Columbia University, says that many of the delegates to the Constitutional Convention thought that education was a function of the church and of local and state government. He explains that the Feder-

14. *Ibid.* Volume II, p. 616. Notes of James Madison, Friday, September 14, 1787, in Convention. The authority of Congress to establish a “Federal University” is also mentioned in the Pinckney Plan. Recall that in 1785, James Madison, delegate from Virginia, wrote his “Memorial and Remonstrance Against Religious Assessments,” and was instrumental in the passage of the 1786 Virginia Act for Establishing Religious Freedom.

15. *Ibid.* Volume II, p. 616. See also: Warren, C. 1928. *The Making of the Constitution*. New York: Barnes and Noble, Inc. [first published in 1928 by Harvard University Press and reprinted in 1967 by Barnes and Noble, Inc., through special arrangement with Harvard University Press]. p. 702.

16. Farrand, M. 1913. *The Framing of the Constitution of the United States*. New Haven: Yale University Press. p. 189.

17. Walterscheid, E. C. 2002. *The Nature of the Intellectual Property Clause: A study in historical perspective*. Buffalo, New York: William S. Hein & Co., Inc. Walterscheid’s comments are in footnote 107, which begins on page 174 and continues on page 175. Mr. Walterscheid, an independent legal historian, was employed for twenty-eight years at the University of California’s Los Alamos National Laboratory, serving first as a patent attorney and later as Deputy Laboratory Counsel.

18. Vile, J. R. 2005. “National University”. Pages 516-517. *The Constitutional Convention: A Comprehensive Encyclopedia of America’s Founding*. Santa Barbara, California: ABC-CLIO, Inc.

alists supported a strong national government, but were not interested in education for the common people, and therefore were not interested in national education. The Anti-Federalists favored education for the common people; however, they opposed a strong national government that included control of education. The churches interpreted the First Amendment's guarantee of religious liberty to include the right to control schools.¹⁹ Akhil Reed Amar, Professor of Law at Yale Law School, points out that "the twentieth-century state school is designed to serve a function very similar to that of the eighteenth-century state church: imparting community values and promoting moral conduct among ordinary citizens, upon whose virtue republican government ultimately rests."²⁰

On June 21, 1788, the new Constitution, based on the Virginia Plan, had been ratified by nine of the thirteen states. Later that same year, in his essay "Plan of a Federal University," Benjamin Rush proposed an intellectual structure for a "federal university" that would "prepare our youth for civil and public life."²¹ He suggested the following branches of knowledge to "increase the conveniences of life, lessen human misery, improve our country, promote population, exalt the human understanding, and establish domestic, social and political happiness":

1. The principles and forms of government, applied in a particu-

19. Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. pp. 316-317.

20. Amar, A. R. 1998. *The Bill of Rights: Creation and Reconstruction*. Harrisonburg, Virginia: R.R. Donnelley & Sons Company. pp. 44-45. Professor Amar cites Gordon S. Wood, *The Creation of the American Republic, 1776-1787*, Chapel Hill, Published for the Institute of Early American History and Culture at Williamsburg, Va., by the University of North Carolina Press [1969], p. 427: "Religion was the strongest promoter of virtue, the most important ally of a well-constituted republic." Amar's analysis of the Bill of Rights leads to his statement: "The idea of popular education surfaces over and over in the Bill of Rights ... each of the three intermediate associations it safeguards—church, militia, and jury—was understood as a device for educating ordinary citizens about their rights and duties. An uneducated populace cannot be a truly sovereign populace." p. 133.

21. Rush, B. 1788b. "Plan of a Federal University". *The Federal Gazette, and Philadelphia Evening Post*. Number XXV. October 29, 1788; Pages 2-3. See also: —. 1788a. "Plan of a federal university,—Ascribed to dr. Rush". *The American Museum; or, Repository of Ancient and Modern Fugitive Pieces & c. Prose and Poetical (1787-1788)*. Vol. 4, Iss. 5; pg. 442, 3 pgs. Philadelphia: November 1, 1788. <http://www.proquest.com/> (accessed January 17, 2009). American Periodicals Series Online database. (Document ID: 833798622).

lar manner to the explanation of every part of the Constitution and laws of the United States, together with the laws of nature and nations, which last should include every thing that relates to peace, war, treaties, ambassadors, and the like.

2. History both ancient and modern, and chronology.
3. Agriculture in all its numerous and extensive branches.
4. The principles and practice of manufactures.
5. The history, principles, objects and channels of commerce.
6. Those parts of mathematics which are necessary to the division of property, to finance, and the to principles and practice of war...
7. Those parts of natural philosophy and chemistry, which admit of an application to agriculture, manufactures, commerce and war.
8. Natural history, which includes the history of animals, vegetables and fossils.
9. Philology which should include, besides rhetoric and criticism, lectures upon the construction and pronunciation of the English language.
10. The German and French languages...
11. All those athletic and manly exercises ... which are calculated to impart health, strength, and elegance to the human body.

In this essay, Rush emphasizes the importance of teaching “the principles and forms of government, applied in a particular manner to the explanation of every part of the Constitution and laws of the United States, together with the laws of nature and nations,” but he does not offer a model for the administrative structure of his proposed National University. He seems to suggest that Congress would provide funding for the top administrative official of the institution, the Principal, and for its professors, and that students would pay for each course of lectures. He asks that the degrees conferred by this university “designate the design of an education for civic and public life,” and that after this federal university had been in operation for thirty years, a degree from this institution should be made a requirement for all individuals appointed or elected to public office.²² To place this proposal

22. —. 1788b. “Plan of a Federal University”. *The Federal Gazette, and Philadelphia Evening Post*. Number XXV. October 29, 1788; Pages 2-3. See also: —. 1788a. “Plan of a federal university,—Ascribed to dr. Rush”. *The American Museum; or, Repository of Ancient and Modern Fugitive Pieces & c. Prose and Poetical (1787-1788)*. Vol. 4, Iss. 5; pg. 442, 3 pgs. Philadelphia: November 1, 1788. <http://www.proquest.com/> (accessed January 17,

in chronological context, the experimental Dartmouth University did not appear until 1816, the University of Virginia did not open its doors until 1825, and Morrill Act introduced practical courses related to agriculture and engineering to the nation's institutions of higher education in 1862. Rush's proposal, and many others like his, indicates that the idea for a national institution that offered a practical course of studies, as opposed to the college curriculum typical of that era (dominated by Greek, Latin, and theology), emerged parallel with the drafting of the founding documents of the United States. This idea did not originate with the Morrill Act of 1862.

In 1789, George Washington, a Virginia delegate and President of the Constitutional Convention, was unanimously elected President of the United States by the Electoral College. In his first annual speech to the Senate and House of Representatives, delivered on January 8, 1790, President Washington discussed the importance of education to the nation's well being in broad philosophical terms, and mentions a national university as a means to achieve his goals:

"Nor am I less persuaded, that you will agree with me in opinion, that there is nothing which can better deserve your patronage, than the promotion of science and literature. Knowledge is, in every country, the surest basis of public happiness. In one in which the measures of government receive their impression so immediately from the sense of the community as in ours, it is proportionably essential. To the security of a free constitution it contributes in various ways: by convincing those who are entrusted with the public administration, that every valuable end of government is best answered by the enlightened confidence of the people; and by teaching the people themselves to know and to value their own rights; to discern and provide against invasions of them; to distinguish between oppression and the necessary exercise of lawful authority; between burthens proceeding from a disregard to their convenience, and those resulting from the inevitable exigences of society; to discriminate the spirit of liberty from that of licentiousness—cherishing the first, avoiding the last; and uniting a speedy but temperate vigilance against encroachments, with an inviolable respect to the laws. Whether this desirable object will be best promoted by affording aids to seminaries of learning already established; by the institution of a national university; or by any other expedients, will be well worthy of a place in the deliberations of the Legislature." ²³

2009). American Periodicals Series Online database. (Document ID: 833798622).

23. 1790b. Speech of President Washington, Delivered on Friday, January 8, 1790.

On May 3, 1790, in the Second Session of the First Congress, Washington's comments regarding the encouragement of science and literature were discussed. In relation to educational institutions, one member of Congress wanted to know "what part of the Constitution authorized Congress to take any steps in a business of this kind" and said that he knew of none. Another Congressman supported the idea of establishing a national university, asked for a determination of its consistency with the Constitution, and said that he thought the absence of such an authority should be considered a defect in the Constitution. He said that the liberty of the country and the protection of the Constitution depended on the diffusion of knowledge. Representative Roger Sherman told his colleagues that "a proposition to vest Congress with power to establish a National University was made in the General Convention; but it was negatived. It was thought sufficient that this power should be exercised by the States in their separate capacity." Congress took no action on the matter.²⁴

Following the Constitutional Convention of 1787, in *The Federalist, Number 45*, James Madison had contrasted the powers delegated to the Federal government with those to be reserved to the states:

"The powers delegated by the proposed Constitution to the Federal Government, are few and defined. Those which are to remain in the State Governments are numerous and indefinite. The former will be exercised principally on external objects, as war, peace, negotiation, and foreign commerce; with which last the power of taxation will for the most part be connected. The powers reserved to the several States will extend to all the objects, which, in the ordinary course of affairs, concern the lives, liberties and properties of the people; and the internal order, improvement, and prosperity of the State."²⁵

1st Congress, Second Session. *American State Papers. Documents, Legislative and Executive, of the Congress of the United States, from the First Session of the First to the Second Session of the Twenty-second Congress, Inclusive: Commencing March 3, 1789 and Ending March 3, 1833. Selected and Edited under Authority of Congress, by Walter Lowrie, Secretary of the Senate, and Matthew St. Clair Clarke, Clerk of the House of Representatives.* Volume I, p. 12. Washington, D.C.: Published by Gales and Seaton, 1833.

24. 1790a. *Annals of Congress, First Congress, Second Session, II, 1603-1604.* (Monday, May 3, 1790). Gales, Joseph. editor, *The Debates and Proceedings in the Congress of the United States; with an Appendix containing important state papers and public documents, and all the laws of a public nature; with a copious index.* Volume II, comprising (with volume I) the period from March 3, 1789, to March 3, 1791, inclusive. Library of Congress, <http://lcweb2.loc.gov/ammem/amlaw/lwac.html> (Accessed: January 26, 2009). Washington, D.C.: Gales and Seaton (published in 1834).

25. Madison, J. 1788. *The Federalist, No. 45. The Alleged Danger From the Powers of*

On June 8, 1789, Madison, familiar with the Virginia Declaration of Rights of 1776 written by George Mason,²⁶ proposed several amendments to the Constitution at the first federal Congress. In 1791, ten of these amendments, known as the Bill of Rights, were ratified by the states. The Tenth Amendment, a victory for states' rights, gave the states and the people all powers not explicitly granted to the federal government:

"The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people."²⁷

Academia was not considered when the Tenth Amendment was being crafted, and there was no discussion of what it might mean for higher education when it was approved by Congress. Therefore, with its ratification, the States gained de facto authority over education.²⁸ This had a profound impact on the unfolding of higher education in the United States. The Tenth Amendment pushed the nation away from the establishment and governance of a National University and toward the state universities, which required different levers of control to direct

the Union to the State Governments Considered. For the *Independent Journal*.: Library of Congress, Thomas: The Federalist Papers. http://thomas.loc.gov/home/histdox/fed_45.html (Accessed: January 22, 2009). See also: Cooke, J. E., ed. 1961. *The Federalist*. Middletown, Connecticut: Wesleyan University Press. The Federalist No. 45, James Madison, January 26, 1788 (pp. 308-314. Quote from page 313.)

26. See: Mason, G. 1776. *The Virginia Declaration of Rights: The Charters of Freedom.* The National Archives. http://www.archives.gov/exhibits/charters/virginia_declaration_of_rights.html (Accessed: January 23, 2009). See also: The Constitution of Virginia, Article I, Bill of Rights. Virginia General Assembly. <http://legis.state.va.us/Laws/search/Constitution.htm#1S1>. (Accessed: January 23, 2009).

27. United States Government Printing Office. 1787. Constitution of the United States. GPO Access. Constitution of the United States: Browse, 2002 Edition & Supplements. <http://www.gpoaccess.gov/constitution/browse2002.html> (Last updated: December 5, 2008) (Accessed: June 21, 2009) The Government Printing Office's "GPO Access" site was closed in 2012. See GPO FDSys (Federal Digital System): <http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=GPO&browsePath=The+Constitution+of+the+United+States+of+America%3A+Analysis+and+Interpretation&isCollapsed=false&leafLevelBrowse=false&yord=0>. Tenth Amendment, 1791.

28. See: Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant Movement.* University Park, Pennsylvania: The Pennsylvania State University Press. pp. 36-37. See also: Butts, R. F. 1955. *A Cultural History of Western Education: Its Social and Intellectual Foundations* [Second Edition]. New York: McGraw Hill Book Company, Inc. p. 317.

the nation's academic resources toward programs that would serve the national interest. While Congress has granted corporate charters to private institutions located within Washington, D.C., a National University, if it had been established by Congress, would have been structured as a branch of the federal government, just as the state universities are linked to the civil governments of the states.

The idea of a National University persisted despite the absence of express Constitutional authority for Congress to establish institutions of higher education, and the Tenth Amendment's reservation of rights to the states.²⁹ However, none of the proposals to establish a National University, brought forward from within the government, or arising from external sources, were successful.

In 1794, during Washington's Presidency (1789–1797), Vice President John Adams received a letter from Professor D'Ivernois at the University of Geneva. D'Ivernois inquired about the possibility of relocating the entire faculty of his institution to the United States to escape persecution and political turmoil. Washington declined the offer because many of the Geneva professors could not speak English, the acceptance of the offer might preclude the participation of professors from other countries in the establishment of a national university, he could not guarantee that Congress would approve necessary funding, and their political views might not be compatible with those of the United States.³⁰

The following year, Washington offered to contribute shares of stock in the Potomac River Company toward the establishment of a national university if Congress would adopt a plan.³¹ His offer did not stimulate any action toward his objective. Furthermore, the plans for a federal city

29. The United States Constitution, Bill of Rights, Amendment X: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people."

30. Castel, A. E. 1964. "The Founding Fathers and the Vision of a National University". *History of Education Quarterly* 4: 280-302. p. 284. Madsen, D. L. 1962. "The University of the United States: A Durable Dream". *The Journal of Higher Education* 33: 353-360. p. 355.

31. —. 1962. "The University of the United States: A Durable Dream". *The Journal of Higher Education* 33: 353-360. p. 355. The Potomac Company's stock was worthless by 1823, and it ceased operations in the late 1820s. Madsen cites *American State Papers*, edited by Walter Lowrie and Walter S. Franklin (Washington, D.C.: Gales and Seaton, 1834), Vol. II, No. 535, p. 1822.

that Pierre Charles L'Enfant had drawn in 1791 for President Washington did not include a university.³²

In 1796, on a map provided to him by the Commissioners of the District of Columbia,³³ Washington designated a site on the north bank of the Potomac River for a national university. Soon afterward, the Commissioners wrote a formal proposal for the erection of a national university at the proposed site, which was presented to Congress by Madison. The proposal was referred to a committee headed by Madison, who subsequently submitted a resolution to Congress that proposed the formation of a body of trustees to accept donations “towards the establishment of a University within the District of Columbia.” Opponents of a national university rejected this resolution for a number of reasons: they said that the government would eventually become responsible for the support such an institution, it would take money from those who would receive no benefit, it would be inconvenient for people who did not live nearby, and it would be out of reach of the “middling class.”³⁴ Representative William Lyman from Massachusetts said: “As far as I can understand, the land which is now to be

32. Castel, A. E. 1964. “The Founding Fathers and the Vision of a National University”. *History of Education Quarterly* 4: 280-302. p. 284. See also: Scott, P. 2000. “L'Enfant, Pierre Charles”: American National Biography Online. <http://www.anb.org.oca.ucsc.edu/articles/17/17-00497.html> (Accessed: January 28, 2009). Published by Oxford University Press. Washington presented L'Enfant's plan to Congress on December 13, 1791; but, L'Enfant was dismissed on February 27, 1792, and the first engraved map, published in the March 1792 issue of a Philadelphia journal, the *Universal Asylum and Columbian Magazine*, was credited to the surveyor Andrew Ellicott, who had worked with him.

33. See: The U.S. National Archives and Records Administration. 1791-1978. Records of the Government of the District of Columbia. Record 351.1 Administrative History, and Record 351.2 General Records 1838-1978. [Web version based on: Guide to Federal Records in the National Archives of the United States. Compiled by Robert B. Matchette et al. Washington, DC: National Archives and Records Administration, 1995.]: The National Archives. <http://www.archives.gov/research/guide-fed-records/groups/351.html> (Accessed: January 26, 2009). “During the period 1791-1801, government in DC was exercised by the Corporations of Georgetown (incorporated 1789) and Alexandria (incorporated 1779) within their respective jurisdictions; and by three Presidential appointees, known as Commissioners for the District of Columbia, with authority to lay out the future federal city, sell land to private buyers, and construct public buildings.” The Commissioners for the District of Columbia were abolished, and City of Washington, DC, incorporated, by an act of May 3, 1802 (2 Stat. 195).”

34. Castel, A. E. 1964. “The Founding Fathers and the Vision of a National University”. *History of Education Quarterly* 4: 280-302. p. 286-287. Castel cites and quotes passages from: *Annals of Congress*, 4th Cong., 2nd Sess. (1796-97), 1600-1601, 1694-1695, 1697-1703, 1704-1711.

appropriated for this University, is the property of the United States. Does not this look as though the United States are to patronize and support the establishment? ... For us to encourage this would be to do injury, instead of having a number of schools planted in various parts, they are now all to centre in one; and the people are to neglect all to support this one; as others would become weak.”³⁵ Edward Livingston, Representative from New York, said: “This land was for public use. The use of this land was to erect buildings on for the benefit of Congress; and if these Commissioners had power to appropriate it for building a National University on, they had the same power to give it or make use of it for any other purpose. Such institutions are not public, but private.”³⁶ Representative Livingstone and Speaker Jonathan Dayton of New Jersey both described the resolution as an “entering wedge” for the establishment of a national university.³⁷ Mr. John Nicholas, from Virginia, said: “Would they think of erecting a Seminary for a district of country ten miles square? Certainly not: it will be expected to be given to the use of the United States—to the support of a National University. It is deceiving the public to suppose or assert differently.”³⁸ Mr. Abraham B. Venable from Virginia said that he believed the proposal “to be connected with a National University, and that it was introduced

35. 1796d. Proceedings and Debates of the House of Representatives of the United States. Monday, December 26, 1796. “National University”. *Annals of Congress*. House of Representatives. 4th Congress, 2nd Session. Washington: Gales and Seaton, 1849, pg. 1699-1700. From Library of Congress, *A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875*. <http://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=006/llac006.db&recNum=37> (Accessed: June 7, 2009).

36. 1796c. Proceedings and Debates of the House of Representatives of the United States. Monday, December 26, 1796. “National University”. *Annals of Congress*. House of Representatives. 4th Congress, 2nd Session. Washington: Gales and Seaton, 1849, pg. 1701-1702. From Library of Congress, *A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875*. <http://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=006/llac006.db&recNum=37> (Accessed: June 7, 2009).

37. Castel, A. E. 1964. “The Founding Fathers and the Vision of a National University”. *History of Education Quarterly* 4: 280-302. p. 286. Castel cites: *Annals of Congress*, 4th Cong., 2nd Sess. (1796-97), 1700-1702.

38. 1796b. Proceedings and Debates of the House of Representatives of the United States. Monday, December 26, 1796. “National University”. *Annals of Congress*. House of Representatives. 4th Congress, 2nd Session. Washington: Gales and Seaton, 1849, pg. 1709-1710. From Library of Congress, *A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875*. <http://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=006/llac006.db&recNum=37> (Accessed: June 7, 2009).

in this shape because it was apprehended it would not pass if brought into the House without disguise.”³⁹ Those who supported the resolution said that its object was only to set up a body of trustees, not to establish a national university; however, they were unable to answer the opposition without abandoning their assertion that the proposal had no relationship to a national university. The House rejected the resolution and the subject was postponed.⁴⁰

During the administration of John Adams (1797-1801), and during Jefferson’s first term, no proposals to establish a national university were brought forward;⁴¹ however, during Jefferson’s second term, Joel Barlow published a pamphlet titled “Prospectus of a National Institution to be Established in the United States.”⁴² Barlow envisioned an institution located near the seat of the federal government that combined research and instruction. The membership of the institution was

39. 1796a. Proceedings and Debates of the House of Representatives of the United States. Monday, December 26, 1796. “National University”. *Annals of Congress*. House of Representatives. 4th Congress, 2nd Session. Washington: Gales and Seaton, 1849, pg. 1711-1712. From Library of Congress, A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774-1875. <http://memory.loc.gov/cgi-bin/ampage?collId=llac&fileName=006/llac006.db&recNum=37> (Accessed: June 7, 2009).

40. Castel, A. E. 1964. “The Founding Fathers and the Vision of a National University”. *History of Education Quarterly* 4: 280-302. p. 287. Castel cites *Annals of Congress*, 4th Cong., 2nd Sess. (1796-97), 1704, 1711.

41. See: *ibid.* Castel says that many people published books and pamphlets advocating a national university, including Nathaniel Chipman, Samuel Knox, Samuel H. Smith, Lafitte du Courteil, Noah Webster, and Du Pont de Nemours. Castel cites Hansen as his source of a survey of such writings: Hansen, A. O. 1926. *Liberalism and American Education in the Eighteenth Century*. New York: Originally published in 1926 by The Macmillan Company. Reprinted in 1965 by Octagon Books, Inc. Moroney questions Hansen’s choice of works that reflect early republican educational ideals, noting that he chose not to include the works of other important authors in his survey. See: Moroney, S. 1999. “Birth of a Canon: The Historiography of Early Republican Educational Thought”. *History of Education Quarterly* 39: 476-491.

42. See: Barlow, J. 1806. *Prospectus of a National Institution to be Established in the United States*. [Reproduced in Appendix C of “The Origin of the National Scientific and Educational Institutions of the United States,” by George Brown Goode, in “A Memorial of George Brown Goode, together with a selection of his papers on Museums and on the History of Science in America,” in the *Annual Report of the Board of Regents of the Smithsonian Institution*, showing the operations, expenditures, and condition of the institution for the year ending June 30, 1897. *Report of the U.S. National Museum*. Part II (Washington, D.C., Government Printing Office), 1901. Footnote 3 of Goode’s paper (p. 282 of the Memorial) says that the original prospectus was published anonymously and dated “Washington, 24th January, 1806,” and it was also published in *National Intelligencer*, Washington, 1806, August 1 and November 24.]

comprised of citizens of the United States, with honorary foreign members not exceeding fifty percent of domestic membership. These members would be “eminent in any of the liberal sciences, whether physical, moral, political, or economical; in literature, arts, agriculture; in mechanical, nautical, or geographical discoveries.” Barlow suggested an administrative structure linked directly to the government of the United States. He proposed that the Chancellor of this National Institution would be appointed by the President of the United States. The responsibilities of the Chancellor, who was also the president of the board of trustees and director of the Professorate, included presiding over meetings, conferring degrees, signing diplomas, and the execution of ordinances and resolutions. The first members of the board of trustees would be appointed by the President of the United States, thereafter, the board became a self-perpetuating body. Together, the Chancellor and the Board would manage the institution’s funds; appoint, organize, and remove members of the Professorate; establish universities, colleges, and schools; and, establish printing presses for academic publications. The Chancellor and Board also would have the power to establish laboratories, libraries, and experimental botanical and agricultural gardens. He also suggested that the nation’s military academies, mint, patent office, and geographical and mineralogical archives would be attached to the national university.⁴³

In March 1806, Barlow’s ideas were introduced to the Senate as *A Bill to Incorporate a National Academy*.⁴⁴ The Senate rejected the proposal,⁴⁵ but Barlow’s plan for a national university received support from Jefferson and his Prospectus was published in the August and November 1806 editions of the *National Intelligencer*.⁴⁶ In De-

43. *ibid.*

44. Madsen, D. L. 1962. “The University of the United States: A Durable Dream”. *The Journal of Higher Education* 33: 353-360. p. 356.

45. Note: The United States Military Academy at West Point was approved by Congress in 1802, four years prior to Barlow’s “Bill to Incorporate a National Academy.” Evidently, Congress did not see the constitutional conflict in the establishment of Federal military academies that it did with a National University.

46. Castel, A. E. 1964. “The Founding Fathers and the Vision of a National University”. *History of Education Quarterly* 4: 280-302. p. 290. Mel Laracey, Associate Professor of Political Science at University of Texas at San Antonio, writes: “Presidential newspapers like the *National Intelligencer* served as an important communications tool for many presidents

ember of that year, in his sixth annual message to Congress, Jefferson said that the nation's treasury surplus should be directed to "the great purposes of the public education, roads, rivers, canals, and such other objects of public improvement as it may be thought proper to add to the constitutional enumeration of federal powers." Jefferson's comments did not garner support for Barlow's plan for a national university. Castel says that Jefferson was the first proponent of a national university to assume that explicit Constitutional authority would be required for its establishment. In addition, Jefferson thought that Congress could not appropriate money to support public education without a Constitutional amendment:⁴⁷

"Education is here placed among the articles of public care, not that it would be proposed to take its ordinary branches out of the hands of private enterprise, which manages so much better all the concerns to which it is equal; but a public institution can alone supply those sciences which, though rarely called for, are yet necessary to complete the circle, all the parts of which contribute to the improvement of the country, and some of them to its preservation ... I suppose an amendment to the constitution, by consent of the States, necessary, because the objects now recommended are not among those enumerated in the constitution, and to which it permits the public moneys to be applied. The present consideration of a national establishment for education, particularly, is rendered proper by this circumstance also, that if Congress, approving the proposition, shall yet think it more eligible to found it on a donation of lands, they have it now in their power to endow it with those which will be among the earliest to produce the necessary income. This foundation would have the advantage of being independent on war, which may suspend other improvements by requiring for its own purposes the resources destined for them."⁴⁸

in the nineteenth century. That the *National Intelligencer*, established by Samuel H. Smith in Washington, D.C. in 1800 with the encouragement of then president-elect Thomas Jefferson, reflected Jefferson's views during his presidency was well known." Laracey, M. C. 2005. *Promoting Jeffersonian Democracy: Principles of Government from the First Presidential Newspaper, the National Intelligencer*. Prepared for presentation at the Annual Meeting of the American Political Science Association, Washington, D.C., September 1-4, 2005. Panel 23-11, The Presidency in Historical Perspective, September 3, 2005: http://www.allacademic.com//meta/p_mla_apa_research_citation/0/4/0/9/8/pages40980/p40980-1.php (Accessed: January 28, 2009). p. 2.

47. Castel, A. E. 1964. "The Founding Fathers and the Vision of a National University". *History of Education Quarterly* 4: 280-302. p. 290.

48. Jefferson, T. 1806. Thomas Jefferson : Sixth Annual Message to Congress, December 2, 1806: http://avalon.law.yale.edu/19th_century/jeffmes6.asp (Accessed: January 28,

Following Jefferson's administration (1801-1809), and prior to the Morrill Act of 1862, at least three other Presidents proposed the establishment of a National University: James Madison (1809-1817), James Monroe (1817-1825), and John Quincy Adams (1825-1829). Their proposals were rejected by Congress.⁴⁹ Proposals to establish a National University can be understood as efforts to extend the functions of the intellectual structure of the United States Government, which includes its scientific research agencies and libraries, to incorporate higher education programs designed specifically to serve the nation.

THE NATIONAL ACADEMY OF SCIENCES

In 1863, the year after the Morrill Act became law, President Lincoln signed legislation creating the National Academy of Sciences (hereafter, the NAS, or the Academy). During early planning discussions for the establishment of a "National Association under an act of Congress," Joseph Henry, a member of the Scientific Lazzaroni,⁵⁰ expressed his

2009). Source: *A Compilation of the Messages and Papers of the Presidents Prepared under the direction of the Joint Committee on printing of the House and Senate Pursuant to an Act of the Fifty-Second Congress of the United States* (New York : Bureau of National Literature, Inc., 1897).

49. For more background on each of these proposals, see: Castel, A. E. 1964. "The Founding Fathers and the Vision of a National University". *History of Education Quarterly* 4: 280-302. pp. 291-297. According to Castel, Presidents Grant (1869-1877), Hayes (1877-1881), McKinley (1897-1901), and Wilson (1913-1921) each proposed the establishment of a National University. These proposals came after the Morrill Act of 1862.

50. "Lazzaroni" is an Italian term given to the lowest societal classes in Naples that begged in the streets and looked for odd jobs. The term is associated with persons afflicted with loathsome diseases, particularly leprosy. See: *The Oxford English Dictionary*. 1989 2nd ed.-a. "lazzarone": OED Online. Oxford University Press. 9 Feb. 2009, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50130863/50130863spg1>.

— . 1989 2nd ed.-b. "lazar, n. and a.": OED Online. Oxford University Press. 9 Feb. 2009, <http://dictionary.oed.com.oca.ucsc.edu/cgi/entry/50130829>.

The Scientific Lazzaroni, a group of men worried that the progress of science was threatened by charlatanism and quackery, worked to centralize, advance, and efficiently organize scientific activity in educational institutions and the U.S. government with a goal to establish standards to ensure quality. This group of scientists, who adopted the name "Lazzaroni," included Alexander Dallas Bache, Joseph Henry, Benjamin Pierce, Louis Agassiz, James D. Dana, Charles Henry Davis, C.C. Felton, John F. Frazer, Benjamin Apthorp Gould, and Oliver Wolcott Gibbs. They influenced the development of at least three institutions; the American Association for the Advancement of Science, Harvard University's Lawrence Scientific School, and the National Academy of Sciences. For short biographies of each of the Lazzaroni, see: Miller, L. B., Voss, F., Hussey, J. M. 1972. *The Lazzaroni: Science and Scientists in Mid-Nineteenth-Century America*. Washington, D.C.: Published for

concerns about the practicality of founding such an institution to his colleagues Alexander Dallas Bache and Charles Henry Davis. Henry “did not think it possible that such an act could be passed with free discussion in the House—that it would be opposed as something at variance with our democratic institutions”; that “if adopted it would be a source of continual jealousy and bad feeling—an object of attack on the part of those who were left out”; and that “there would be great danger of its being perverted to the advancement of personal interest or to the support of the partizan [sic] politics.”⁵¹ On March 3, 1863, the last day of the lame-duck thirty-seventh Congress, legislation to incorporate the Academy was passed by Congress, without discussion or a recorded vote, and signed by President Lincoln.⁵²

The Academy was actually brought into existence a month prior to the passage of its enabling legislation in the form of a commission assembled by the Secretary of the Navy to provide technical scientific advice to the Navy in relation to the Civil War. This early commission reviewed design proposals for torpedoes, warships, and other military equipment. After its incorporation, the Academy’s first three requests from the government were for advice on weights, measures, and coinage; for a means to protect iron ships from damage by salt water; and for a method to correct the magnetic deviation of the compasses used on iron ships.⁵³ The federal government’s reliance on the Academy to

the National Portrait Gallery, Smithsonian Institution, by the Smithsonian Institution Press.

51. See Dupree, A. H. 1957. *Science in the Federal Government: A History of Policies and Activities to 1940*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. Chapter VII, “The Civil War,” page 137, endnote 67: “The most detailed version of his reasons, here quoted, [Joseph] Henry gave in a long letter to Louis Agassiz, August 13, 1864, Pierce Papers, Harvard University Archives, which outlined the whole history of his connection with the National Academy. Several shorter accounts appear in letters written in the spring of 1863.” In 1846, Joseph Henry (1797-1878), an American physicist, was named the first Secretary of the Smithsonian Institution. In 1868, he was elected President of the National Academy of Sciences. He held both positions until his death. Henry invented the first electric motor. Rothenberg, M. 1997-2007. *Joseph Henry: First Smithsonian Secretary*. Smithsonian Institution Archives. <http://siarchives.si.edu/history/jhp/joseph02.htm> (Accessed: June 7, 2009). Anderson Hunter Dupree (1921-) is Professor Emeritus of History at Brown University.

52. Dupree, A. H. 1957. *Science in the Federal Government: A History of Policies and Activities to 1940*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. p. 140.

53. *Ibid.* pp. 144-145.

provide advice on military matters increased during World War I.⁵⁴ During World War II, the Academy was involved in research related to the development of the atomic bomb.⁵⁵

The organization's Act of Incorporation states that "the Academy shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art..."⁵⁶ Frederick W. True claims that the Academy was the

54. True, F. W., ed. 1913. *A History of the First Half-Century of the National Academy of Sciences: 1863 - 1913* (Washington, D.C.) Baltimore, MD: The Lord Baltimore Press. p. 1. See also: "The NAS Building, A Temple of Science" at http://www.nasonline.org/site/PageServer?pagename=ABOUT_building (Accessed: September 22, 2008). For additional background on the origins of the National Academy of Sciences, see Dupree, A. H. 1957. *Science in the Federal Government: A History of Policies and Activities to 1940*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. pp. 135-148.

55. See: National Academy of Sciences. 1940-1945. The National Academies Archives, Central Policy Files, 1940-1945: Files List Part 1: <http://www7.nationalacademies.org/archives/collections.html>. <http://www7.nationalacademies.org/archives/cf1940-1945pt1.html> (Accessed: June 7, 2009). The following files are listed (but not accessible online) at the NAS archives site: "Organization: NAS. Committee on Atomic Fission. Appointments: Members: 1941, Meetings: Minutes: 1941. Some Remarks on Production of Energy by Chain Reaction in Uranium: Fermi I: 1941. General: 1942; 1941." See: Rhodes, R. 1986. *The Making of the Atomic Bomb*. New York: Simon & Schuster. p. 386; Rhodes quotes from the third NAS atomic bomb report (November 6, 1941): "The special objective of the project report is to consider the possibilities of an explosive fission reaction with U235." "A fission bomb of superlative destructive power will result from bringing together a sufficient mass of element U235." p. 386: "... the American report attempted to compensate for its doubts about the efficacy of an intense energy release from a small amount of matter by emphasizing that the destructive effects on life of a bomb's radioactivity 'may be as important as those of the explosion itself.'" Rhodes cites "Report to the President of the National Academy of Sciences by the Academy Committee on Uranium, Nov. 6, 1941": Vannevar Bush-James B. Conant files, f. 18. Office of Scientific Research and Development, S-1 (Record Group 227), National Archives. See also: Norris, R. S. 2002. *Racing for the Bomb: General Leslie R. Groves, the Manhattan Project's indispensable man*. South Royalton, Vermont: Steerforth Press : [Berkeley, CA]: Distributed by Publishers Group West]. p. 167: The third NAS report recommended "urgent development" of the program. The report concluded: "The possibility must be seriously considered that within a few years the use of bombs such as described here, or something similar using uranium fission, may determine military superiority." Norris cites: Conant, James B. "A History of the Development of an Atomic Bomb," Spring 1943, Bush-Conant Correspondence, 24, 18. S-1 Files, Office of Scientific Research and Development (OSRD), Box 3, Folders 1 and 4, Record Group 277, National Archives and Records Administration, College Park, MD.

56. Senate and House of Representatives of the United States of America. 1863. An Act to Incorporate the National Academy of Sciences: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_incorporation (Accessed: September 17, 2008), True, F. W., ed. 1913. *A History of the First Half-Century of the National Academy of Sciences: 1863 - 1913* (Washington, D.C.) Baltimore, MD: The Lord Baltimore Press., United States Congress. 1863. Constitution of the National Academy of Sciences: The National Academy of Sciences. <http://www.nasonline.org/site/>

only scientific research organization that provided advice to the federal government of the United States at that time, and also says that similar governmental organizations in existence in 1863, in the midst of the Civil War, were the Coast Survey, the Naval Observatory, and the agricultural branches of the Patent Office.⁵⁷ True does not mention that the United States Department of Agriculture (USDA) had been established on May 15, 1862, nearly a year before the incorporation of the NAS.

The National Academy of Sciences, a privately-controlled, self-perpetuating, non-profit organization that provides advice to the federal government, received its charter from Congress before the web of public land-grant universities that were established under the Morrill Act had evolved into the prominent research institutions that they are today. In the twenty-first century, the NAS draws many of the experts it needs to respond to government research requests from the intellectual structure of these institutions.

A year following its incorporation, the Academy's first president, in a report to Congress, described the NAS as the relation of the scientific community to the nation's government in terms that might also describe the present relation of the public land-grant universities to the federal government:

"The want of an institution by which the scientific strength of the country may be brought, from time to time, to the aid of the government in guiding action by the knowledge of scientific principles and experiments, has long been felt by the patriotic men of the United States."⁵⁸

Today, the Academy of Sciences is one of four organizations known collectively as the National Academies. The other three organizations, established under the authority of the NAS charter, are the National Research Council (est. 1916), the National Academy of Engineering (est. 1964), and the Institute of Medicine (est. 1970). The National Research Council's mission is "to improve government decision making

PageServer?pagename=ABOUT_constitution. Accessed: September 15, 2008.

57. True, F. W., ed. 1913. *A History of the First Half-Century of the National Academy of Sciences: 1863 - 1913* (Washington, D.C.) Baltimore, MD: The Lord Baltimore Press.

58. Professor Alexander D. Bache, first President of the Academy of Sciences: the first report of the National Academy of Sciences to Congress, March 28, 1864. *Ibid.* p. 13.

and public policy, increase public education and understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, technology, and health.”⁵⁹

The Academy of Sciences is comprised of three structures: administrative, intellectual, and physical. The hierarchical administrative structure of the NAS is very similar to that of a privately-controlled institution of higher education that is governed by a self-perpetuating board of trustees. The NAS governing Council includes a president, vice-president, twelve elected councilors, and other officers. The Council sits over many NAS offices and committees, including the Finance Committee; the Committee on Science, Engineering and Public Policy; the Government-University-Industry Research Roundtable; the Office of the Foreign Secretary; the Proceedings of the National Academy of Sciences; and the National Research Council Governing Board.⁶⁰

Provisions in its corporate charter give the Academy of Sciences the “power to make its own organization, including its constitution, by-laws, and rules and regulations; to fill all vacancies created by death, resignation, or otherwise; to provide for the election of foreign and domestic members ... and all other matters needful or usual in such institution, and to report the same to Congress.”⁶¹ The charter’s requirement to submit reports to Congress created a connection between the administrative and intellectual structures of the NAS, a private organization, and the federal government. The charter’s provision to allow Congress to observe, but not disrupt or influence the functions of the NAS, was important to the development of academic freedom. The annual reports to Congress include a summary of the organization’s research activities.⁶² The introduction to the 2007 report states:

59. See: The National Research Council. 2009. *Welcome to the National Research Council*: NRC. Washington, D.C. <http://sites.nationalacademies.org/nrc/index.htm> (Accessed: February 9, 2009).

60. See: National Academy of Sciences. 2009. Organizational Chart: National Academy of Sciences. pdf version of chart at: <http://www.nasonline.org/site/DocServer/Orgchart.pdf?docID=17181> (accessed: September 29, 2008).

61. Senate and House of Representatives of the United States of America. 1863. *An Act to Incorporate the National Academy of Sciences*: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_incorporation (Accessed: September 17, 2008).

62. See: National Academy of Sciences. 2008b. *2007 Report to Congress*. Washington,

"In 2007 our Academies pursued a broad agenda focused on answering important and diverse questions in science, engineering, and health care posed by Congress, the executive branch, and state and local governments. As highlighted in this Report to Congress, nearly 200 expert committees convened by the National Research Council and Institute of Medicine contributed to a long tradition of providing authoritative and unbiased science policy advice to the nation." ⁶³

Another connection between the administrative structure of this private organization and that of the federal government is the formal liaison between the National Academies and Congress: the Office of Congressional and Government Affairs (OCGA). One function of the liaison is to coordinate congressional briefings on the conclusions and recommendations of NAS reports. ⁶⁴ The NAS, a privately-controlled organization chartered as science advisor to branches of the federal government, appears to hold exclusive control over a direct conduit between university faculty researchers and the federal government.

The leading component of Academy's intellectual structure is its body of members. Another part of the organization's intellectual structure is the National Academies Press, which was created by the Academy to publish and distribute its reports and books. ⁶⁵

The Academy's first fifty members were men associated primarily with the U.S. Military, and with privately-controlled colleges and universities, including Yale, Harvard, Columbia, Princeton, Brown, Bowdoin, and the University of Pennsylvania. One member was from publicly-controlled

D.C.: Prepared by the Office of News and Public Information. http://www.nationalacademies.org/annualreport/Report_to_Congress_2007.pdf (Accessed: October 1, 2008). See also: <http://www.nationalacademies.org/annualreport/> (Accessed: October 1, 2008).

63. *ibid.* *A Message From the Presidents of the National Academy of Sciences*, National Academy of Engineering, and Institute of Medicine. 2007. p. 1. See also: *A Message From the Presidents of the National Academy of Sciences*, National Academy of Engineering, and Institute of Medicine. 2007. <http://www.nationalacademies.org/annualreport/prez07.html> (Accessed: October 1, 2008)

64. See: The National Academies. 2008a. "Briefings to Congress": The Office of Congressional and Government Affairs, The National Academies. Washington, D.C. <http://www7.nationalacademies.org/ocga/Briefings.asp> (Accessed: September 22, 2008). "Briefings to Congress are events organized through the Office of Congressional and Government Affairs to inform members of Congress and/or their staff on the conclusions and recommendations of reports of the National Academies."

65. See: The National Academies Press at <http://www.nap.edu/>. Accessed: September 27, 2008.

University of Virginia.⁶⁶ These original members included professors of mathematics, chemistry, geology, astronomy, natural history, meteorology, paleontology, and other scientific disciplines. A few were also university presidents, including F. A. P. Barnard, President of Columbia College; Alexis Caswell, President of Brown University; and William Barton Rogers, the first president of the Massachusetts Institute of Technology. James Dwight Dana, Professor of Natural History at Yale College, was the president of the American Association for the Advancement of Science (AAAS) prior to his appointment to the National Academy of Sciences. The senior Benjamin Silliman had published the “Yale Report of 1828” in the journal he established in 1819, the *American Journal of Science*. Swiss scientist Louis Agassiz (1807-1873) was a foreign associate of the NAS, and one of the original “incorporators” of the organization.⁶⁷ In 2008, NAS membership includes independent business people in addition to university professors.

Prospective members must be nominated by an existing member, and are elected through a complicated ballot procedure. Any member may request that a name on the final ballot be removed for discussion and a separate vote. An individual cannot apply for membership in the Academy.⁶⁸

The intellectual structure of the NAS is organized into classes and sections that are similar to the academic divisions of a university. These intellectual structure’s classes and sections are simultaneously a functional part of the organization’s administrative structure during the complicated member nomination and election process because each section has its own election procedures.⁶⁹ In 1863, at its forma-

66. See: True, F. W., ed. 1913. *A History of the First Half-Century of the National Academy of Sciences: 1863 - 1913* (Washington, D.C.) Baltimore, MD: The Lord Baltimore Press. Chapters 1 and 3.

67. Ibid. See Chapter III, “Biographical Sketches of the Incorporators,” pp. 103-200. Additional memoirs are available on the NAS website at: Biographical Memoirs. http://www.nasonline.org/site/PageServer?pagename=MEMOIRS_A (Accessed: June 23, 2009).

68. National Academy of Sciences. 2008a. *National Academy of Sciences: Bylaws*: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_bylaws (Accessed: September 16, 2008).
 Alberts, B., Fulton, K. R. 2005. “Election to the National Academy of Sciences: Pathways to Membership”. *Proceedings of the National Academy of Sciences* 102: 7405-7406 [<http://www.pnas.org/cgi/doi/7410.1073/pnas.0503457102>].

69. See: —. 2005. “Election to the National Academy of Sciences: Pathways to Membership”. *Proceedings of the National Academy of Sciences* 102: 7405-7406 [<http://www.pnas.org/cgi/doi/7410.1073/pnas.0503457102>].

tion, the NAS was divided into two classes: Class A – Mathematics and Physics, and Class B – Natural History. Each of these two classes was further divided into five sections. The social sciences were represented by “Section 5, Ethnology,” located in “Class B.” When the classes and sections were originally organized, there were no members enrolled in the social science section.

The number of NAS classes and divisions has increased proportionate with the growth of knowledge and remains closely related to the intellectual structure of universities. In 2008, these classes are: I) Physical and Mathematical Sciences; II) Biological Sciences; III) Engineering and Applied Sciences; IV) Biomedical Sciences; V) Behavioral and Social Sciences; and VI) Applied Biological, Agricultural, and Environmental Sciences. Each of these classes is further divided into Sections. For example, Class V is divided into four Sections: Anthropology, Psychology, Social and Political Sciences, and Economic Sciences.

The Act of Incorporation states that the “Academy shall receive no compensation whatever for any services to the Government of the United States”; however, the Academy’s bylaws as amended allow the Academy to compensate individual members, such as its president, if so desired.⁷⁰ In his report as first President of the Academy, Alexander D. Bache ⁷¹ defined knowledge, shared altruistically, as the foundation of the nation’s wealth:

“It will be seen by the spirit and words of our laws, enacted by the authority of the charter, that the members of the National Academy put their time and talents at the disposal of the country in no small or stinted mea-

www.pnas.org/cgi/doi/7410.1073/pnas.0503457102].

70. Senate and House of Representatives of the United States of America. 1863. *An Act to Incorporate the National Academy of Sciences*: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_incorporation (Accessed: September 17, 2008)., National Academy of Sciences. 2008a. *National Academy of Sciences: Bylaws*: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_bylaws (Accessed: September 16, 2008). The Academy’s Bylaws state: “The Council, after considering the recommendations of a committee of its members, shall have the power to fix the compensation and allowances of the president of the Academy and of other officers for whom the Council may find it desirable to provide compensations and allowances. Members of this committee shall be selected from those members of the Council who are not in receipt of any compensation from the Academy.”

71. Bache held the following positions: Superintendent of the Coast Survey, Professor at the U.S. Military Academy at West Point, and in 1828, Professor of Natural Philosophy and Chemistry at the University of Pennsylvania.

sure, freely, fully, by the binding authority of an oath; asking no compensation therefor but the consciousness of contributing to judicious action by the government on matters of science. The more wealth of such men can be drawn out from the treasury of their knowledge, the richer will the nation be; and I for one do not fear that even the suggestions which may be made to Congress on subjects in which that knowledge may be most profitably employed for our country and times, will be subject to any supposed taint of self-seeking as to power or influence. Subject to the taint of supposed desire for remuneration it cannot be, by our charter, and all our laws look away from such a center.”⁷²

In his report to the Academy’s membership at their 1994 annual meeting, National Academy of Sciences President Bruce Alberts reemphasized the importance of generosity to the scientific enterprise. He presented the principle of generosity as a social contract and tradition among scientists, which he described as “idealistic people with broad interests in society and a willingness to provide public service without compensation.”⁷³

No prescribed cooperative relationship exists between the NAS and the intellectual and administrative structures of public universities. NAS members that are University professors receive financial compensation from their academic institution; however, membership in the Academy requires additional work, beyond that demanded by concurrent contractual engagements, with no additional compensation.

Today, membership in the NAS is prestigious and influential. It can trigger federal funding for university research programs and assist pri-

72. True, F. W., ed. 1913. *A History of the First Half-Century of the National Academy of Sciences: 1863 – 1913* (Washington, D.C.) Baltimore, MD: The Lord Baltimore Press., pp. 202-203. True cites Annals of the National Academy of Science, 1863-1866, pp. 49-50. President Bache’s comments are quoted also in “National Academy of Sciences: Minutes of the Meeting for Organization, April 1863,” by Edwin B. Wilson. *Proceedings of the National Academy of Sciences*. Vol. 36, 1950, pp. 277-292. The quote appears on p. 278. For additional information on NAS history, see the NAS archives: <http://www7.nationalacademies.org/archives/index.html>. Accessed: September 28, 2008.

73. Alberts, B. 1994. *The Responsibilities of Scientists in a Changing World*. Presented at the 131st Annual Meeting of the National Academy of Sciences, April 25, 1994. Washington, D.C.: National Academy of Sciences. <http://www.nasonline.org/site/DocServer/1994address.pdf?docID=901>. (Accessed: September 17, 2008). Bruce Alberts, president emeritus of the U.S. National Academy of Sciences and chair of the National Research Council (1993-2005), and professor of biochemistry and biophysics at the University of California, San Francisco was named new editor-in-chief of Science by the Board of Directors of the American Association for the Advancement of Science (AAAS) to serve as editor-in-chief of its journal Science beginning March 1, 2008.

vate sector companies and research institutes in their efforts to secure financial support. It is likely that the influence and prestige attached to NAS membership could provide an incentive for the nomination and election of new members from an existing member's home institution, thereby increasing the overall reputation of their institution and improving the ability of their university or company to secure funding. NAS members who are the principals of independent businesses and institutes may see their membership as a crucial influential key to obtaining support.

The election of new members in the organization spurs universities to issue press releases to announce the news to the world. For example, in 2008, Stanford University announced 5 new Academy members, raising their total membership to 131, and Harvard University announced eight new Academy members. The University of California, Berkeley announced three new members, for a total of 132 Academy members. Each of these announcements emphasizes the immense prestige and honor associated with Academy membership, but none mentions the uncompensated generosity required of the elected individuals. In September 2008, the NAS had 2041 active members and 397 foreign associates.⁷⁴ By February 2012, the number of active NAS members and foreign associates had increased to about 2200 and 400, respectively. Approximately 200 NAS members have received Nobel prizes.⁷⁵

Expenses related to carrying out NAS research projects initiated by Congress are funded by government appropriations. In addition, the National Academies also rely on private funding from individuals, companies, and foundations to support projects that were not requested or funded by the government.⁷⁶

74. The National Academies. 2008b. News release: *72 New Members Chosen by Academy*. Washington, D.C.: The National Academies Office of News and Public Information. April 29, 2008. <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=04292008>. Accessed: September 26, 2008. See also: National Academy: Members, http://www.nasonline.org/site/PageServer?pagename=MEMBERS_Main (Accessed: April 7, 2010). American citizenship is a requirement for members of the NAS.

75. National Academy of Sciences. 2012. About NAS: Membership. (February 2, 2012 <http://www.nasonline.org/about-nas/membership/>)

76. See: Senate and House of Representatives of the United States of America. 1863.

While the Morrill Act explicitly required each participating state to endow at least one college where courses in agriculture and the mechanic arts would be taught, the membership of the Academy of Sciences at its incorporation clearly indicates that many other branches of scientific knowledge also were important to the policy decisions of the federal government and the well-being of the nation. This concern and drive for practical scientific advice and education reaches beyond nineteenth-century America. In the late twentieth century, the Center for Education (in the Division of Behavioral and Social Sciences and Education of the National Academy of Sciences) published the *National Science Education Standards* to help the nation achieve scientific literacy. A statement in the book's introduction reflects the call for practical education for all Americans that was expressed in Morrill Act of 1862:

“Scientific literacy enables people to use scientific principles and processes in making personal decisions and to participate in discussions of scientific issues that affect society. A sound grounding in science strengthens many of the skills that people use every day, like solving problems creatively, thinking critically, working cooperatively in teams, using technology effectively, and valuing life-long learning. And the economic productivity of our society is tightly linked to the scientific and technological skills of our work force.”⁷⁷

The National Academies building in Washington, D.C. was dedicated in 1924. The building was expanded in later decades. It includes a library, auditorium, lecture rooms, conference rooms and offices. Many Academy staff members' offices are located in other areas of the city.⁷⁸

Many private scientific organizations in North America were founded prior to the NAS. It is worth comparing the structures of some of these other private scientific organizations with that of the NAS. Gei-

An Act to Incorporate the National Academy of Sciences: National Academy of Sciences. http://www.nasonline.org/site/PageServer?pagename=ABOUT_incorporation (Accessed: September 17, 2008). See also: Philanthropy at the National Academies, <http://www7.nationalacademies.org/giving/> (Accessed: September 22, 2008).

77. National Committee on Science Education Standards and Assessment, National Research Council. 1996. *National Science Education Standards*. Washington, D.C.: The National Academies Press. p. ix.

78. See: The National Academies. 2009. “The NAS Building ... A Temple of Science”: The National Academy of Sciences. *About the NAS*. http://www.nasonline.org/site/PageServer?pagename=ABOUT_building (Accessed: February 9, 2009).

ger writes that these professional disciplinary organizations brought scholars into more regular contact, advanced individuals to positions of leadership, and provided a means for evaluating scholarship.⁷⁹ The administrative and intellectual structures of these other privately-controlled scientific organizations resemble those of the NAS, but their stated original missions are different. Like the NAS, these organizations are chartered as self-governing corporations; but, unlike the NAS, their administrative structures are not linked directly to the United States government. The administrative structure of the NAS is unique among those of learned societies in the United States: it links a privately-governed corporation to the Federal government.

THE AMERICAN PHILOSOPHICAL SOCIETY

The American Philosophical Society (APS) was founded in 1743 by Benjamin Franklin, about 120 years prior to the Morrill Act and the establishment of the NAS. The mission of the APS was to promote useful knowledge and “all philosophical Experiments that let Light into the Nature of Things, tend to increase the Power of Man over Matter, and multiply the Conveniencies or Pleasures of Life.” The Society hoped to secure economic independence for the settlers of North America through improved methods of agriculture, manufacturing, and transportation. Its early membership included George Washington, John Adams, Thomas Jefferson, Alexander Hamilton, Thomas Paine, Benjamin Rush, James Madison, and John Marshall.⁸⁰ Benjamin Franklin’s proposal for the establishment of the American Philosophical Society, titled “A Proposal for Promoting Useful Knowledge among the British Plantations in America,” says that the Society will bring widely dis-

79. Geiger, R. L. 1986. *To Advance Knowledge: The Growth of American Research Universities, 1900-1940*. New York and Oxford: Oxford University Press. p. 22. See also “Table 1. Chronology of Principle Disciplinary Associations and Publications,” pp. 23-24. Geiger’s table lists private scholarly organizations and publications established in the United States from 1842 through 1905.

80. See: American Philosophical Society. 2008a. *About the APS*: <http://www.amphilsoc.org/about/> (Accessed: November 22, 2008). —. 2008b. *Archives, American Philosophical Society (Background Notes to Archives)*: <http://www.amphilsoc.org/library/mole/a/APSarchives.htm#boxfolder1>, <http://www.amphilsoc.org/library/mole/a/APSarchives.htm#boxfolder2> (Accessed: November 22, 2008). —. 2008c. *Mission Statement*: <http://www.amphilsoc.org/about/mission.htm> (Accessed: November 22, 2008).

persed scientists together to share their knowledge by monthly meetings and the distribution of printed communications to all members. Franklin suggests in his proposal that “at the End of every Year, Collections be made and printed, of such Experiments, Discoveries, Improvements, &c. as may be thought of publick Advantage: And that every member have a Copy sent him.”⁸¹ A similar system of collecting, preserving, and sharing knowledge generated at the dispersed campuses of the state land-grant research institutions is an important part of the Morrill Act of 1862.

In 1795, during President Washington’s administration, the American Philosophical Society announced a competition for “An essay on a system of liberal education & literary instruction, adapted to the genius of the government, & best calculated to promote the general welfare of the United States: — Comprehending also, a plan for instituting & conducting public schools in this country on principles of the most extensive utility.”⁸² In 1797, Samuel Harrison Smith⁸³ and Samuel Knox⁸⁴ shared the Soci-

81. Franklin, B. 1743. *A Proposal for Promoting Useful Knowledge Among the British Plantations in America*. Early American Imprints, Series I: Evans, no. 5190 (filmed) [Franklin, Benjamin: 1706-1790] Philadelphia, 1743. Broadside: Library of Congress.

82. 1885. “Part III. Early Proceedings of the American Philosophical Society for the Promotion of Useful Knowledge, Compiled by One of the Secretaries, from the Manuscript Minutes of Its Meetings from 1744-1838”. *Proceedings of the American Philosophical Society* 22: 227-235. p. 229, meeting notes from March 6, 1795.

83. See: McKerns, J. P. 2000. “Smith, Samuel Harrison”: <http://www.anb.org.oca.ucsc.edu/articles/16/16-01534.html>; *American National Biography Online*. Oxford University Press. (Access Date: Sun Feb 01 2009). In 1797, Thomas Jefferson was president of the American Philosophical Society. The essay submitted by Samuel Harrison Smith (1772-1845) was later published as “Remarks on education: illustrating the close connection between virtue and wisdom. : To which is annexed, a system of liberal education. Which, having received the premium awarded by the American Philosophical Society, December 15th, 1797, is now published by their order. / By Samuel Harrison Smith, A.M. member of the Am. Phil. Society. (1798).” In 1800, at the invitation of Jefferson, Smith, a newspaper publisher, moved the *Universal Gazette* from Philadelphia to Washington, D.C., where it was renamed *the National Intelligencer and Washington Advertiser*, and became the organ of the Jefferson administration.

84. See: Smith, W. 2000. “Knox, Samuel”: *American National Biography Online*. Published by Oxford University Press. <http://www.anb.org/articles/09/09-00417.html> (Accessed: February 2, 2009). Samuel Knox (1756-1832) was a Presbyterian minister and educator. In 1799, Knox had his essay printed in Baltimore as “An Essay on the Best System of Liberal Education, Adapted to the Genius of the Government of the United States. Comprehending also, an Uniform General Plan for Instituting and Conducting Public Schools, in This Country, on Principles of the Most Extensive Utility. To Which Is Prefixed, an Address to the Legislature of Maryland on That Subject.”

ety's one hundred dollar prize for the winning essay. Benjamin Justice, Assistant Professor of Education at Rutgers, says that the winning essays have served to tell us what eighteenth-century intellectuals thought about the role of education in the early republic. The members of the APS were searching for practical ideas for a system of education that were equivalent to the recently designed government of the United States. The Society didn't really find what it was looking for in the seven essays that were received. It said that the essays were not "so well adapted to the present state of Society in this Country." Justice says that this statement suggests that the plans presented in the essays were considered infeasible.⁸⁵

In his essay, Knox envisioned a National University at the head of a national system of education that included primary schools, county academies, and state colleges. All of these institutions would operate under a "uniform plan of education" overseen by a Board of Education—the "Presidents of literary instruction and Members of the board of national education." This Board would include one or two members from each state.⁸⁶

Knox contemplated a National University located "contiguous to the seat of government" that would "finish or consummate the whole literary course" offered at the state colleges. Aspects of his plan for the National University's physical structure reemerge later in Jefferson's plans for the University of Virginia.⁸⁷ Knox said, "the University build-

85. Justice, B. 2008. "The Great Contest": The American Philosophical Society Education Prize of 1795 and the Problem of American Education. *American Journal of Education* 114: 191-213. Justice acknowledges Moroney's observation that the winning essays probably did not represent typical eighteenth-century ideas about education. See: Moroney, S. 1999. "Birth of a Canon: The Historiography of Early Republican Educational Thought". *History of Education Quarterly* 39: 476-491.

86. Samuel Knox, "An Essay on the Best System of Liberal Education, Adapted to the Genius of the Government of the United States. Comprehending also, an Uniform General Plan for Instituting and Conducting Public Schools, in This Country, on Principles of the Most Extensive Utility. To Which Is Prefixed, an Address to the Legislature of Maryland on That Subject (1799)." Reproduced in: Rudolph, F., ed. 1965. *Essays on Education in the Early Republic*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. See especially pp. 319-320.

87. See: The Thomas Jefferson Foundation, I. 2008. *Thomas Jefferson Encyclopedia*. "American Philosophical Society": http://wiki.monticello.org/mediawiki/index.php/American_Philosophical_Society. (Accessed: February 3, 2009). Thomas Jefferson was elected to the American Philosophical Society in 1780 and served until he resigned in

ings, in magnitude and style of architecture, ought to be suitable in every respect to the important purposes for which they were designed, and also to the character and dignity of the nation.” The buildings would include housing for the President and Vice President of the University; an assembly hall for the faculty; a public hall to accommodate “any respectable assemblage of spectators or audience that might occasionally be introduced”; a public library, museum, and bookshop; a classroom for each professor that adjoins their private apartments, with gardens in the rear of the building; lodging for students; a steward’s house with kitchens and dining rooms; and a botanical garden with a house for the gardener. Knox also described a “cupola or dome fit for an Observatory, and sufficiently large to admit of an Astronomical apparatus.”⁸⁸

The administrative structure of Knox’s proposed National University includes a Principal and Vice Principal or chancellor. The faculty, none of whom would be practicing members of the clergy, were to be an incorporated body with authority to enact laws and regulations for the university’s governance, answerable to the national Board of Education. Knox divides the intellectual structure into the following professorships: classical learning or belles lettres; Latin and Roman antiquities; Greek and Grecian antiquities; Hebrew and Oriental Languages; rhetoric, logic and moral philosophy; natural philosophy; mathematics; astronomy; history and chronology; law and principles of government; elocution and oratory; and, ornamental arts. In addition, the national university would have a medical school.

1815. He was installed as President of the APS on March 3, 1797, and held that chair for the following eighteen years. See also: Rudolph, F., ed. 1965. *Essays on Education in the Early Republic*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. Rudolph sees the influence of Knox on Jefferson: “...this essay probably influenced Thomas Jefferson’s planning of the University of Virginia.” p. 271.

88. See: Knox, S. 1799. *An essay on the best system of liberal education, adapted to the genius of the government of the United States. Comprehending also, an uniform, general plan for instituting and conducting public schools, in this country, on principles of the most extensive utility. To which is prefixed, an address to the legislature of Maryland on that subject. By the Rev. Samuel Knox, M.A. president of the Frederick Academy. [One line from Horace]*: Baltimore – Printed by Warner & Hanna, Harrison-Street., –1799. Provider: NewsBank/Readex, Database: Early American Imprints, Series I: Evans. Record Number: OF30193505AF69F0. A description of Knox’s National University is found on pp. 147-165: “Section Eleventh. On the National University.”

Despite the suggested prohibition on members of the clergy serving as professors, Knox said that religious services by Protestant chaplains chosen by the faculty should be held in the university's Public Hall, and that the faculty, seated together in a special pew provided for them, must solemnly attend those services.⁸⁹

Samuel Harrison Smith's essay, "Remarks on Education," proposed a system of national education composed of primary schools, colleges, and a National University. Boys from age 10 to 18 would be placed in the second class of the primary school where they would receive instruction in arithmetic; the English language and composition; general history, and a history of the United States that would include studying the Constitution and law. In addition, a "practically illustrated" course in the laws of nature would include the study of agriculture and mechanics. Smith said that "the cultivation of natural philosophy, particularly so far as it relates to agriculture and manufactures, has been heretofore almost entirely neglected."⁹⁰

The students admitted to the colleges would be drawn from this second class of primary school students and supported at public expense. Students from the colleges would be promoted to the University where "the highest branches of science and literature shall be taught."⁹¹

The professors at the university would appoint the college professors, who would in turn appoint instructors for the primary schools. Smith also recommended the formation of a board of literature and science that would be authorized to establish a system of national education, govern the university and appoint its professors, and function as a textbook selection committee. In addition, this board would review literary and scientific papers submitted by the public and recom-

89. *Ibid.* pp.162-163.

90. Smith, S. H. 1798. "Remarks on Education: Illustrating the Close Connection Between Virtue and Wisdom. To Which Is Annexed a System of Liberal Education. Which, Having Received the Premium Awarded by the American Philosophical Society, December 15th, 1797, Is Now Published by Their Order" [Samuel Harrison Smith's essay was first published in 1798 by John Ormrod, Philadelphia]. Pages 167-223 in Rudolph F., ed. *Essays on Education in the Early Republic*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1965. p. 195.

91. *Ibid.* p. 212.

mend them for publication. It would also establish libraries.⁹²

THE AMERICAN ACADEMY OF ARTS AND SCIENCES

The American Academy of Arts and Sciences received its corporate charter from the Massachusetts legislature in 1780. In contrast to the military engineering origins of the NAS, the mission of the American Academy of Arts and Sciences was to support the advancement of knowledge related to agriculture, manufacturing, and commerce for the benefit of society:

“As the Arts and Sciences are the Foundation and Support of Agriculture, Manufactures, and Commerce; as they are necessary to the Wealth, Peace Independence and Happiness of a People; as they essentially promote the Honor and Dignity of the Government which Patronizes them; and as they are most effectually cultivated and diffused through a State, by the forming and incorporating of Men of Genius and Learning into Public Societies; For these beneficial Purposes; be it therefore enacted by the Council and House of Representatives in General Court assembled, and by the Authority of the same, that the Honorable Samuel Adams, Esq.; Hon. John Adams, Esq.; ... hereby are formed into, constituted and made a Body Politic and Corporate by the Name of the American Academy of Arts and Sciences ... And be it further enacted by the Authority aforesaid, That the End and Design of the Institution of the said Academy is, to promote and encourage the Knowledge of the Antiquities of America, and of the Natural History of the Country, and to determine the Uses to which the various Natural Productions of the Country may be applied; to promote and encourage Medical Discoveries, Mathematical Disquisitions, Philosophical Enquiries and Experiments; Astronomical Meteorological and Geographical Observations; and Improvements in Agriculture, Arts, Manufactures and Commerce; and, in fine, to cultivate every Art and Science which may tend to advance the Interest, Honor, Dignity, and Happiness of a free, independent, and virtuous People.”⁹³

92. Ibid. pp. 212-215.

93. 1780. Massachusetts, Laws, Statutes, Etc. *An act to incorporate and establish a society for the cultivation and promotion of arts and sciences*. Early American Imprints, Series I: Evans. Date of Publication: 1780. Early American Imprints, Series 1, no. 16841 (filmed). Incorporating the American Academy of Arts and Sciences, Boston. “This act passed May 4, 1780”–p. [2]. References: Evans 16841. Ford, W.C. Broadides, 2237. Cushing, J.D. Mass. laws, 1105.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The American Association for the Advancement of Science (AAAS) was founded in 1848 by members of the former Association of American Geologists and Naturalists. The 1856 AAAS constitution states the Association's goals:

"By periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of the United States, to give a stronger and more general impulse, and a more systematic direction to scientific research in our country; and to procure for the labours of scientific men, increased facilities and a wider usefulness."⁹⁴

The administrative structure of the AAAS, a private corporation, was not tied directly to the United States government; however, the credibility associated with membership in the association made it possible for scientists to comment on public policy. In 1851, the AAAS had organized at least eight research commissions intentionally aimed at the federal government, and the Association's membership was dominated by scientists who were already officially engaged in government service.⁹⁵ Alexander D. Bache, President of the AAAS in 1851, declared that "an institution of science, supplementary to existing ones, is much needed in our country, to guide public action in scientific matters."⁹⁶ Dupree writes that Bache favored the branches of science employed in surveying and geographic exploration (mathematics, physics, and astronomy) and that his ideas did not include the application of biology and chemistry to agriculture.⁹⁷ In 1874, the AAAS was incorporated by an Act of the Senate and House of

94. American Association for the Advancement of Science (AAAS). 1856. *1856 AAAS Constitution*: http://archives.aaas.org/docs/documents.php?doc_id=413 (Accessed: December 22, 2008), —. 2008. *About AAAS*: AAAS. <http://www.aaas.org/aboutaaas/> (Accessed: November 22, 2008).

95. Dupree, A. H. 1957. *Science in the Federal Government: A History of Policies and Activities to 1940*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press. pp. 115-116.

96. Quoted in *ibid.* p. 117. Dupree quotes A.D. Bache, "Address," in *Proceedings of the American Association for the Advancement of Science*, 6:xli-lx (1851).

97. *Ibid.* pp. 118, 149.

Representatives of the Commonwealth of Massachusetts.⁹⁸ The administrative structure of the twenty-first century AAAS includes a governing Board of Directors and a Council. The Association's administrative structure is linked to its decentralized physical structure, which comprised of five regional divisions: Arctic, Caribbean, Pacific, Southwestern, and Rocky Mountain. There are twenty-four sections in the Association's intellectual structure, including agriculture, education, engineering, mathematics, physics, psychology, and social, economic, and political sciences.⁹⁹

FEDERAL SCIENCE AGENCIES IN THE NINETEENTH CENTURY

As part of our analysis of the National Academy of Sciences, we also looked at the structures of other private nineteenth-century scientific organizations. During the same century, a few scientific agencies that were part of the federal government were also established.

The Survey of the Coast, founded by President Thomas Jefferson in 1807, was the United States government's first scientific agency.¹⁰⁰ Section one of *An Act to provide for surveying the coasts of the United States* describes the scope of the Act:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States shall be, and he is hereby authorized and requested, to cause a survey to be taken of the coasts of the United States, in which shall be designated the islands and shoals, with the roads or places of anchorage, within twenty leagues of any part of the shores of the United States; and also the respective courses and distances between the principal capes, or head lands, together with such other matters as he may deem proper for completing an accurate chart of every part of

98. *An Act to Incorporate the "American Association for the Advancement of Science,"* 1874, in *Proceedings of the American Association for the Advancement of Science*, 1910, p. 36.

99. American Association for the Advancement of Science (AAAS). 2008. *About AAAS*: AAAS. <http://www.aaas.org/aboutaaas/> (Accessed: November 22, 2008).

100. National Oceanic & Atmospheric Administration. 2009. *NOAA Legacy*: <http://www.history.noaa.gov/noaa.html> (Accessed: January 2, 2009). In 1970, NOAA was created by joining the United States Coast and Geodetic Survey (established in 1807), the Weather Bureau (established in 1870), and the Bureau of Commercial Fisheries (established in 1871). Separately, these agencies were America's first physical science agency, America's first agency dedicated specifically to the atmospheric sciences, and America's first conservation agency. The administrative and intellectual structures of the original Coast Survey were organized by Ferdinand Rudolph Hassler, a Swiss immigrant.

the coasts within the extent aforesaid.”¹⁰¹

After the War of 1812 (1812-1815), Congress redirected the coastal survey responsibility to the Navy, but the Navy was unable to produce accurate charts of the coast. Consequently, in 1832, the survey was returned to its civilian origins in the Treasury Department and renamed the Coast Survey. In 1843, the Coast Survey’s leadership was given to Alexander D. Bache, the future AAAS President who linked the federal agency to university scientists through joint projects.¹⁰²

The United States Naval Observatory was established in 1830 as the Depot of Charts and Instruments. In 1844, its original mission to care for the Navy’s charts and navigational equipment was expanded to include astronomical research.¹⁰³

The United States Department of Agriculture (USDA), established by Congressional Act and signed by President Lincoln on May 15, 1862, had its origins in the United States Patent Office, which was established in 1802. In 1839, the Patent Office received an appropriation from Congress to compile agricultural statistics and for seed collection and distribution.¹⁰⁴ In 1889, another Act of Congress made the USDA

101. 1807. An Act to provide for surveying the coasts of the United States. [Act of Feb. 10, 1807, Sess. II, ch. 8, 2 Stat. 413-14 (1807)]. Ninth Congress. Sess. II. Ch. 5, 8. 1807. United States of America. See also: National Oceanic & Atmospheric Administration, Theberge, A. E. 1998. *The Coast Survey 1807-1867*. Volume I of the *History of the Commissioned Corps of the National Oceanic and Atmospheric Administration. The Hassler Legacy: Ferdinand Rudolph Hassler and the United States Coast Survey—The Early Years*: NOAA Central Library. National Oceanographic Data Center. <http://www.lib.noaa.gov/noaainfo/heritage/coastsurveyvol1/HASSLER1.html#BEGINNINGS> (Accessed: January 2, 2009).

102. Burstyn, H. L. 1983. “National Ocean Survey (NOS)” in Whitnah D. R., ed. *The Greenwood Encyclopedia of American Institutions: Government Agencies*. Westport, Connecticut: Greenwood Press. pp. 343-350.

103. Department of the Navy. 2008. *A Brief History of the Observatory*: U.S. Naval Observatory Public Affairs Office. http://www.usno.navy.mil/brief_history.shtml (Accessed: December 23, 2008).

104. See: Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. pp. 3-8. See also: Bowers, D. E. 1998. “Agriculture, Department of”. Pages 24-33 in Kurian G. T., ed. *A Historical Guide to the U.S. Government*. New York: Oxford University Press.; Rasmussen, W. D. 1983. “Department of Agriculture (USDA)”. Pages 86-91 in Whitnah D. R., ed. *The Greenwood Encyclopedia of American Institutions: Government Agencies*. Westport, Connecticut: Greenwood Press.; Dabney, C. W. 1900. “Agricultural Education” in Butler N. M., ed. *Education in the United States: A*

Commissioner of Agriculture a member of the President's cabinet. The 1862 Act to establish a Department of Agriculture states:

"... there is hereby established at the seat of Government of the United States a Department of Agriculture, the general designs and duties of which shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word, and to procure, propagate, and distribute among the people new and valuable seeds and plants." ¹⁰⁵

"... it shall be the duty of the Commissioner of Agriculture to acquire and preserve in his Department all information concerning agriculture which he can obtain by means of books and correspondence, and by practical and scientific experiments, (accurate records of which experiments shall be kept in his office,) by the collection of statistics, and by any other appropriate means within his power; to collect, as he may be able, new and valuable seeds and plants; to test, by cultivation, the value of such of them as may require such tests; to propagate such as may be worthy of propagation, and to distribute them among agriculturalists. He shall annually make a general report in writing of his acts to the President and to Congress..." ¹⁰⁶

In the 1870s and 1880s, the USDA hired research scientists. The Hatch Act of 1887, which set up agricultural experiment stations, initiated a cooperative program that linked the USDA, a federal research agency, with the land-grant colleges and universities. In the late nineteenth and early twentieth centuries, the USDA expanded its information distribution function to include active intervention to protect the public from food-borne health threats through provisions in the Meat Inspection Act of 1890 and the Pure Foods and Drugs Act of 1906. In 1914, the cooperative extension service was established under the Smith-Lever Act. ¹⁰⁷

Series of Monographs Prepared for the United States Exhibit at the Paris Exposition, 1900. Albany, New York: J. B. Lyon Company. pp. 11-13. Henry Leavitt Elsworth (1791-1858) was appointed Commissioner of the Patent Office in 1836. For greater detail on the history of the Patent Office and its relation to the USDA, see: Harding, T. S. 1941. "The Rise of the United States Department of Agriculture". *The Scientific Monthly* 53: 554-564. Harding was the Editor of Scientific Publications, U.S. Department of Agriculture.

105. 1862. An Act to Establish a Department of Agriculture. U.S.C. Title 7, Chapter 55, Section 2201, Establishment of Department. Act of May 15, 1862, ch. 72, §§ 1-4, 12 Stat. 387. Quoted text is an excerpt from §1 of the 1862 Act.

106. *Ibid.* Quote from §3.

107. Bowers, D. E. 1998. "Agriculture, Department of". Pages 24-33 in Kurian G. T., ed. A

In 1878, Congress passed the Timber and Stone Act that facilitated the legal transfer of thousands of acres of public timber lands to private ownership. Gaus and Wolcott write that this Act, like the Homestead Act of 1862, was freely abused, and that most of the marketable timber transferred under this Act was cut.¹⁰⁸ The United States Forest Service, established in 1905 as a bureau of the USDA, was given responsibility for the protection of the public forests created under the Forest Reserve Act of 1891. In 1907 the United States forest reserves, which were created from public domain lands, became the national forests.¹⁰⁹

In the 1930s, in response to the dust storms on the Great Plains and flooding in the eastern part of the nation, soil conservation became an important part of the USDA's farm programs. In 1933, the Soil Erosion Service was established in the Interior Department, then transferred to the USDA and renamed the Soil Conservation Service (SCS) in 1935. The SCS instructed farmers in soil conservation techniques such as terracing, contour plowing, and windbreaks to prevent erosion by wind and water.¹¹⁰

Nineteenth-century land legislation contributed to the exhaustion of the nation's natural resources, including its agricultural and forest lands.¹¹¹ In 1916, the *Yearbook of the Department of Agriculture* included a discussion of the state of the nation's natural resources and

Historical Guide to the U.S. Government. New York: Oxford University Press. pp. 25-27.

108. Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X.* Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 119.

109. See USDA Forest Service at: <http://www.fs.fed.us/> (Accessed: December 30, 2008). The National Forest System lands comprise 8.5 percent of the nation's total land area.

110. Bowers, D. E. 1998. "Agriculture, Department of". Pages 24-33 in Kurian G. T., ed. *A Historical Guide to the U.S. Government.* New York: Oxford University Press. p. 28.

111. See Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X.* Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]., footnote 9, page 119. Gaus quotes Arnold Tilden, *The Legislation of the Civil-War Period Considered as a Basis of the Agricultural Revolution in the United States* (Los Angeles: University of Southern California Press, 1937 —Dissertation): Tilden concludes with the statement: "... it may be said that the legislation succeeded in depriving the government of the United States and the people it represented of almost unlimited wealth in the form of natural resources, that it led to the rapid exhaustion of agricultural and forest lands and the wastage of other natural resources of the country..."

reported that four million acres of farmland had been lost to erosion, waterways and reservoirs had been damaged by siltation, forests had been destroyed, and pastureland had been overgrazed.¹¹²

THE USDA AND THE ORIGINS OF THE PUBLIC RESEARCH UNIVERSITY'S LAND-USE PLANNING POWERS

“There are no separate problems of forestry, of wildlife conservation, of grazing, of soil conservation, and of rational crop adjustment. There is one unified land use problem, of which forestry, grazing, crop adjustment, and so forth are merely aspects. This problem involves the whole pattern of soil, climate, topography, and social institutions; it has to do with social and economic conditions, as well as with the physical problems of crop, livestock, and timber production, and of soil and water conservation. Research and action programs must fit together, and come into a dynamic focus on the farm and on the watershed. Equally important, they must mesh with urban policy. Not otherwise can we attain the full efficient use, in town and country, of all our human and material resources.”¹¹³

In 1918, the Secretary of the USDA organized a series of conferences on agricultural policy that led to the establishment of the Division of Land Economics within the Department's Office of Farm Management. In 1922, the Division of Land Economics became part of the Bureau of Agricultural Economics (BAE), and had responsibility to approve land utilization projects to classify the nation's lands and determine their best uses. Research into agricultural and other land problems led to the conclusion that unwise land policies and farming practices had led to serious problems.¹¹⁴

112. Ibid. Also see the discussion of mining laws and associated environmental damage caused by mining operations in Andrews, R. N. L. 1999. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. New Haven: Yale University Press., pp. 98-100.

113. *Report of the Secretary of Agriculture*, 1938, page 59. Also quoted in Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 115.

114. Ibid. pp. 131-134. The BAE was established in the Department of Agriculture, effective July 1, 1922, by the Agricultural Appropriation Act (42 Stat. 532), May 11, 1922, consolidating the Bureau of Markets and Crop Estimates with the Office of Farm Management and Farm Economics. For additional administrative history, see: The United States National Archives and Records Administration. 1876-1961. Records of the Bureau

State governments also became interested in land-use problems. In 1926, the state of New York issued *The Report of the New York State Commission of Housing and Regional Planning*. It contained an inventory of the state's natural resources, along with their current and historical uses. Among other land use concerns, the report recommended the preservation of the Adirondack and Catskill Mountains to protect the state's water resources and recreation areas.

In 1929, planning agencies were established in Wisconsin and Illinois.¹¹⁵ In that same year, the Joint Committee on Bases of Sound Land Policy, organized by the Federated Societies of Planning and Parks of Washington, D.C., published its report titled *What About the Year 2000?* This report asked the questions: "Will our land area in the United States meet the demands of our future populations?" and "How are we to determine the best use of our land resources?" The report's conclusion included a plea for comprehensive land use planning from a national point of view and said that "future land policies ought to be formulated in answer to the question: Should more land or particular tracts of land be used to produce commodities or can the land be put to better social advantage?"¹¹⁶

In 1931, the Secretary of Agriculture and the Executive Committee of the Association of Land Grant Colleges and Universities organized the National Conference of Land Utilization. The preamble to the report published by this conference called for land use policies that applied to both public and private lands:

of Agricultural Economics [BAE]. (Bibliographic note: Web version based on *Guide to Federal Records in the National Archives of the United States*. Compiled by Robert B. Matchette et al. Washington, DC: National Archives and Records Administration, 1995. 3 volumes, 2428 pages.): <http://www.archives.gov/research/guide-fed-records/groups/083.html#83.1> (Accessed: December 31, 2008).

115. Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. p. 137.

116. *Ibid.* pp. 137-138.

Martin, L. R., ed. c1977-1992. *A Survey of Agricultural Economics Literature. Volume 3: Economics of Welfare, Rural Development, and Natural Resources in Agriculture, 1940s to 1970s*: Published by the University of Minnesota Press for the American Agricultural Economics Association. p. 403. Martin quotes from pages xv and 168 of the 1929 report titled *What About the Year 2000?*

“It therefore becomes imperative for all groups connected with land use to cooperate in formulating new policies which shall be actively addressed, through adequate and unified organization and coordination, to the intelligent use of all publicly and privately owned land whether or not it be submarginal or supermarginal. The central purposes of these policies should be to develop and conserve our land resources in such manner as to provide adequately for our present and future needs. Any adequate land policy must provide for the preservation of soil fertility, must aid toward adjustment of production to demand, must provide for economic use of marginal lands, and in other ways must make for the security of agriculture.”¹¹⁷

The Program Planning Division, established within the Agricultural Adjustment Administration in 1933, was the first attempt of the USDA to plan a national agricultural program. The creation of state, regional, and national planning councils with authority to classify and map land by type of farming was suggested by the Chief of the Program Planning Division, Howard R. Tolley.¹¹⁸

In 1936, the Committee on Federal-State Relations, appointed by the Association of Land Grant Colleges and Universities, met with a similar committee from the USDA in a series of joint meetings to clarify the role of the land-grant institutions in national/state land-use planning collaborations. The final meeting, held at Mount Weather, Virginia, July 8, 1938, resulted a joint statement known as the Mount Weather Agreement.¹¹⁹

Rasmussen says that the Committee on Organization and Policy of the Association of Land-Grant Colleges and Universities was concerned about the relation between the Extension Services and the federal New

117. *Proceedings of the National Conference on Land Utilization*, Chicago, November 19-21, 1931, pp. 240-241. Quoted in Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. Footnote 51, page 140.

118. Banfield, E. C. 1952. “Organization for Policy Planning in the U.S. Department of Agriculture”. *Journal of Farm Economics* 34: 14-34. pp. 15-16.

119. *The Joint Statement by the Association of Land Grant Colleges and Universities and the Department of Agriculture on Building Agricultural Land Use Programs*, and the *Memorandum Describing Departmental Organization*, which emerged from the meeting at Mount Weather in 1938, are reproduced in Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. Appendix B, pp. 463-475.

Deal agencies (in particular the Agricultural Adjustment Administration and the Soil Conservation Service), and wanted the land-grant colleges to “be designated as the sole agency for leadership in research and extension education in all so-called action or other programs dealing with individual farmers...”¹²⁰ Prior to the Agricultural Adjustment Act of 1933, most federal aid to agriculture was in the form of grants to the land-grant colleges. In 1936, there was a proposal to separate the USDA’s Agricultural Adjustment Administration from the land-grant college extension service, and to establish direct connections between the USDA and the counties. Some of the extension service directors opposed this change.¹²¹

The Mount Weather Agreement of 1938 preserved the relationship between the USDA and the Cooperative Extension Service connected to the land-grant colleges and universities that was established under the Smith-Lever Act of 1914. The 1914 Act states that extension work “shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this Act.”¹²² The 1938 Agreement, which is obscure, but crucially important to history and to the present and future of the public research university, recognized that “both the Department of Agriculture and the Land Grant Colleges and Universities wish to perpetuate and strengthen the harmonious and mutually helpful relations that have long existed between them,” and describes the administrative structure of a comprehensive land-use analysis and planning program that extends from farming communities to the county, state, and national levels.¹²³

120. Rasmussen, W. D. 1989. *Taking the University to the People: Seventy-five Years of Cooperative Extension*. Ames, Iowa: Iowa State University Press. Discussion and quote, p. 106. Note: Rasmussen, historian for the USDA, does not cite his source.

121. Benedict, M. R. 1953. *Farm Policies of the United States 1790-1950: A Study of their Origins and Development* [reprinted in 1966]. New York: Octagon Books, Inc. pp. 393-396.

122. 1914. Smith-Lever Act. 7 U.S.C. 341 et seq. (Act of May 8, 1914, ch. 79, 38 Stat. 372). The United States of America: United States Department of Agriculture. Cooperative State Research, Education, and Extension Service. <http://www.csrees.usda.gov/about/offices/legis/pdfs/smithlev.pdf>. Accessed: September 14, 2008. Section 2, 7 U.S.C. 342.

123. See: Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. Appendix B, p. 463. A detailed description of the decentralized administrative structure of the land-use planning program addressed by the Mount Weather

THE LIBRARY OF CONGRESS

The Library of Congress, an agency of the legislative branch of the United States government and part of the federal government's intellectual structure, has its own administrative, intellectual, and physical components. The legislative acts that established and refined the Library's functions, and its relationship to Congress and the nation, also shaped its intellectual and physical structures. The history of the Library reveals the evolution of these three interdependent structures.

The first sessions of Congress were held in New York City, in the city hall building. At that time, Congress had access to the New York Society Library, which was located in the same building. When Congress moved to Philadelphia, the Library Company of Philadelphia provided books to the President and Congress.¹²⁴ In July 1790, Congress passed *An Act for establishing the temporary and permanent seat of the Government of the United States*.¹²⁵ This Act relocated the seat of the government from Philadelphia, Pennsylvania, to a district located on the Potomac River. Congress moved to Washington, D.C. in 1800, a region that did not have an existing library. The physical, administrative, and intellectual beginnings of a Congressional library were established when President John Adams approved *An Act to make further provision for the removal and accommodation of the Government of the United States*. Section 5 of this Act states:

“... for the purchase of such books as may be necessary for the use of Congress at said city of Washington, and for fitting up a suitable apartment for containing them and for placing them therein, the sum of five thousand dollars shall be, and hereby is appropriated; and that the said purchase shall be made by the Secretary of the Senate and the Clerk of

Agreement is found in an 8-page pamphlet published by the USDA: 1940. *The Land Use Planning Organization*. United States Government Printing Office: Prepared by the Bureau of Agricultural Economics, in cooperation with the Extension Service and the Soil Conservation Service, U.S. Department of Agriculture. County Planning Series No. 3, Issued May 1940.

124. Johnston, W. D. 1904. *History of the Library of Congress*. Washington, D.C.: Government Printing Office. pp. 17, 23.

125. 1790c. An Act for establishing the temporary and permanent seat of the Government of the United States: *Statutes at Large*. Volume I. First Congress, Second Session, Statute II. Chap. 28. July 16, 1790. Edited by Richard Peters, Esq. Boston: Charles C. Little and James Brown, 1845. pg. 130. This session of Congress was held at the City of New York. George Washington was President, and John Adams was Vice President.

the House of Representatives, pursuant to such directions as shall be given, and such catalogue as shall be furnished by a joint committee of both houses of Congress to be appointed for that purpose; and that the said books shall be placed in one suitable apartment in the capitol in the said city, for the use of both houses of Congress and the members thereof, according to such regulations as the committee aforesaid shall devise and establish.”¹²⁶

William Dawson Johnston says that the library that was established following this Act served more than one purpose. In addition to providing books for legislative research, it was an important place for amusement and relaxation for members of Congress. For this reason, the collection of books included a greater number of works of general literature than books on politics. Dawson also claims that many legislators in the early nineteenth century relied on Greek and Roman authors and books of poetry to inform their political arguments rather than texts on constitutional law or political economy.¹²⁷

On January 26, 1802, President Jefferson signed into law *An Act concerning the Library for the use of both Houses of Congress*. This Act defined the administrative structure of the Library and changed its physical structure by requiring all the separate collections of books and maps kept by Congress to be brought together in one room. It established the office of a librarian, to be appointed by the President of the United States, and assigned Congress the power to establish regulations for the Library. It also created a joint committee of the Senate and House of Representatives to oversee the purchase of books and maps for the Library.¹²⁸ During his presidency, Jefferson appointed the first two Li-

126. *Statutes at Large*, Sixth Congress, First Session, Chap. 37. April 24, 1800. See also: Cole, J. Y., Aikin, J. 2004. “America’s Library: A Brief History of the Library of Congress” in Cole J. Y., Aikin J., eds. *Encyclopedia of the Library of Congress: for Congress, the nation & the world*. Washington, D.C.: Library of Congress; Lanham, Maryland: Bernan Press. p. 2.

127. Johnston, W. D. 1904. *History of the Library of Congress*. Washington, D.C.: Government Printing Office. William Dawson Johnson was educated at Brown University, the University of Chicago, and Harvard. He was an instructor in history at the University of Michigan and at Brown University. He was employed at the Library of Congress from 1900 to 1907. In 1909 he was appointed to be Librarian at Columbia University. 1909. “Columbia’s New Librarian”. *The New York Times*. June 6, 1909, p. 9. <http://query.nytimes.com/mem/archive-free/pdf?res=9C03E5D6173EE033A25755C0A9609C946897D6CF> (Accessed: February 23, 2009)

128. 1802. An Act concerning the Library for the use of both Houses of Congress: *Statutes*

brarians of Congress and recommended books for the Library.¹²⁹

On August 24, 1814, during the War of 1812, the British army invaded Washington and burned the Capitol, including the 3000-volume Library of Congress. The fire destroyed both the physical and the intellectual structure of the Library. In response, Jefferson wrote to his friend Samuel Harrison Smith, and offered to sell his personal library of over 6000 volumes to Congress to replace the lost collection of books.¹³⁰ In his letter, which Smith presented to Congress, Jefferson described his library and wrote:

“I do not know that it contains any branch of science which Congress would wish to exclude from their collection; there is, in fact, no subject to which a member of Congress may not have occasion to refer.”¹³¹

On January 30, 1815, Congress approved the purchase of Jefferson’s library for \$23,950.¹³² The books in Jefferson’s library extended the intellectual boundaries of the former library’s legal, economic, historical, and general interest volumes to include books on architecture, science, literature, geography, and the arts. Jefferson’s library also included works written in French, Spanish, German, Latin, and Greek.¹³³ Jefferson’s library was housed in the post-office building until the Capitol

at Large, Volume II. Seventh Congress, First Session, Statute I, Chapter II, January 26, 1802. Edited by Richard Peters, Esq. Boston: Charles C. Little and James Brown, 1845. pg. 128-129.

129. Billington, J. H. 1996. “Libraries, the Library of Congress, and the Information Age.” *Daedalus* 125: 35-54. p. 41.

130. Library of Congress. 2009. *Library of Congress: About the Library*. Library of Congress. Washington, D.C. <http://www.loc.gov/about/> (Accessed: February 9, 2009).

131. Johnston, W. D. 1904. *History of the Library of Congress*. Washington, D.C.: Government Printing Office. Letter to Smith is reproduced on pp. 69-71. See also: Library of Congress. 2002. *American Treasures of the Library of Congress. Tools of Democracy*. Thomas Jefferson to Samuel H. Smith, September 21, 1814: Library of Congress Manuscript Division. <http://www.loc.gov/exhibits/treasures/trm026.html> (Accessed: February 26, 2009). Jefferson’s letter is also reproduced in Billington, J. H. 1996. Libraries, the Library of Congress, and the Information Age. *Daedalus* 125: 35-54.

132. 1815. An Act to authorize the purchase of the library of Thomas Jefferson, late President of the United States: *Statutes at Large*. Volume III. Thirteenth Congress, Third Session, Statute III. Chapter 27. January 30, 1815. Edited by Richard Peters, Esq. Boston: Charles C. Little and James Brown, 1845. pg. 195.

133. Cole, J. Y., Aikin, J. 2004. “America’s Library: A Brief History of the Library of Congress” in Cole J. Y., Aikin J., eds. *Encyclopedia of the Library of Congress: for Congress, the nation & the world*. Washington, D.C.: Library of Congress; Lanham, Maryland: Bernan Press.

was rebuilt.¹³⁴

In 1832, the Library's intellectual and administrative structures both evolved when a separate law department was added to the Library and the Chief Justice of the United States was given an appropriation to purchase law books.¹³⁵

In 1851 the Library was the victim of another fire and about two-thirds of its 55,000-volume collection was destroyed, including much of Jefferson's library. Congress rebuilt the Library's rooms using cast iron walls, ceiling, and shelving to prevent future damage by fire, replaced the lost books, reopened the Library in 1853, but did not make any plans to expand the collection.¹³⁶

Librarian of Congress Ainsworth Rand Spofford, who served from 1864 to 1897, saw the Library of Congress as an independent national institution "in a republic which rests upon the popular intelligence," to be used by both the Congress and the people of the United States "as a means of education and enlightenment."¹³⁷ Under Spofford's administration, six legislative acts were passed that expanded the Library's intellectual, administrative, and physical structures. One of these acts transferred the entire scientific library of the Smithsonian Institution to the Library of Congress. The Copyright Act of 1870 centralized all copyright registration and deposits in the Library. The Copyright Act's deposit requirements created a shortage of space at the Library, prompting a request to Congress for a new building to accommodate

134. For greater detail on the shifting locations of the Library of Congress between 1824 and 1897, see: Spofford, A. R. 1878. "The Government Library at Washington". *The International Review* (1874-1883) [Retrieved February 27, 2009, from American Periodicals Series Online database. (Document ID: 409473881) Access provided by University of California, Santa Cruz, McHenry Library]. Vol. 5: 754-.

135. Cole, J. Y., Aikin, J. 2004. "America's Library: A Brief History of the Library of Congress" in Cole J. Y., Aikin J., eds. *Encyclopedia of the Library of Congress: for Congress, the nation & the world*. Washington, D.C.: Library of Congress; Lanham, Maryland: Bernal Press. p. 3.

136. Ibid. Spofford, A. R. 1878. "The Government Library at Washington". *The International Review* (1874-1883) [Retrieved February 27, 2009, from American Periodicals Series Online database. (Document ID: 409473881) Access provided by University of California, Santa Cruz, McHenry Library]. Vol. 5: 754-.

137. —. 1878. "The Government Library at Washington". *The International Review* (1874-1883) [Retrieved February 27, 2009, from American Periodicals Series Online database. (Document ID: 409473881) Access provided by University of California, Santa Cruz, McHenry Library]. Vol. 5: 754-.

the expanding collection.¹³⁸ In a speech delivered in 1879, Senator Justin S. Morrill, Chairman of the Senate Committee on Buildings and Grounds and also known for sponsoring the Morrill Act of 1862, supported Librarian Spofford's concept of a national library:

"We must either reduce the Library to the stinted and specific wants of Congress alone, or permit it to advance to national importance, and give it room equal to the culture, wants, and resources of a great people. The higher education of our common country demands that this institution shall not be crippled for lack of room."¹³⁹

In 1886, Congress authorized funding for a new Congressional Library, and it opened to the public in 1897. The building, now called the Jefferson Building, is recognized as a national treasure. The building's dome is plated with 23-carat gold, and its interior is decorated with paintings and sculpture created by over 40 artists.

In 2009, the physical structure of the Library of Congress includes three buildings: the Jefferson Building (authorized in 1886, and opened in 1897), the Adams Building (authorized in 1930, and opened in 1939), and the James Madison Memorial Building (authorized in 1965, and opened in 1980).¹⁴⁰

The Library of Congress provides a central source of published knowledge for Congress, but the nation also needs knowledge specific to new and pressing challenges. The establishment of public and private scientific agencies and organizations in the eighteenth and nineteenth centuries addressed the critical need for unbiased useful knowledge to guide the policies of the federal government and to serve societal

138. Cole, J. Y., Aikin, J. 2004. "America's Library: A Brief History of the Library of Congress" in Cole J. Y., Aikin J., eds. *Encyclopedia of the Library of Congress: for Congress, the nation & the world*. Washington, D.C.: Library of Congress; Lanham, Maryland: Bernan Press. pp. 3-5. Also: Library of Congress. 2009. *Library of Congress: About the Library*. Library of Congress. Washington, D.C. <http://www.loc.gov/about/> (Accessed: February 9, 2009).

139. Quoted in Cole, J. Y., Aikin, J. 2004. "America's Library: A Brief History of the Library of Congress" in Cole J. Y., Aikin J., eds. *Encyclopedia of the Library of Congress: for Congress, the nation & the world*. Washington, D.C.: Library of Congress; Lanham, Maryland: Bernan Press. p. 6. The international copyright law of 1891 brought deposits of foreign works into the library.

140. National Park Service. 2009. *Washington, D.C.: A National Register of Historic Places Travel Itinerary*. Library of Congress. See also: Library of Congress, Cole, J. Y. 2006. *On These Walls: Inscriptions and Quotations in the Buildings of the Library of Congress*: Library of Congress. <http://www.loc.gov/loc/walls/> (Accessed: February 26, 2009).

needs. Since all of these institutions are dependent on the expertise of highly educated individuals, the establishment of a centrally governed National University that offered programs relevant to the needs of the nation would have made sense. But, the Tenth Amendment, approved by Congress and ratified in 1791, pushed the nation away from the idea of a National University. The Morrill Act of 1862 provided both the financial stimulus and intellectual direction needed to guide the nation toward the establishment of a national system of educational and research programs that would serve both national and regional needs.

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CHAPTER 9 – PART ONE

The University of California

“...the argument for higher tuitions on the grounds that ‘those who benefit should pay’ has strong appeal in our individualistic, profit-motivated society. A pertinent question is, then, ‘Who, actually, does benefit?’...The traditional answer has been that there are both public and private benefits from higher education, but that the larger objective is an educated human resource, cultivated in the arts, sciences, and technologies required in each era for material progress, welfare, and national security ... Basically, a policy which requires the student to finance a major part of the expense of this socially necessary educational function seems, in this context, at least undesirable and possibly dangerous. The public benefit doctrine suggests that the public should bear the major burden of financing higher education.”
—William A. Neiswanger, 1959 ¹

Administrative Structure: Historical background, an overview of the University’s funding sources, and case studies illustrating the role of the California Legislature in the University’s governance

INTRODUCTION

The late 19th century was the period of rapid expansion of the national network of state universities as all states got involved in the development of higher education. By 1970, nearly all of the public research universities that were going to be established had been. ² As

1. Neiswanger, W. A. 1959. “Tuition Policy and Benefits Received”. *The Educational Record* [American Council on Education] 40. William Addison Neiswanger (1900-1978) was Professor in the Department of Economics at the University of Illinois from 1936 to 1967. Also quoted in: American Association of Land-Grant Colleges and State Universities. 1961. *Land-grant Fact Book; Centennial Edition*. Washington, D.C., pp. 37-38.

2. See Appendix A for the years of establishment of the land-grant public research universities established under the provisions of the 1862 and 1890 Morrill Acts. Not all public research university universities are land-grant institutions. The Massachusetts Institute of Technology and Cornell University are privately-controlled land-grant institutions. These two private institutions are included in the table of land-grant institutions in Appendix A, but are not included in the 221 institutions represented in Figure 9.1 in this chapter.

student populations have expanded, campuses have continued to grow individually and established public universities have added new campuses. Figure 9.1 displays these trends. Of the 221 public research university campuses represented in Figure 9.1, more than sixty percent had been established by the late nineteenth century, and about thirty-eight percent of the total were established during the twentieth century. Established in 1868, the University of California, the first multi-campus public research university system established in the United States,³ added seven new campuses during the twentieth century.⁴ UC Merced, which opened in 2005, is the only new public research university campus to have been established in the nation since 1969.

Other factors that have contributed to the growth of individual campuses include the advancement of knowledge driven by research and a corresponding increase in scholarly disciplines. As university academic divisions, departments, and programs have multiplied, so have supporting institutional administrative and physical structures. University advancement and marketing divisions, as well as financial services, have expanded as funding for higher education has become increasingly diversified and competitive, and as states have reduced unrestricted funding for higher education.

With the University of California serving as the model to represent the public research universities established in the United States under the provisions of the Morrill Act of 1862, this chapter carries our history forward from the mid-nineteenth century into the early twenty-first century. Following the pattern established in our chapters on

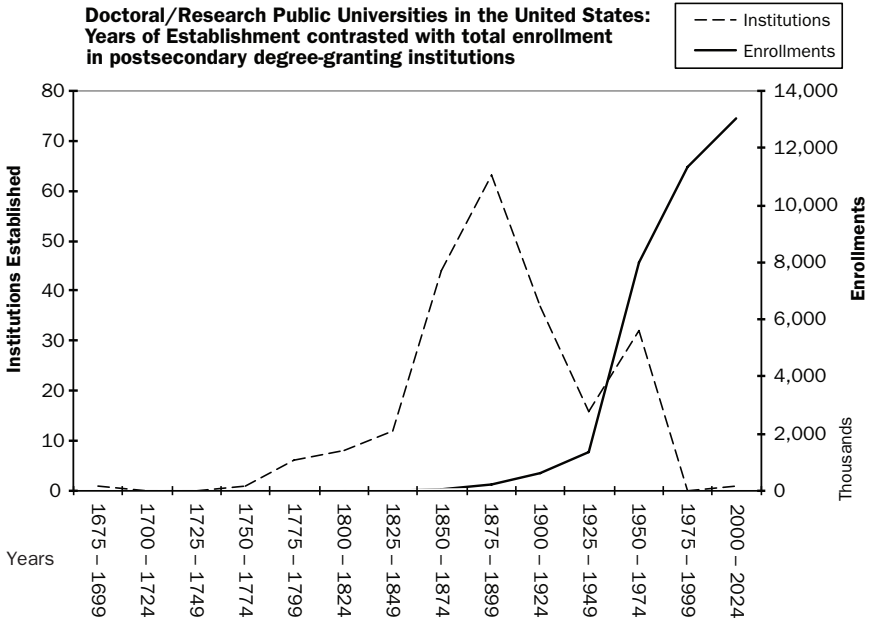
3. Douglass, J. A. 1998. *A Brief on the Historical Development of the UC Academic Senate and the Universitywide Administration*. Prepared for the University of California Academic Senate. (October 9, 2011 <http://www.universityofcalifornia.edu/senate/reports/senadbrf.pdf>)

4. These seven campuses include UC Davis (1905), UC Santa Barbara (1909), UC Los Angeles (1919), UC Riverside (1954), UC San Diego (1959), UC Santa Cruz (1962), and UC Irvine (1965). UC San Francisco, the only campus devoted exclusively to the health sciences, was established in 1872 as an affiliate college, or department, of UC Berkeley. In 1964, UCSF, operating under the name University of California, San Francisco Medical Center, was given full administrative independence. In 2011, UC has ten campuses. See: University of California, San Francisco. 2011. About UCSF: UCSF History. (July 23, 2011 <http://www.ucsf.edu/about/history-1>)

See also: The Regents of the University of California. 1999. University of California History: Digital Archives – General History. (July 23, 2011 http://sunsite.berkeley.edu/~ucalhist/general_history/index.html)

Dartmouth College and the University of Virginia, we examine the University of California’s administrative and intellectual structures with an objective to discover what role the 1862 Morrill Act plays in the intellectual direction of today’s public research university.

Figure 9.1



Sources for Figure 9.1: Enrollment data from National Center for Educational Statistics. *Digest of Educational Statistics*, Table 3. Enrollment in educational institutions by level and control of institution: selected years, 1869-70 through fall 2016. http://nces.ed.gov/programs/digest/d07/tables/dt07_003.asp. Accessed 6/17/2008. Additional enrollment data from Burke, Colin B., *American Collegiate Populations: A Test of the Traditional View*. New York University Press, New York, 1982. Table 2.1, p. 54, Table 5.1, p. 216. Years of establishment from: *2008 Higher Education Directory, twenty-sixth edition*. Higher Education Publications, Inc, 2008. Editor, Jeanne M. Burke. Falls Church, Virginia.

Background

In 1867, the State Board of Directors of an institution that existed only on paper—the Agricultural, Mining, and Mechanical Arts College—accepted an offer from the Board of Trustees of the College of California to donate the Alameda County lands and buildings of their College to the State of California for the establishment of the University of California. Founded in 1868, the University of California’s first

classes were offered in the Oakland buildings of the former College of California.⁵ By 1873, the University of California had relocated to its present site in Berkeley, California. The first UC Berkeley campus buildings included South Hall (College of Agriculture), and North Hall (College of Letters).⁶

The University of California added seven new campuses in the twentieth century to create the first multi-campus public research university system to be established in the United States. Those seven new campuses are UC Davis (1905), UC Santa Barbara (1909), UC Los Angeles (1919), UC Riverside (1954), UC San Diego (1959), UC Santa Cruz (1962), and UC Irvine (1965).⁷ UC San Francisco (UCSF), the only campus devoted exclusively to the health sciences, was established in 1872 as an affiliate college, or department, of the University of California, Berkeley. In 1964, UCSF, operating under the name University of California, San Francisco Medical Center, was given full administrative independence.⁸ With the 2005 addition of the UC Merced cam-

5. Contra Costa Academy, founded in Oakland in 1853, “eventually became the College of California, an evolutionary antecedent” of the University of California. For additional information on the early history of the University of California, see chapters 1 and 2 in: Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. See also: Ferrier, W. W. 1930. *Origin and Development of the University of California*. Berkeley, California: The Sather Gate Bookshop.

“The College of California was chartered in 1855 and operated in Oakland, California until 1869. Initially it functioned as a preparatory academy, under the name of College School, and the first college class of ten freshmen began in 1860. The aspirations of the College led it to search for a larger site as early as 1856, and this search gradually led to the acquisition of land north of Oakland at a site the trustees named Berkeley, after George Berkeley, Bishop of Cloyne.” Quote from: *Online Archive of California*. 2012. “Guide to the Documents of the College of California.” (April 10, 2012, <http://www.oac.cdlib.org/findaid/ark:/13030/tf6n39n968/>)

6. University of California. 1873. *Biennial Report of the Regents of the University of California for the years 1872-73*. Statement of the Condition of the University of California, December 1, 1873. Sacramento: State Printing Office.

7. Douglass, J. A. 1998. *A Brief on the Historical Development of the UC Academic Senate and the Universitywide Administration*. Prepared for the University of California Academic Senate. (October 9, 2011 <http://www.universityofcalifornia.edu/senate/reports/senadbrf.pdf>), The Regents of the University of California. 2004. *General History: the ten campuses—Berkeley: Historical Overview*. University of California History, Digital Archives. (June 17, 2009, http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/overview.html, and http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucb/index.html)

8. University of California, San Francisco. 2011. *About UCSF: UCSF History*. (July 23, 2011,

pus to the system, the University of California now has ten campuses.⁹

ADMINISTRATIVE STRUCTURE OF THE UNIVERSITY OF CALIFORNIA

The University's Charter, the Morrill Act of 1862, and the State's Constitution

The core governing documents of the University of California are the federal Morrill Act of 1862 and subsequent related federal legislation; the California statute that established the University, known as the Organic Act of 1868; the 1879 Constitution of California, Article IX, Section 9 (as amended); and specific parts of the report titled *A Master Plan for Higher Education in California 1960-1975* that were codified by the *Donahoe Higher Education Act* (1960) and are part of the California Education Code. Although the University of California has multiple governing documents, the federal Morrill Act of 1862 controls those enacted by the State of California. Article VI, clause 2 (the Supremacy Clause) of the United States Constitution assures that federal laws take precedence over state law:

“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme

<http://www.ucsf.edu/about/history-1> See also: The Regents of the University of California. 1999. University of California History: Digital Archives - General History. (July 23, 2011, http://sunsite.berkeley.edu/~ucalhist/general_history/index.html)

9. The ten UC campuses do not include the University of California Hastings College of the Law, which was established by statute in 1878 (Statutes of California, 1877-78, Chapter 351, p. 533). Located in San Francisco, the College was UC's first law school and was created as an affiliate department of the University of California; however, the College is controlled by an independent board of directors, not by the Regents of the University of California. Verne A. Stadtman says that Hastings College of the Law is a “legal curiosity.” He writes: “After ratification of California's second constitution in May, 1879, the University's organization and government were frozen in the forms described in the Organic Act and its amendments and could be changed only by the Regents. Because the Hastings College Act was regarded as one of the amendments to the Organic Act, it, too, enjoyed constitutional sanction. Ironically, this status later prevented the school from becoming a regular department of the University.” See: Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. Pp. 131-133. UC Hastings College of the Law. 2011. *University of California, Hastings College of the Law: Exploring the College's Past*. (October 8, 2011, <http://www.uchastings.edu/about/history/index.html>)

Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”¹⁰

In addition to defining the institution’s purpose, the university’s core governing documents provide essential administrative controls, outline the university’s intellectual structure, and identify sources of funding. In comparison with the University of California’s multiple governing documents, Dartmouth College, a privately-controlled institution, has one core governing document, its colonial-era charter. The University of Virginia’s governing document is its founding Act, a state statute incorporated in the Virginia Code.¹¹

The University of California was established under the provisions of *An Act to Create and Organize the University of California*, also known as the *Organic Act of 1868*.¹² The Organic Act defined the University’s purpose and administrative structure, identified sources of funding for the University, and included intellectual direction based on the 1862 Morrill Act’s requirements for programs in agriculture and the mechanic arts. Section one of the 1868 Organic Act states:

“A State University is hereby created...under and by the provisions of an Act of Congress passed July second, eighteen hundred and sixty-two, entitled an Act donating land to the several States and Territories which

10. United States of America. 1789. United States Constitution, Article VI, clause 2. (March 12, 2012, http://www.senate.gov/civics/constitution_item/constitution.htm#a6)

11. The statute that established the University of Virginia is set forth in the Code of Virginia (statutory law), Title 23, Chapter 9. In regard to institutions of education other than elementary and secondary schools, Article VIII, Section 9 of the Constitution of Virginia states: “The General Assembly may provide for the establishment, maintenance, and operation of any educational institutions which are desirable for the intellectual, cultural, and occupational development of the people of this Commonwealth. The governance of such institutions, and the status and powers of their boards of visitors or other governing bodies, shall be as provided by law.”

12. The University of California’s core governing documents—the Organic Act of 1868, the Morrill Act of 1862, and Article IX, Section 9, of the Constitution of California—are each reproduced in full in the Appendix of the 1874-5 *Register of the University of California*. The Appendix of the 1879-80 *Register of the University of California* includes the text of both the 1863 and 1879 versions of Article IX, Section 9, of the Constitution of California. University of California, The Regents of the University of California. 1875. *Register of the University of California, 1874-5: Literary and Scientific Departments*. Berkeley, California. Appendix, pp. 124-134.

—. 1879. *Register of the University of California, 1879-80: Literary and Scientific Departments*. Berkeley, California. Appendix, pp. 117-129.

may provide colleges for the benefit of agriculture and the mechanic arts. The said University shall be called the University of California ...The University shall have for its design, to provide instruction and complete education in all the departments of science, literature, art, industrial and professional pursuits, and general education, and also special courses of instruction for the professions of agriculture, the mechanic arts, mining, military science, civil engineering, law, medicine and commerce, and shall consist of various colleges..."¹³

The Organic Act's description of the University of California's intellectual structure can be read as being at variance with the terms of the Morrill Act of 1862, the public research university's original source of intellectual direction. The Morrill Act defines the "leading object," of the university as being the teaching of "such branches of learning as are related to agriculture and the mechanic arts" without excluding the "other scientific and classical studies." The intention is the promotion of "the liberal and practical education of the industrial classes on the several pursuits and professions in life." Given that the "branches of learning" related to agriculture and the mechanic arts cover a broad scope of subjects, these "other scientific and classical studies" can be understood as being part of the essential interdisciplinary constituents of agriculture and the mechanic arts. In Section One of the 1868 Organic Act, the Morrill Act's "leading object" disciplines of agriculture and the mechanic arts are put in a list of "special courses of instruction" for certain professions that are offered in addition to "complete education in all the departments of science, literature, art, industrial and professional pursuits, and general education."

In her foreword to the book, "The University in the 1870s," Carroll Brentano says that the language in Section Four of the Morrill Act can be read in two ways by separating a subordinate clause that reads, "without excluding other scientific and classical studies," from the longer sentence, "...the leading object shall be, without excluding other scientific and classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts."¹⁴ Brentano contends

13. State of California. 1868b. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session*. 1867-1868, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>)

14. United States Congress. 1862. Chapter CXXX. – "An Act Donating Public Lands to the

that in the nineteenth century, two opposing groups—proponents of agriculture and those who placed greater importance on classical studies—each relied on separate parts of that one sentence in the Morrill Act to support their demands for equality “in the allocation of buildings and faculty resources.”¹⁵ Irrespective of how the language of the Morrill Act’s Section Four is appropriated to support particular positions, the word group, “...the leading object shall be...to teach such branches of learning as are related to agriculture and the mechanic arts,” forms a complete sentence and is unambiguous in its intent.¹⁶

The State of California was responsible for carrying out the Morrill Act’s requirements, but by creating a university in which courses in agriculture and the mechanic arts are named as separate programs in a list of “special courses of instruction,” and not recognized as being the required “leading object” of the institution, Section One of Organic Act of 1868 inverts the Morrill Act’s intent.

Section One of the Organic Act also provides that the University of California “shall be located upon the grounds heretofore donated to the State of California by the President and Board of Trustees of the College of California,” and that the “University shall be under the charge and control of a Board of Directors, to be known and styled “the Regents of the University of California.”¹⁷

several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) Section 4.

15. Brentano, C., Rothblatt, S., eds. 1996. “The University in the 1870s.” *Chapters in the History of the University of California*, Number Six Berkeley, California: Center for the Studies in Higher Education and Institute of Governmental Studies, University of California, Berkeley, pp. x-xi. Carroll Brentano is managing editor of the periodical “Chronicle of the University of California.”

16. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

17. State of California. 1868a. An Act to Create and Organize the University of California [Approved March 23, 1868], Chapter CCXLIV, §§1-27. Pages 248-259. The Statutes of California, passed at the Seventeenth Session of the Legislature, 1867-8. Sacramento: D. W. Gelwicks, State Printer. For historical details regarding the chosen site in Alameda County for the University of California, see pages 27-32 in: Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. On page 44, Stadtman writes: “Instead of getting

Section Two of the Act defined the order in which the departments, or colleges, of the University would be established. The College of Arts was identified by the Act as the first of the University of California's academic departments to be established. The following colleges were included within the College of Arts and were to be established in order of listing: (1) College of Agriculture, (2) College of Mechanic Arts, (3) College of Mines, and (4) College of Civil Engineering. The College of Letters was identified as the second to be organized, and professional colleges including those of law and medicine were to be established last.¹⁸ The powers of the University's Board of Regents, President, Secretary to the Regents, and members of the Faculty and Academic Senate are also defined in the Act.

In the mid- eighteen-seventies, only a few years after the founding of the University of California, members of the Grange, a farmer's organization, challenged the University with an assertion that the University was mismanaged and had allocated more of its resources to classical studies than to practical courses in agriculture and the mechanical arts. Pointing to the Morrill Act's requirement that the purpose, or "leading object" of the endowed land-grant university is to teach "such branches of learning as are related to agriculture and the mechanic arts," the Grange (joined by William Swinton, Professor of Literature, and Ezra Carr, Director of the University's College of Agriculture), said the University's curricular emphasis was inconsistent with the intent of the Act.¹⁹ Douglass explains that the Grange's protests, which expressed

\$40,000 worth of Oakland and outlying Berkeley property from the College of California as a gift, the Regents found out they would have to buy it."

18. State of California. 1868a. An Act to Create and Organize the University of California [Approved March 23, 1868], Chapter CCXLIV, §§1-27. Pages 248-259. *The Statutes of California, passed at the Seventeenth Session of the Legislature, 1867-8*. Sacramento: D. W. Gelwicks, State Printer.

19. The Morrill Act of 1862 clearly defines the purpose of the land-grant university: "... one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life."

United States Congress. 1862. Chapter CXXX. — "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

concerns about “the purpose, curriculum, and operation of California’s land-grant institution under the law,” were “not frivolous.”²⁰ In addition, as part of its strategy to assert control over the University, the Grange, distrustful of the government, proposed legislation that would abolish the University’s existing governing board and reorganize the University’s administration. The accusation of mismanagement led to a legislative investigation of the University. This opposition to the university was defeated, but political challenges from agricultural interests were revived later in the decade when political turmoil, a drought, economic instability, and other issues led to a state constitutional convention.²¹

On March 30, 1878, the California Legislature passed *An Act to provide for a Convention to frame a new Constitution for the State of California*.²² During the Constitutional Convention, William F. White, a farmer from Pajaro Valley and a delegate to the Convention, suggested the new constitution include a mandate that “every student shall spend at least two hours every day in manual labor, at some mechanical art or in cultivating the ground.” He also proposed the following language be included in the constitution: “The Legislature shall enact laws for the modification and management of the State University, so that hereafter all instruction shall be of a practical nature, and confined to such teaching as shall properly belong to all mechanical arts and sciences, and to all sciences properly relating to agriculture, and no other.”²³ The proposed amendment was inconsistent with the 1862

See also: Swinton, W. 1874. *The University and its Managers Before the People and the Law*. Sacramento.

20. Douglass, J. A. 1992. “Creating a Fourth Branch of State Government: The University of California and the Constitutional Convention of 1879”. *History of Education Quarterly* 32: 31-72. pp. 42-43.

21. *ibid.*

22. State of California. 1878. *The Statutes of California Passed at the Twenty-second Session of the Legislature, 1877-8*. Sacramento: State Office of Printing. Chapter 490. Pp. 759-765.

23. Douglass, J. A. 1992. “Creating a Fourth Branch of State Government: The University of California and the Constitutional Convention of 1879”. *History of Education Quarterly* 32: 31-72. Douglass cites “Debates and Proceedings of the Constitutional Convention of the State of California, 1879” (Sacramento, 1880) p. 81, 85.
Also: —. 2000. *The California Idea and American Higher Education: 1850 to the 1960 Master Plan*. Stanford, California: Stanford University Press. p. 61.

Morrill Act's requirement that the "classical studies" be included in the branches of learning to be taught at the colleges established under the Act. In addition to its proposed changes to the University's intellectual structure, the Grange suggested that members of the University's governing board (The Regents of the University of California) be elected rather than appointed.²⁴ Jacob Freud, a graduate of UC Berkeley and member of the Constitutional Convention's Committee on Education, spoke in defense of the University and in opposition to the election of Regents. He argued, "... experience has invariably shown that the election of Regents involves the destruction and ruin of the university ... it sets the university adrift upon the boisterous sea of politics, sure to wreck to pieces on the rocks of partisan life and party contention."²⁵ Joseph Winans, Regent of the University of California and chair of the Committee on Education at the California Constitutional Convention of 1878, argued for the adoption of an amendment to Article IX, Section 9 offered by Mr. Webster, a farmer from Alameda. Webster's proposed amendment defined the University of California as a public trust, separate from the Legislature and governed by an independent board of regents. Winans expressed his concern that "throwing the University into the hands of the Legislature" would make it "the plaything of politics." Universities, he insisted, "must be beyond all power of assault and subversion, or they will be a failure...so long as [the University] is made subject to legislative caprice; so long as it can be made subject to the beck of politicians; so long as it can be made to subserve sectarian or political designs, it will never flourish."²⁶

At Dartmouth College, we found that the terms of a charter can offer protection to institutions of higher education from external political interests. The University of Virginia's charter, which excluded theology

24. —. 1992. "Creating a Fourth Branch of State Government: The University of California and the Constitutional Convention of 1879". *History of Education Quarterly* 32: 31-72. p. 55.

25. *Ibid.* Douglass cites "Debates and Proceedings of the Constitutional Convention of the State of California, 1879" (Sacramento, 1880) p. 1110.

26. Willis, E. B., Stockton, P. K. 1881. *Debates and Proceedings of the Constitutional Convention of the State of California, Convened at the City of Sacramento, Saturday, September 28, 1878*. Volume III. Sacramento, California: State Printing Office. p. 1476. The amendment was adopted as part of the 1879 Constitution of California. Also quoted in: Douglass, J. A. 2000. *The California Idea and American Higher Education: 1850 to the 1960 Master Plan*. Stanford, California: Stanford University Press. pp. 67-68.

from the University's intellectual direction, together with the *Virginia Statute for Religious Freedom*, protected the university from influence by religious interests. The Organic Act of 1868 prohibited political and religious tests in the appointment of Regents and Faculty at the University of California. Section 13 of the Organic Act states:

"And it is expressly provided that no sectarian, political or partisan test shall ever be allowed or exercised in the appointment of Regents, or in the election of professors, teachers, or other officers of the University, or in the admission of students thereto, or for any purpose whatsoever; nor at any time shall the majority of the Board of Regents be of any one religious sect, or of no religious sect; and the persons of every religious denomination, or of no religious denomination, shall be equally eligible to all offices, appointments and scholarships."²⁷

To further defend the University of California's administrative and intellectual integrity, Article IX, Section 9 of the 1879 Constitution of California raised the status of the university to an autonomous "public trust,"²⁸ protected from both political and religious influence:

"The University of California shall constitute a public trust, and its organization and government shall be perpetually continued in the form and character prescribed by the organic act creating the same, passed March twenty-third, eighteen hundred and sixty-eight ... It shall be entirely independent of all political or sectarian influence, and kept free therefrom in the appointment of its regents and in the administration of its affairs"²⁹

27. State of California. 1868b. *An Act to Create and Organize the University of California* (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?doclid=hb6w100756&brand=calisphere>) Section 13.

28. The University of California is property held in trust by the State of California for the use of the citizens of the state.

"[A] trust involves three elements, namely, (1) a trustee, who holds the trust property and is subject to equitable duties to deal with it for the benefit of another; (2) a beneficiary, to whom the trustee owes equitable duties to deal with the trust property for his benefit; (3) trust property, which is held by the trustee for the beneficiary." *Restatement (Second) of Trusts* § 2 cmt. h (1959). Philadelphia : American Law Institute. Quoted in: 1999. "trust, n." in Garner B. A., ed. *Black's Law Dictionary, Seventh Edition*. St. Paul, Minnesota: West Group.

29. State of California. 1868b. *An Act to Create and Organize the University of California* (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?doclid=hb6w100756&brand=calisphere>)

Administrative Structure: Funding for the University of California

Four sources of financial support for the University of California are identified in Section 20 of the Organic Act of 1868. These sources are: (1) Capital, income, and interest from the sale of federal lands granted to the State under the 1853 Act of Congress titled *An Act to provide for the Survey of the Public Lands in California*³⁰; (2) Revenue and interest from the investment of the proceeds of the sale of lands granted to the State by the Morrill Act 1862; (3) Special endowments derived from the United States, the State, and public or private sources; and (4) Appropriations from the State Legislature.³¹

The Organic Act acknowledged current and anticipated future “special endowments” derived from various public and private sources, but does not mention whether any conditions or restrictions associated with those funding sources would invalidate or supplement the Morrill Act’s intellectual direction.

The California Legislature did not include a funding formula or a specific level of state appropriations for support of the University in

30. United States Congress. 1853a. *An Act to provide for the Survey of the Public Lands in California, the granting of Preemption Rights therein, and for other purposes* [10 Stat., 244, Chapter 145, Approved March 3, 1853]. Pages 244-248 in Minot G., Esq., ed. *The Statutes at Large and Treaties of the United States of America, Volume X [published 1855]*. Boston: Little, Brown and Company. “Section 12. And be it further enacted, That the quantity of two entire townships, or seventy-two sections, shall be and the same is hereby granted to the State of California for the use of a seminary of learning, said lands to be selected by the Governor of the State, or any person he may designate for that purpose, in legal subdivisions of not less than a quarter-section of any of the unsold, unoccupied and unappropriated public lands therein, subject to the approval of the Secretary of the Interior, and to be disposed of as the Legislature shall direct: Provided, however, That no mineral lands, or lands reserved for any public purpose whatever, or lands to which any settler may be entitled under the provisions of this act, shall be subject to such selection.”

31. —. 1853b. *An Act to Provide for the Survey of the Public Lands in California, the Granting of Preemption Rights Therein, and for Other Purposes*. United States of America: March 3, 1853 – Thirty-Second Congress – Chap. 145. 10 Stat., 244. Section 20. See also: —. 1862. Chapter CXXX. – *An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts*. (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) See also: State of California. 1868b. *An Act to Create and Organize the University of California* (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?doclid=hb6w100756&brand=calisphere>)

Section 20 of the Organic Act, “Appropriations for endowment and support,” nevertheless, some level of financial support to the University from the Legislature was clearly anticipated with the statement:

“For the endowment and support of the University and its buildings and improvements, there are hereby appropriated: ... Fourthly — All such appropriations as may be made for that purpose by the Legislature.”³²

The 1853 Act of Congress titled *An Act to provide for the survey of the public lands in California* did not provide intellectual direction to the University. However, in Article IX, Section 9 of the original 1879 version of the Constitution of California, The University of California is described as a “college of agriculture,” with its intellectual structure clearly linked to the funding provisions of the Morrill Act of 1862:

“... all the moneys derived from the sale of the public lands donated to this state by act of congress, approved July second, eighteen hundred and sixty-two (and the several acts amendatory thereof), shall be invested as provided by said acts of congress, and the interest of said moneys shall be inviolably appropriated to the endowment, support and maintenance of at least one college of agriculture, where the leading objects shall be (without excluding other scientific and classical studies, and including military tactics) to teach such branches of learning as are related to scientific and practical agriculture and the mechanic arts, in accordance with the requirements and conditions of said acts of congress...”³³

With the November 5, 1918, amendments to the Constitution of California, reference to the Organic Act of 1868 was removed from the Constitution’s Article IX, Section 9. With the constitutional amendments of November 5, 1974, all evidence of the 1862 Morrill Act’s provisions related to the intellectual direction of the University had been removed from Article IX, Section 9.³⁴

32. —. 1868b. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>) Section 20.

33. —. 1879c. 1879 California State Constitution: Article IX, Section 9 (including amendments). (March 10, 2011, <http://content.cdlib.org/view?docId=hb409nb2hr&brand=calisphere>)

34. —. 1879b. *1879 California State Constitution: Article IX (including amendments)*. Taken from “A complete copy of the new Constitution, showing wherein it differs from the old Constitution—with notes.” Bancroft Library, University of California Berkeley. University of California History Digital Archives. (February 7, 2012, <http://content.cdlib.org/view?docId=>

In 1974, changes to the membership of the Regents were presented to the voters in Proposition 4: “Regents, University of California. Legislative Constitutional Amendment.”³⁵ The *California Voters Pamphlet for the General Election of November 5, 1974* describes Proposition 4 as having been “designed to preserve the essential independence of the University of California.”³⁶ The description of the membership of the Regents was not the only part of Article IX, Section 9 that was amended with the passage of Proposition 4. The Voter Pamphlet illustrated other proposed changes to Section 9, including the following additions and deletions that removed the 1862 Morrill Act’s intellectual direction requirements from the Constitution:

*“The Regents shall receive all moneys funds derived from the sale of public lands donated to this state by pursuant to the act of Congress approved of July 2, 1862, (and the severall any subsequent acts amendatory thereof), shall be invested as provided by said acts of Congress and the income from said moneys shall be inviolably appropriated to the endowment, support and maintenance of at least one college of agriculture; where the leading object shall be (without excluding other scientific and classical studies; and including military tactics) to teach such branches of learning as are related to scientific and practical agriculture and mechanic arts; in accordance with the requirements and conditions of said acts of Congress; and the Legislature shall provide that if, through neglect, misappropriation, or any other contingency, any portion of the funds so set apart shall be diminished or lost; the state shall replace such portion so lost or misappropriated; so that the principal thereof shall remain forever undiminished .”*³⁷

The state continues to recognize the Morrill Act as a source of fi-

hb409nb2hr&brand=calisphere&doc.view=entire_text)

See also: —. 1974. 1974 California Constitutional Amendment: Section 9 of Article IX. Resolution Chapter 85. Senate Constitutional Amendment No. 45 [SCA 45]—A resolution to propose to the people of the State of California an amendment to the Constitution of the state, by amending subdivision (a) of, and by amending and renumbering subdivision (b) of, Section 9 of Article IX thereof, relating to the University of California. [Filed with Secretary of State June 28, 1974.]. (March 16, 2012, <http://content.cdlib.org/view?docId=hb867nb53j&brand=calisphere>)

35. Office of the Secretary of State, State of California, Edmund G. Brown Jr., Secretary of State, A. Alan Post, Legislative Analyst. 1974. “Proposition 4: Regents, University of California. Legislative Constitutional Amendment”. Pages 16-18. *California Voters Pamphlet, General Election, November 5, 1974*. Sacramento, California: Office of the Secretary of State.

36. *Ibid.* SCA 45 (Senate Constitutional Amendment No. 45)

37. *Ibid.* p. 17.

nancial support for the University of California, but the Act's requirements in regard to the University's intellectual structure are no longer included in the Constitution's description of the University. In the twenty-first century, the reference to the 1862 Morrill Act that remains in Article IX, Section 9 of the Constitution of California includes no trace of the 1862 Act's provisions that had once controlled the University's intellectual direction: "the Regents shall receive all funds derived from the sale of lands pursuant to the act of Congress of July 2, 1862, and any subsequent acts amendatory thereof." ³⁸

The California Legislature and Financial Support for the University of California

During the late nineteenth century, the California Legislature approved many separate acts to provide public financial support to the University to supplement funding provided under the terms of the Morrill Act of 1862. From its establishment in 1868, through 1887, all state-based financial support for the University of California came from revenue derived from the University's endowment funds, biennial appropriations from the legislature, student fees, and donor gifts. ³⁹ In 1868, the Legislature provided funds to the University from the sale of swamplands. ⁴⁰ In 1870 the state legislature approved *An Act for the endowment of the University of California* that provided funding derived from the sale of state salt marsh and tidelands around the San Francisco Bay. ⁴¹

38. State of California. 1879c. 1879 California State Constitution: Article IX, Section 9 (including amendments). (March 10, 2011 <http://content.cdlib.org/view?docId=hb409nb2hr&brand=calisphere>)

39. Fankhauser, W. C. 1913. "A Financial History of California: Public Revenues, Debts, and Expenditures" in Miller A. C., ed. *University of California Publications in Economics*. Volume 3, No. 2, pp. 101-408. November 13, 1913. Berkeley: University of California Press. p. 396.

40. Jones, W. C. 1895. *Illustrated History of The University of California*. San Francisco: Frank H. Dukessmith. p. 298.

41. Parker, C. H. 1871. *The General Laws of the State of California, From 1864 to 1871 Inclusive, Being a Compilation of All Acts of a General Nature... Volume III, Being a Supplement to Hittel's General Laws*. San Francisco: A. L. Bancroft and Company. p. 462. Section 1 of that Act states: "The treasurer of State shall place to the credit of the university fund so much of any moneys that may be received by him from the net proceeds of sale of any salt marsh and tide lands lying in and around the bay of San Francisco, belonging to the State of California, as, being invested in the bonds of said State, or of the

The University's endowments were sufficient to meet the University's operating expenses only from 1876 through 1878.⁴² It had become obvious that funding for the University was inadequate, and that it was inappropriate for the University to engage in constant appeals to the Legislature for financial support. To address this situation, the Legislature passed the *Vrooman Act of February 14, 1887*. This statute provided for an annual tax of one cent for every \$100 of assessed value on taxable properties in the state for the support of the University. The money collected was deposited into a newly created "State University Fund" for the use and support of the University of California.⁴³

In 1878, to simplify and consolidate all of the university's endow-

United States, shall yield an annual income of fifty thousand dollars (\$50,000)." See also: Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. pp. 46-47.

Note: In 2003, the Federal and State government acquired 15,100 acres of the salt ponds in the South Bay from Cargill salt company and began planning a federally-funded restoration project. The Congressionally-authorized South San Francisco Bay Shoreline Study to identify and recommend one or more projects for flood control, ecosystem restoration, and public access, is being performed by the US Army Corps of Engineers and other sponsors, including the Santa Clara Valley Water District, the California State Coastal Conservancy, and the U.S. Fish and Wildlife Service. See: San Francisco Estuary Institute. 2011. South San Francisco Bay Shoreline Study. (April 10, 2011, <http://www.southbayshoreline.org/faq.html>)

42. Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. p. 112.

43. Jones, W. C. 1895. *Illustrated History of The University of California*. San Francisco: Frank H. Dukessmith. Pages 138, 300-301.

Fankhauser, W. C. 1913. "A Financial History of California: Public Revenues, Debts, and Expenditures" in Miller A. C., ed. *University of California Publications in Economics*. Volume 3, No. 2, pp. 101-408. November 13, 1913. Berkeley: University of California Press. pp. 396-397. The 1887 one cent per one hundred dollars assessed value ad valorem tax rate on property was raised in 1897 to two cents, and in 1909 to three cents. Fankhauser writes: [p. 396] "An act of April 25, 1911 passed because of the change in the state revenue system, directs the state treasurer to transfer for the sixty-third fiscal year (1911-1912) from the general fund to the state university fund, an amount equal to the receipts under the three-cent tax for 1910-11, plus an amount equivalent to 7 per cent of those receipts. The same [p. 397] statute provides that for the sixty-fourth, sixty-fifth and sixty-sixth fiscal years, the amounts transferred from the general to the state university fund are to be 7 per cent in excess of the amounts transferred for the immediate preceding fiscal year. In addition to the ad valorem tax, the state, by an act of 1893, has guaranteed the annual payment of \$49,845, this being the interest of the bonds of 1873, held in trust by the state treasurer for the benefit of the university, and since 1901 has appropriated annually \$100,000 for the support and maintenance of the University of California."

See also: Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. pp. 112-114.

ment accounts, an act was passed by the California Legislature to create the “Consolidated Perpetual Endowment Fund of the University of California.”⁴⁴ The 1878 Act, which mingled the University’s Morrill Act endowment funds with the University’s other endowment funds, states:

“Section 1: That the entire principal sums which have been or may hereafter be realized from the several sources of Income and Endowment Funds of the University of California, to wit, the principal sum derived from sale of lands granted to the State of California by Act of Congress, approved July 2d, 1862, and amendments thereto, and the principal sum derived from the sale of the seventy-two (72) sections of land granted to the State of California for the use of a Seminary of Learning, by Act of Congress, approved March 3d, 1853, and the principal sum derived from the sale of the ten sections of land granted to the State of California for public buildings by said Act of Congress, approved March 3d, 1853, and the principal sum which the Treasurer of the State of California was directed, by Act of the Legislature, approved April 2d, 1870, to place to the credit of the University Fund, and which, being invested in the bonds of the State or of the United States, should yield and annual income of \$50,000, and the principal sum now remaining on hand derived from the sale of real estate in Oakland, Alameda County, and State of California, known as the ‘Brayton Property,’ shall be from time to time, as the same is realized, invested in stocks of the United States or of the State, or other safe stocks or bonds, yielding not less than five (5) per centum upon the par value of said stocks and bonds, and the money so invested shall constitute a perpetual fund, to be known and designated as the ‘Consolidated Perpetual Fund of the University of California,’ the capital of which shall remain forever undiminished; provided, that any moneys realized from said sources of Income or Endowment Funds, or either of them, which have been heretofore invested according to law, may remain so invested; and it is further provided, that all such stocks and bonds as aforesaid shall be deposited in the State treasury to the credit of such fund, and shall be kept separate and apart from all other state funds by the State Treasurer, who shall pay over from time to time all interest, profits, income, or revenue arising from such stocks or bonds to the Treasurer of said University upon demand or order of the Regents of the University. Section 2: That all interest, profits, or revenue arising from or growing out of the said ‘Consolidated Permanent Endowment Fund of the University of California,’ shall be placed in the General Fund of the University, and subject to disbursement to meet the current annual expenses of

44. The Regents of the University of California. 1879. *Biennial Report of the Regents of the University of California, for the years 1877-9*. Sacramento: State Printing Office. pp. 79-80. “An Act to consolidate and perpetuate the various funds and endowments for the maintenance of the institution, and making the Treasurer of the State the authorized and responsible custodian thereof, was ...passed and ‘approved March 19th, 1878.’ ”

the University of California.”⁴⁵

In regard to the consolidation of the University’s endowment funds, the Morrill Act of 1862 required the proceeds derived from the sale of federal land granted to the state to be “applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever.”⁴⁶ In 1878, the California Constitution’s Article IX, Section 9 included a reference to the Morrill Act’s curricular requirements, so the blending of the Morrill Act endowment funds with the University’s other endowments might not have raised questions in relation to the Act’s restrictions on the use of the endowment revenues. However, with the 1974 amendments, the California Constitution no longer included references to the intellectual direction included in the Organic Act of 1868 and the 1862 Morrill Act. If the uses and purposes of the University have expanded beyond those stated in the Morrill Act, it would now be impracticable, or impossible, to apply Morrill Act funds only to those uses and purposes prescribed by the Act. This raises questions about the University’s compliance with the terms of the Morrill Act. Those purposes to which the Morrill Act endowment can be applied are expressed in part as intellectual direction, with an emphasis on the institution’s “leading object”:

“...to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life.”⁴⁷

Article IX, Section 9 of the Constitution of California defines the Legislature’s role in the governance of the University. This limited role might be interpreted as a safeguard for the 1862 Morrill Act’s provi-

45. *Ibid.* pp. 79-80.

46. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

47. *ibid.*

sions, which explicitly link intellectual direction and funding. The California Constitution gives the Legislature authority over the Regents to ensure compliance with the terms of the University's endowments, which would include the Morrill Act endowment. Given that the Morrill Act links funding with intellectual direction, this authority would likely require the Legislature to treat the 1862 Act's intellectual direction as criteria for evaluating such compliance. The California Constitution states:

SEC. 9. (a) "The University of California shall constitute a public trust, to be administered by the existing corporation known as 'The Regents of the University of California,' with full powers of organization and government, subject only to such legislative control as may be necessary to insure the security of its funds and compliance with the terms of the endowments of the university and such competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services." ⁴⁸

In relation to the Legislature's role in the funding and governance of the University in the twenty-first century, the Legislative Analyst's Office (LAO) of the State of California issued the following statement in an informational handout: "...courts have held that the Legislature has discretion over UC operations through such means as the appropriation of state funds to the university."⁴⁹ When questioned, the LAO's Director of Higher Education said he was unable to provide court citations to support the assertion; but, reiterating the point made in the handout, he said, "The Legislature has the ability to influence university actions through its appropriation powers." He also said "there is no specific level of funding that the Legislature is obligated to provide to the university."⁵⁰ In relation to the University of California's intellectu-

48. State of California. 1879a. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011, http://www.leginfo.ca.gov/.const/.article_9)

49. California Legislative Analyst's Office. 2009. *Higher Education: Answers to Frequently Asked Questions*. "What Role Does the State Play in Public Higher Education?" Issue 7: (Updated) December 2009. (May 8, 2011, http://www.lao.ca.gov/sections/higher_ed/FAQs/Higher_Education_Issue_07.pdf)

50. Boilard, S. 2011. Email correspondence between Legislative Analyst's Office of the State of California and Renée Flower. Subject: RE: Question re: the Legislature and UC operations. April 18, 2011, 8:31:34 AM PDT. From: Steve D. Boilard, Director of Higher Education, Legislative Analyst's Office. <steve.boilard@lao.ca.gov>.

al structure and funding, the LAO's statements raise serious questions regarding the boundaries of legislative powers over the university, and the interpretation of the Organic Act and the state's constitution in relation to the Morrill Act of 1862. In particular, is the Legislature obligated to provide a level of funding to the University adequate to ensure compliance with the intellectual direction provisions of the Morrill Act of 1862?

The University of California's Revenue Sources in the Twenty-first Century

In the twenty-first century, a wide range of revenue sources support the University of California's activities. These sources include the following: State General Funds; University General Funds; student fees; revenues from University medical centers and other self-supporting enterprises; contracts and grants funded by the state and federal government; federal indirect cost reimbursement; private gifts, contracts, and grants; and endowment earnings. The University's "Core Funds," which provide support for instruction, research, public service, and the administrative services that support these core activities, are comprised of State General Funds, University of California General Funds, and student fees. Project-based funding for defined research programs is received from public and private sources and based on competitive peer review. Research funding from state and federal government agencies is project-based.

Nearly all of the University's sources of revenue, except funding from the State General Fund, are restricted to specific uses. State support for the University fluctuates with state's economy, but the University's share of total State General Funds has declined from more than 5 percent in 1980-81 to only 2.8 percent in 2011-12.⁵¹ Funds from this source are mostly undesignated for any particular purposes and provide support for the University's core mission of instruction, research, and public service.⁵²

51. University of California Office of the President. 2012b. *University of California 2012-13 Budget for Current Operations: Budget Summary*. (February 27, 2012, <http://budget.ucop.edu/rbudget/201213/2012-13-budget.pdf>) p. 12.

52. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. *University of California 2011-12 Budget*

The University's budget also includes appropriations from State special funds, a few of which we cover in more detail later in this chapter. These special funds are restricted to designated uses and include the following: the California State Lottery Education Fund (support for instructional activities); the Cigarette and Tobacco Products Surtax Fund (to fund the Tobacco-Related Disease Research Program); the Breast Cancer Research Program; the Health Care Benefits Fund (for analysis of health care-related legislation); the California Cancer Research Fund and the California Ovarian Cancer Research Fund; and the Public Transportation Account (for the support of UC's Institute of Transportation Studies).⁵³

University of California General Funds are unrestricted and support the University's core mission activities. These funds include nonresident tuition, fees for application for admission, a portion of overhead on federal and state contracts and grants, a portion of patent royalty income, and interest on UC General Fund balances. Nonresident tuition and indirect cost recovery on federal contracts and grants are the largest sources of UC General Funds.⁵⁴

University of California Student Fees include Tuition (formerly the Educational Fee), a student services fee, and the professional school fee (Professional Degree Supplemental Tuition). Tuition revenues support instruction, the University Library, and the operation and maintenance of the University's physical structure. Student Services Fee revenue provides funding for student services, extracurricular programs and activities, as well as capital improvements associated with student life. The professional school fee, which is in addition to Tuition and the Student Services Fee, provides funding for costs associated with the University's professional schools and supports faculty salaries, instructional support, and student financial support and services. UC's professional degree programs include law, business, international relations, public policy, medicine, veterinary medicine, optometry, nursing, pharmacy, and public health.⁵⁵

for *Current Operations: Budget Detail*. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) p. 57.

53. *Ibid.* p. 15.

54. *Ibid.* p. 10.

55. *Ibid.* pp. 99-113.

Both the Organic Act of 1868 and *A Master Plan for Higher Education in California 1960-1975* affirm the position that the State would provide support at a level that would enable the University to provide access without tuition charges. The Organic Act states: “as soon as the income of the University shall permit, admission and tuition shall be free to all residents of the State.”⁵⁶ Three months after the University opened its doors, the Regents abolished tuition for resident students.⁵⁷ The *Master Plan* refers to “the long established principle that state colleges and the University of California shall be tuition free to all residents of the state.”⁵⁸ The *University of California Register* for the academic year 1871-72 gives estimates for student expenses in that era, including board and lodging, books and stationery, and laundry, and further states: “Tuition: All instruction in the undergraduate departments of the University is FREE” (emphasis in original).⁵⁹ In the *1874-75 Register of the University of California*, even greater emphasis is placed on the absence of tuition fees with the statement, “Tuition in all departments of the University, except the Medical College, IS ABSOLUTELY FREE” (emphasis in original).⁶⁰ In contrast to the University of California’s first decade, for the academic year 2011-12, the

56. State of California. 1868b. *An Act to Create and Organize the University of California* (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>)

57. University of California Office of the President. 2010. The Regents of the University of California. Committee on Educational Policy Committee on Finance. Agenda Item J1. “For Meeting of November 17, 2010. Amendment of Regents Policy 3101: The University of California Student Fee Policy and Regents Policy 3103: Policy on Fees for Selected Professional School Students”. (March 20, 2012, <http://www.universityofcalifornia.edu/regents/regmeet/nov10/j1.pdf>). Page 31. The Regents Meeting Agenda Report cites *The Centennial Record of the University of California*, Stadtman, Verne, Editor. Berkeley, California. University of California Planning Department, 1967. Page 2.

58. California Legislature. 1960b. *A Master Plan for Higher Education in California, 1960-1975. Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California*. (July 28, 2011 <http://www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf>) p. 14.

59. University of California. 1871. *Register of the University of California, 1871*. Oakland, California. pp. 33, 74.

60. University of California, The Regents of the University of California. 1875. *Register of the University of California, 1874-5: Literary and Scientific Departments*. Berkeley, California. p. 28.

systemwide tuition and fees for California-resident undergraduates at all UC campuses was \$12,192.⁶¹ Rising fees in the twentieth and twenty-first centuries is a direct result of inadequate state support. Over the twenty-year period from 1990-91 to 2011-12, state funding per student declined by 60 percent.⁶²

California residents attending the University of California were first charged student fees to cover the cost of student services in 1921. This Incidental Fee, which continued through the 1950s, was not directly related to the costs of instruction but was expanded over the decades to cover recreational programs, student health services, laboratory fees, and other services. In 1960, the *California Master Plan for Higher Education* recognized the need for fees to cover costs unrelated to instruction, and supported UC's tuition-free status. In 1968, the University's Incidental Fee was renamed the Registration Fee and its applications were expanded to include financial aid for students. The Educational Fee was established in 1970 to fund capital outlays, and later in that decade the Regents decided that Educational Fee income would be used exclusively for student financial aid programs. Up until 1990, the State provided support for the costs of the University's instructional programs; but in the early 1990s, in response to a decline of more than 50 percent in the per student state subsidy, student fees at UC began to rise dramatically.⁶³ Annual mandatory student fees for resident undergraduate students in 1991-92 increased over fees of the

61. —. 2012. "What Does UC Cost?". (January 12, 2012, <http://www.universityofcalifornia.edu/admissions/paying-for-uc/cost/index.html>) California-resident undergraduates at all UC campuses pay the same \$12,192 in systemwide tuition and fees for 2011-12, but that figure does not include additional campus-based fees. See also: University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. *University of California 2011-12 Budget for Current Operations: Budget Detail*. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>). UC Average Annual Student Fees for Resident Undergraduate Students for the academic years 1975-76 through 2011-12 are provided in "Display XV-6" on page 108.

62. University of California Office of the President. 2012b. University of California 2012-13 Budget for Current Operations: Budget Summary. (February 27, 2012, <http://budget.ucop.edu/rbudget/201213/2012-13-budget.pdf>) p. S-8.

63. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. *University of California 2011-12 Budget for Current Operations: Budget Detail*. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) p.99.

previous academic year by 40 percent.⁶⁴ From 1990-91 to 1999-00, mandatory annual student fees for resident undergraduate students increased from \$1624 to \$3429.⁶⁵ In 1990, The Regents approved a special fee for students of medicine and law, and in 1994 established professional school fees that are levied on top of the educational and registration fees. In 1994 it was also decided that the Educational Fee could be used to support the University's operating budget, including the costs of instruction. In 2010, the Registration Fee was renamed the Student Services Fee, and the name of the Educational Fee was changed to "Tuition."⁶⁶

Commenting on the rise in tuition fees at the nation's universities, Ronald G. Ehrenberg, Irving M. Ives Professor of Industrial and Labor Relations and Economics at Cornell University, director of the Cornell Higher Education Research Institute, and a member of the SUNY Board of Trustees, said, "There has been a shift from the belief that we as a nation benefit from higher education, to a belief that it's the people receiving the education who primarily benefit and so they should foot the bill."⁶⁷ We agree and add the following: if the federal and state governments choose not to subsidize the nation's public research universities and other public institutions of higher education, individuals with the interest and intellectual capacity to complete university programs and acquire critical knowledge and skills needed by the nation will

64. Ibid. Display XV-6: Average Annual Student Fees for Resident Undergraduate Students, p. 108.

65. Ibid. Display XV-6: Average Annual Student Fees for Resident Undergraduate Students, p. 108.

66. University of California Office of the President. 2011b. *The Facts: Systemwide Tuition and Fee Increases*. (February 16, 2012, http://www.universityofcalifornia.edu/news/factsheets/thefacts_fees_071411.pdf)

— . 2010. The Regents of the University of California. Committee on Educational Policy Committee on Finance. Agenda Item J1. "For Meeting of November 17, 2010. Amendment of Regents Policy 3101: The University of California Student Fee Policy and Regents Policy 3103: Policy on Fees for Selected Professional School Students". (March 20, 2012 <http://www.universityofcalifornia.edu/regents/regmeet/nov10/j1.pdf>). The Regents of the University of California. 2010. Regents Policy 3101: The University of California Student Tuition and Fee Policy. (February 29, 2012, <http://www.universityofcalifornia.edu/regents/policies/3101.html>)

67. Rampell, C. 2012. "Where the Jobs Are, the Training May Not Be". *The New York Times*. March 1, 2012. (March 2, 2012; <http://www.nytimes.com/2012/03/02/business/dealbook/state-cutbacks-curb-training-in-jobs-critical-to-economy.html>)

carry the associated financial burden. Under such conditions, the larger society free rides on those individuals who pursue a university education.

The University's self-supporting service and auxiliary enterprises include academic medical centers and clinics, faculty and student housing, dining services, parking facilities, bookstores, museums, theaters, conferences, scholarly publishing, and University Extension, which offers continuing education programs in medicine, law, and other professional disciplines. Revenue from these activities is restricted to the costs of goods and services provided. Auxiliary enterprises are self-supporting and receive no state funding.⁶⁸

In addition to State General Fund support, California state agencies provide project-based research contracts and grants. These agencies include, for example, the California Air Resources Board (ARB) and the California Energy Commission (CEC), both of which are part of the California Environmental Protection Agency. The California Legislature established the ARB in 1967 under the terms of the Mulford-Carrell Act, and created its research program in 1971 as part of the ARB's air pollution control program. The ARB has primary responsibility for protecting air quality in California and sponsors research related to air pollution to provide scientific and technical information needed for the development and support of public policy decisions.⁶⁹ The ARB is required by law to work with the University of California. The Board's research program, and specific projects, is described in its Annual Research Plan.⁷⁰ The ARB works with other California agencies, including the California Energy Commission (CEC) that was created by the

68. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. University of California 2011-12 Budget for Current Operations: Budget Detail. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) pp.13-14.

69. California Environmental Protection Agency - Air Resources Board. 2010. *A brief history of the Air Resources Board*. (March 13, 2012 <http://www.arb.ca.gov/knowzone/history.htm>) The ARB was created from the merging of the California Motor Vehicle Pollution Control Board and the Bureau of Air Sanitation.

— . 2012a. ARB Research Activities. (March 13, 2012, <http://www.arb.ca.gov/research/research.htm>)

70. — . 2011. 2011 Annual Research Plan (March 13, 2012, <http://www.arb.ca.gov/research/apr/plan/fy11-12/2011researchplan.pdf>)

— . 2012b. Research Concept Solicitation, Fiscal Year 2012-2013. (March 17, 2012, <http://www.arb.ca.gov/research/apr/plan/concepts/concepts12-13.htm>)

California Legislature in 1974 with the passage of the *Warren-Alquist State Energy Resources Conservation and Development Act*.⁷¹ The CEC's responsibilities include the support of public interest energy research to advance energy science and technology.⁷² The ARB and CEC collaborate in research to assess the role of land-use planning in the reduction of energy consumption.⁷³ Research funding provided by the ARB, the CEC, and other California state agencies is project-based.

Federal government funds provide support to the University through research contracts and grants and student financial aid. Contracts and grants are awarded to individual faculty to support research projects, and are not part of the University's operating budget.⁷⁴ Federally funded health care programs such as Medicare provide funding in association with patient care in the University's medical clinics. University researchers receive support from nearly all federal agencies, including the National Institutes of Health, the National Science Foundation (NSF), the Department of Defense, the National Aeronautics and Space Administration, and the Department of Energy. Research funding from these sources, like that from the state agencies, is competitive and project-based. The NSF, which does not operate its own research labs, determines what research to fund and receives more than 40,000 research proposals annually. Only about 11,000 of the proposals receive funding.⁷⁵

Federal contracts and grants are dependent on the University's research facilities and administration. The University's Contracts and Grants Manual states: "For all tests and investigations made for agen-

71. California Energy Commission. 2012a. "Frequently Asked Questions About the California Energy Commission". (March 14, 2012, <http://www.energy.ca.gov/commission/faqs.html>)

72. —. 2012b. "Welcome to the website of the California Energy Commission!". (March 14, 2012, <http://www.energy.ca.gov/commission/index.html>)

73. California Environmental Protection Agency - Air Resources Board. 2011. 2011 Annual Research Plan (March 13, 2012, <http://www.arb.ca.gov/research/apr/plan/fy11-12/2011researchplan.pdf>). pp. 19-20. See also: Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375).

74. University of California, Santa Cruz, Campus Provost and Executive Vice Chancellor. 2011. *UCSC Budget Handbook: An Overview of Funds Supporting UCSC*. (March 1, 2012, <http://planning.ucsc.edu/budget/Reports/BudgetHandbook.pdf>) p. 22.

75. National Science Foundation. 2012. "About Funding". (March 12, 2012, <http://www.nsf.gov/funding/aboutfunding.jsp>)

cies outside the University, a charge shall be made sufficient to cover all expenses, both direct and indirect ... Costs include all direct costs, which are defined as costs that can be readily and specifically identified with benefiting a particular program or project, and all indirect costs, which are defined as costs that are incurred for common or joint objectives.”⁷⁶ The federal government reimburses the University for indirect costs of facilities and administration related to research programs. A portion of federal indirect cost reimbursement accrues to University grant administration in academic departments and research units. This source of funding is known as “off the top funds,” and must be used only for those costs that are related to the administration of federal contracts and grants.⁷⁷ The remaining amount is split between UC General Funds and the University Opportunity Fund, which is used for high priority research and instructional needs.⁷⁸

Private gifts and grants from alumni, private foundations, corporations, and non-profit entities provide support for instruction, research, and improvements to campus infrastructure. Since 1990, the University has seen large increases in private gifts from these sources, but in the past few years 98 percent of new gifts are restricted to uses designated by the donor.⁷⁹ The University’s Development Manual defines funds as a gift when “the donor does not impose contractual require-

76. University of California Office of the President, Research Administration Office. 1996. *Contract and Grant Manual*. Chapter 8: Indirect Cost. (March 10, 2012, <http://www.ucop.edu/raohome/cgmanual/chap08.html>) Section 100: General Policy.

77. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. *University of California 2011-12 Budget for Current Operations: Budget Detail*. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) p. 14.

University of California Office of the President, Research Administration Office. 1996. *Contract and Grant Manual*. Chapter 8: Indirect Cost. (March 10, 2012, <http://www.ucop.edu/raohome/cgmanual/chap08.html>). Section 8-812 “Off-the-Top” Overhead Fund.

78. —. 1996. *Contract and Grant Manual*. Chapter 8: Indirect Cost. (March 10, 2012 <http://www.ucop.edu/raohome/cgmanual/chap08.html>) Section 813: University Opportunity Fund. The University Opportunity Fund is “allocated to the campuses based on the net indirect cost recovery of each campus.”

79. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. *University of California 2011-12 Budget for Current Operations: Budget Detail*. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) pp. 16-17.

ments.”⁸⁰ In this context, the public lands donated to the states under the provisions of the 1862 Morrill Act were not a gift: the Act imposed contractual requirements. Similarly, private funds are classified as a grant to the University if the following characteristics exist:

“...there is provision for audits by or on behalf of the grantor; the grantor is entitled to receive some consideration such as a detailed technical report of research results or a report of expenditures; testing or evaluating of proprietary products is involved; the research is directed to satisfying specific grantor requirements (e.g., terms and conditions stating a precise scope of work to be done rather than a general area of research); a specified period of performance is prescribed or termination is at the discretion of the grantor; funds that are unexpended at end of period shall be returned to the grantor; patent or licensing rights are requested by the grantor.”⁸¹

From its founding in 1868, the University of California has been supported by private gifts. The Organic Act of 1868 recognized donor-imposed restrictions on private gifts to the University:

“Special Endowments. All such contributions to the endowment, or other funds, as may be derived from appropriations by the State, from the United States, or from public or private bounty. The entire income of said funds shall be placed at the disposition of the Board of Regents for the support of the University ... and provided, moreover, that all means derivable from either public or private bounty shall be exclusively devoted to the specific objects for which they shall have been designed by the grantor. The Board of Regents may appoint competent persons to solicit and collect private contributions for the endowment of the University, and pay them for their services in that behalf, out of the funds so obtained by them, such reasonable compensation as the said Board may prescribe.”⁸²

Today, each University of California campus has a campus foundation, governed by its respective board of trustees. Campus foundations are defined as nonprofit, public benefit corporations “organized for the purpose of encouraging voluntary private gifts, trusts, and bequests for

80. University of California Office of the President. 1992. *Development Policy Manual*. (May 15, 2012, <http://www.ucop.edu/ucophome/policies/devpol/>) “Chapter III, Gift Administration Policies, D. Is it a Gift or a Grant?”

81. *Ibid.* “Chapter III, Gift Administration Policies, D. Is it a Gift or a Grant?”

82. State of California. 1868b. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session, 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>)

the benefit of the campus,” and the Chancellor of the campus is an *ex officio* voting member of the foundation’s governing board.⁸³ Regents policy states that a campus foundation “must receive official and continued recognition from a Chancellor,”⁸⁴ and defines the purpose of such a foundation:

“Campus Foundations: Each campus may have a single Campus Foundation, bearing the name of the campus, that is organized and operated for the purpose of fostering private giving, managing gift and endowment funds, and providing other support for the benefit of the campus. The Campus Foundation is the only entity permitted by The Regents of the University of California to hold funds for investment purposes for the benefit of the campus it supports. Each Campus Foundation shall be organized and operated as a separately incorporated, tax-exempt entity under relevant provisions of State and federal tax law, and all operations shall be in accordance with applicable University policies, guidelines, and procedures.”⁸⁵

The University’s Development Policy Manual, maintained by the Office of the President, provides guidance on the solicitation and acceptance of gifts. The Manual includes a brief history of the establishment of the University’s Systemwide Gifts and Endowments Office, which is now called the Department of Institutional Advancement and is situated within the Office of the President:

“In 1957, The Regents agreed in principle to embark upon ‘a positive program for encouraging gifts to the University.’ In response, a decentralized program was developed and implemented that called for each campus to establish its own gift program, while a Universitywide office would provide: a) development of general, overall fund-raising policies; and b) ‘proper coordination of fund-raising activities so as not to alienate prospects and private institutions, or exhaust the good name of the University.’ This plan led to the creation of the Systemwide Gifts and Endowments Office in 1959.”⁸⁶

83. University of California Office of the President. 2004. Administrative Guidelines for Campus Foundations. (May 15, 2012, <http://www.ucop.edu/ucophome/coordrev/policy/2-12-04foundation-guidelines.html>)

84. The Regents of the University of California. 2005a. Regents Policy 5203: Policy on Support Groups, Campus Foundations, and Alumni Associations. (May 14, 2012, <http://www.universityofcalifornia.edu/regents/policies/5203.html>)

85. *Ibid.*

86. University of California Office of the President. 1992. *Development Policy Manual*. (May 15, 2012 <http://www.ucop.edu/ucophome/policies/devpol/>)

The primary mission of the Trustees of the University of California, Berkeley Foundation is “to assist the University in securing gifts, trusts, and bequests to nourish programs throughout the campus,”⁸⁷ but their broader mission reaches beyond the role of fundraising to include an advisory role. The UC Berkeley Foundation provides this statement:

“The Board of Trustees serves as the primary advocacy group to the Chancellor and provides leadership for a united effort to ensure Cal’s continuing stature as one of the world’s preeminent institutions of higher learning. As such, it serves not only as the University’s fundraising arm, but also as a conduit for public opinion, an advisory council, and a steady source of assistance to Berkeley’s Chancellor and the campus as a whole.”⁸⁸

About 95 percent of the University of California’s overall endowment, including the Regents General Endowment Pool, is restricted to donor’s purposes;⁸⁹ therefore, the UC Berkeley Foundation’s statement on its advisory role raises a question in relation to its appropriate level of influence over the University’s intellectual direction. The statement implies that the UC Berkeley Foundation provides a direct channel of communication between private donors and the University’s administration, to the extent that donors can assume a role in directing the University’s research and instructional programs.

The University’s core governance documents do not recognize campus foundations as sources of intellectual direction for the University; but the private donor influences and shapes the University’s intellec-

See also: —. 2012a. Department of Institutional Advancement. (May 15, 2012, <http://www.ucop.edu/instdv/>)

87. University of California, Berkeley Foundation, The Regents of the University of California. 2012. “Welcome” “History and Mission”. (March 11, 2012, <https://foundation.berkeley.edu/> and <https://foundation.berkeley.edu/mission>)

88. University of California, Berkeley Foundation. 2012. “A Historical Perspective on Cal’s Public-Private Partnership”. (March 11, 2012, <https://foundation.berkeley.edu/mission>). In 2009, the UC Berkeley Foundation established the Berkeley Endowment Management Company to manage the investment of UC Berkeley’s endowment funds. See: The Berkeley Endowment Management Company. 2012. “About Us”. (March 11, 2012, <http://www.berkeleyendowment.org/about.html>)

89. University of California Office of the President. 2011g. *2011-12 Budget for Current Operations: Budget Detail*. (February 27, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) pp. 16-17.

tual direction, and the pursuit of new knowledge, through restrictions on gifts. Continuing reductions in public unrestricted funds, combined with an increase in restricted private gifts, interferes with the open pursuit of knowledge and contributes to the deterioration of the public research university's control over its intellectual direction.

The University of California General Endowment Pool (GEP), "an investment pool in which a large number of individual endowments participate in order to benefit from diversification and economies of scale,"⁹⁰ was established in 1933 and unitized in 1958. The GEP, comprised of over 4,909 individual endowments,⁹¹ is The Regents' primary investment vehicle for endowed gift funds. It is a "portfolio of equities and fixed-income securities in which all Regental endowment funds participate."⁹² It is possible that that University's General Endowment Pool includes funds derived from the sale of 150,000 acres of federal lands granted to the state under the terms of the Morrill Act of 1862; however, we were unable to confirm the current disposition of the University's Morrill Act endowment funds.⁹³ Information about the University's Morrill Act endowment funds is not found in either the *University of California Annual Endowment Report*, which provides information on the University's assets and investment policies, or the University of California's *Annual Financial Report* for the year ended June 30, 2011.⁹⁴

90. The Regents of the University of California. 2011. *University of California Annual Financial Report: 2010/11*. (March 4, 2012, <http://www.universityofcalifornia.edu/regents/regmeet/nov11/a5attach3.pdf>)

91. Mercer Investment Consulting Inc, The Regents of the University of California. 2011. *Annual Endowment Report: Fiscal Year Ended June 30, 2011*. (March 17, 2012, <http://www.universityofcalifornia.edu/regents/regmeet/dec11/i7attach.pdf>) p. 68.

92. The Regents of the University of California, Office of the Treasurer, University of California Office of the President. 2010. *University of California Annual Endowment Report. Fiscal Year Ended June 30, 2010*. <http://www.ucop.edu/treasurer/foundation/foundation.pdf> (Accessed: May 20, 2011); University of California Office of the President. The Office of the Treasurer of the Regents state on its webpage: "These investments provide substantial benefits to ... support the university's mission of education, research, and public service." But, there is no mention made here of the Morrill Act endowment. See: <http://www.ucop.edu/treasurer/> (Accessed: May 20, 2011).

93. A telephone call to the University of California Office of the Treasurer on August 17, 2011, yielded no information on the present disposition of the Morrill Act endowment funds.

94. The Regents of the University of California, Office of the Treasurer, University of California Office of the President. 2010. *University of California Annual Endowment Report*.

Private contracts to perform research, public service, and other activities are another source of revenue. For example, the University enters into contracts with pharmaceutical and health care organizations to conduct clinical drug trial research. Revenue from these and other private contracts is restricted to uses defined by the terms of the contract.⁹⁵

THE CALIFORNIA LEGISLATURE: HIGHER EDUCATION PLANNING AND COORDINATION

In the twentieth century, the California Legislature, often with the participation of the State Board of Education and the Regents of the University of California, was instrumental in the generation of several reports on higher education.⁹⁶ In 1931, under the authority of the California Legislature, the Governor engaged the services of The Carnegie Foundation for the Advancement of Teaching to perform “a survey of the present system, plan of organization, and conduct of public education of higher than high school grade in the State of California, make recommendations as to suitable future policy and plan of operation with relation thereto and present to him a written report of its survey with its recommendations.” The report, *State Higher Education in California: Report of the Carnegie Foundation for the Advancement of Teaching*, was submitted in 1932. It included several recommendations regarding the administrative structure of higher education in California, but did not include any references to the intellectual direc-

Fiscal Year Ended June 30, 2010. <http://www.ucop.edu/treasurer/foundation/foundation.pdf> (Accessed: May 20, 2011): University of California Office of the President. The Regents of the University of California. 2011. University of California Annual Financial Report: 2010/11. (March 4, 2012, <http://www.universityofcalifornia.edu/regents/regmeet/nov11/a5attach3.pdf>)

95. University of California Office of the President, Budget and Capital Resources, The Regents of the University of California. 2012. University of California 2011-12 Budget for Current Operations: Budget Detail. (February 28, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) p. 17.

96. See: Center for Studies in Higher Education, Bancroft Library, Institute for Governmental Studies at UC Berkeley, Douglass, J. A. 2010. *The History and Future of the California Master Plan for Higher Education*. (July 29, 2011, http://sunsite.berkeley.edu/uchistory/archives_exhibits/masterplan/index.html)

tion or funding provisions of the Morrill Acts of 1862 and 1890.⁹⁷

In 1946, the University of California and the State Board of Education established a “Liaison Committee” to improve relations between the UC system and the state colleges (California State University). With funding provided by the California Legislature, the Liaison Committee prepared a planning study titled *A Report of a Survey of the Needs of California in Higher Education*, which was submitted to the Legislature in 1948. This study, which does not mention the intellectual direction provisions included in the Morrill Acts of 1862 and 1890, recommended the following:

- The state colleges (California State University, or CSU) offer Masters programs,
- Doctoral degree programs be limited to the University of California,
- The creation of new CSU campuses in Los Angeles, Long Beach, and Sacramento,
- The establishment of a state grant program for needy students.⁹⁸

In 1953, prompted by increased demand for higher education and a proliferation of legislation proposing the establishment of new college and university campuses in legislator’s districts, UC officials and the State Board of Education proposed a study to review the 1948 planning study. The resulting 1955 report, *A Restudy of the Needs of California in Higher Education*, which briefly quotes the Morrill Act of 1862 only in the context of a broad overview of the history of higher education in the United States, said that enrollment at existing UC and state college campuses should be increased and the establishment of new campuses should be suspended until 1965. Neither UC nor the State Board of Education endorsed the report, and Legislators were unhappy to hear that their proposed campuses were not supported by the report’s conclusions.⁹⁹

97. Carnegie Foundation for the Advancement of Teaching. 1932. *State Higher Education in California: Report of the Carnegie Foundation for the Advancement of Teaching*. (July 29, 2011 <http://content.cdlib.org/ark:/13030/hb9r29p2g2/>)

98. Legislative Interim Committee on the Survey of Higher Education, Strayer, G. D. 1948. *A Report of a Survey of the Needs of California in Higher Education*. (July 29, 2011, <http://content.cdlib.org/ark:/13030/hb2p3004kd/>)

99. McConnell, T. R., Holy, T. C., Semans, H. H. 1955. *A Restudy of the Needs of California*

Faced with ad hoc legislation during the 1955 session of the Legislature that would reconfigure the state's system of higher education, and that threatened to overwhelm their administrative authority, The Regents and the State Board of Education asked for a new study that would consider the expansion of public higher education in terms of the needs of the entire state. The *Study of the Need for Additional Centers of Public Higher Education in California*, published in 1957, looked at enrollment demand, and included recommendations for new UC campus sites at Davis, Riverside, Santa Barbara, San Diego, and in the areas of Santa Cruz, Irvine and the Central Valley.¹⁰⁰ This report does not include any mention of the intellectual direction provisions of the Morrill Acts of 1862 and 1890.

In 1959, the California Legislature adopted *Assembly Concurrent Resolution No. 88*, which provided for the preparation of a new report on higher education. Assemblywoman Dorothy M. Donahoe (1911-1960), chair of the Assembly Education Committee, introduced the Resolution. The resulting report, titled *A Master Plan for Higher Education in California, 1960-1975*, was submitted to the Legislature on February 1, 1960.¹⁰¹ At a special session of the Legislature in April

in *Higher Education* (California State Department of Education). (July 29, 2011, <http://content.cdlib.org/ark:/13030/hb2n39n7ns/>). See also: Center for Studies in Higher Education, Bancroft Library, Institute for Governmental Studies at UC Berkeley, Douglass, J. A. 2010. *The History and Future of the California Master Plan for Higher Education*. (July 29, 2011, http://sunsite.berkeley.edu/uchistory/archives_exhibits/masterplan/index.html)

100. Liaison Committee of the State Board of Education and The Regents of the University of California, Holy, T. C., Semans, H. H. 1957. *Study of the Need for Additional Centers of Public Higher Education in California*. (July 29, 2011, <http://content.cdlib.org/ark:/13030/hb0h4n99sv/>) See also: Center for Studies in Higher Education, Bancroft Library, Institute for Governmental Studies at UC Berkeley, Douglass, J. A. 2010. *The History and Future of the California Master Plan for Higher Education*. (July 29, 2011, http://sunsite.berkeley.edu/uchistory/archives_exhibits/masterplan/index.html)

101. Smith, W., Bender, T., eds. 2008. *American Higher Education Transformed, 1940-2005: Documenting the National Discourse*. Baltimore: The Johns Hopkins University Press. pp. 97-100.

California Legislature. 1960b. *A Master Plan for Higher Education in California, 1960-1975. Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California*. (July 28, 2011, <http://www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf>)

See also: University of California Office of the President. 2011d. *The Donahoe Higher Education Act*. (August 3, 2011, <http://www.ucop.edu/acadinit/mastplan/donahoe.htm>). The California Legislature honored Dorothy Donahoe by renaming the Master Plan legislation

of that year, the *Donahoe Higher Education Act* was passed, which codified many of the Master Plan's recommendations.¹⁰² Neither the *Master Plan*, nor the *Donahoe Higher Education Act* includes explicit references to the Morrill Act of 1862. However, the Donahoe Act's identification of the University of California as the state's "primary state-supported academic agency for research"¹⁰³ can be read as an acknowledgement of the reporting requirement of Section 5 of the 1862 Morrill Act, which links "experiments" to the state's economy. Section 5 of the 1862 Morrill Act states:

"An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail...by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior."¹⁰⁴

Section 19 of the Organic Act of 1868 reflects the 1862 Morrill Act's reporting requirements and reference to experiments:

"At the close of each fiscal year the Regents, through their President, shall make a report in detail to the Governor, exhibiting the progress, condition and wants of each of the colleges embraced in the University, the course of study in each, the number of professors and students, the

the *Donahoe Higher Education Act* in her memory.

102. California Legislature. 1960a. An act to add Division 16.5 (commencing at Section 22500) to the Education Code, relating to higher education, and making an appropriation. (SB 33) "Section 22705: This division shall be known and may be cited as the Donahoe Higher Education Act." Approved by the Governor April 27, 1960. Statutes of California. 1960 First Extraordinary Session. Chapter 49. pp. 392-398. Sacramento. (August 4, 2011, http://www.ucop.edu/acadinit/mastplan/documents/donahoeactchapter49_sb33.pdf) Donahoe Higher Education Act (Chapter 1010, SB 33 [Miller]).

103. "The University of California shall be the primary state-supported academic agency for research." State of California. 2011f. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>)

104. United States Congress. 1862. Chapter CXXX. — "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) Section 5.

amount of receipts and disbursements, together with the nature, cost and results of all important investigations and experiments, and such other information as they may deem important; one printed copy of which shall be transmitted free, by their Secretary, to all colleges endowed under the provisions of the Congressional Act of July second, eighteen hundred and sixty-two, herein before referred to; also one printed copy to the Secretary of the Interior, as provided in said Act.”¹⁰⁵

The Master Plan recommended, and the Donahoe Act codified the differentiation of missions for the three segments of higher education in California: the California Community Colleges (formerly called junior colleges), the state college system (renamed the California State University in 1982), and the University of California, which the legislature designated “the primary state-supported academic agency for research.”¹⁰⁶ Current California Education Code defines the role of the University in terms of its intellectual structure, but does not mention the specific intellectual direction provided by the 1862 Morrill Act:

“The University of California may provide undergraduate and graduate instruction in the liberal arts and sciences and in the professions, including the teaching professions. It shall have exclusive jurisdiction in public higher education over instruction in the profession of law and over graduate instruction in the professions of medicine, dentistry, and veterinary medicine. It has the sole authority in public higher education to award the doctoral degree in all fields of learning, except that it may agree with the California State University to award joint doctoral degrees in selected fields. The University of California shall be the primary state-supported academic agency for research.”¹⁰⁷

105. State of California. 1868b. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>)

106. California Legislature. 1960b. *A Master Plan for Higher Education in California, 1960-1975. Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California*. (July 28, 2011, <http://www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf>) Master Plan, Appendix I—Legislative Actions. Senate Bill No. 33, Section 1. Division 16.5 is added to the Education Code to read: Division 16.5. Higher Education.

107. State of California. 2011f. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) Quoted text from: California Education Code Section 66010. (c).

The *Donahoe Higher Education Act* also codified the Master Plan's recommendation for the establishment of a higher education coordinating agency. The Coordinating Council for Higher Education, a statutory advisory body composed of representatives of the three segments of higher education and members appointed by the California Senate and the Governor, was established in 1960 on the State's adoption of the *Master Plan for Higher Education* and the passage of the Donahoe Act. In 1973, in response to a recommendation presented in the *Report of the Joint Committee on the Master Plan for Higher Education*, the Legislature disestablished the Coordinating Council, and replaced it with the California Postsecondary Education Commission (CPEC).¹⁰⁸ The CPEC had a majority of public members, and increased authority.¹⁰⁹ The sixteen members of the Commission included representatives from the California Community Colleges, the California State University, the University of California, the California State Board of Education, and the independent (privately-controlled) colleges and universities. Nine members of the Commission, appointed by the Office of the Governor, the Senate Rules Committee, and the Speaker of the Assembly, represented the general public. The Office of the Governor also appointed two student members. During its 37 years of operation, from 1974 through 2011,

“...the commission served as the state's independent planning and coordination agency for postsecondary education policy, responsible for analyses and recommendations to the Legislature and the Governor related to long-range planning for public postsecondary education and the state policy and programs involving independent and private post-

108. California Legislative Analyst's Office. 2003. *CPEC: A Review of Its Mission And Responsibilities*. (August 3, 2011, <http://www.cpec.ca.gov/CompleteReports/ExternalDocuments/LAORreport.pdf>) p. 2.

CPEC was created by Chapter 1187, Statutes of 1973 (AB 770, Vasconcellos). California Education Code Section 66900-66906.

California Legislature. 1973. 1973 Amendment to the California State Education Code: Chapter 1187. Source: Statutes and Amendments to the Codes. 1973, ch. 1187, §§ 1-19. (August 3, 2011, <http://content.cdlib.org/view?docId=hb3q2nb1cg>)

109. California Legislative Analyst's Office, Taylor, M. 2010. *The Master Plan at 50: Greater Than the Sum of Its Parts—Coordinating Higher Education in California. An LAO Report*. (July 9, 2011, http://www.lao.ca.gov/reports/2010/edu/ed_coordination/ed_coordination_012810.pdf). p. 12.

secondary education sectors.”¹¹⁰

CPEC’s responsibilities included review processes that had the potential to shape the University’s intellectual structure. CPEC’s review responsibilities included the following:

- Evaluate budget requests of State-supported colleges and universities
- Review proposals from public colleges and universities for new schools
- Review proposals from public colleges and universities for new degree programs:
 - All doctoral program
 - Masters programs in the following disciplines were subject to review by CPEC: agriculture, architecture, biological sciences, business/management, education, engineering, health professions, information science/informatics, interdisciplinary programs, mathematics, physical sciences, professional studies, psychology.
 - Masters programs in the humanities were not subject to formal review.¹¹¹

CPEC’s budget, vetoed by the Governor, was discontinued in the 2011-12 California State Budget.¹¹² In a telephone conversation with

110. State of California. 2011c. California Education Code Section 66900-66906. California Postsecondary Education Commission. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66900-66906>)

111. California Postsecondary Education Commission. 2011b. 2011 *Annual Report: Program Review. CPEC Report 11-07*. (August 3, 2011, <http://www.cpec.ca.gov/completereports/2011reports/11-07.pdf>) p. 2.

112. State of California, Department of Finance. 2011a. California State Budget 2011-12. June 30: Summary / Veto Message Package. Edmund G. Brown, Jr., Governor of California. (August 3, 2011, http://www.dof.ca.gov/budget/historical/2011-12/documents/2011-12_Enacted_California_Budget_Summary-Veto_Message_Package.pdf). p. 42: “California Postsecondary Education Commission (CPEC) Reduction — To achieve statewide efficiencies and reduce state operations, General Fund support of CPEC is eliminated in 2011-12. CPEC would continue to administer a component of the federal Improving Teacher Quality Grants Program in 2011-12.” California Postsecondary Education Commission. 2011a. California Postsecondary Education Commission: Notice of Impending Closure. (August 3, 2011, <http://www.cpec.ca.gov/Commission/Closure.asp>) “The California Postsecondary Education Commission’s entire General Fund allocation for 2011-12 was eliminated by Governor Brown in a line item veto upon signing the State Budget on June 30, 2011. This means that the Commission will cease to operate after the expiration of the required period for employees to find other positions or be laid off. The veto did not affect the federally-funded Improving Teacher Quality State Grants Program, which is expected to be transferred to another department, most likely the California

Adrian Griffin, Assistant Director of CPEC, we learned that CPEC's review processes would disappear with the closure of the agency at the end of 2011, but the statutes that provide for the Commission will remain in place. Griffin said the internal review processes of California's postsecondary institutions would take the place of the Commission's responsibilities.¹¹³ The California Legislative Analyst's Office, opposed to the elimination of CPEC, recommended reforming or replacing CPEC, delaying elimination of the agency, or transferring CPEC's functions to another existing department of the state government.¹¹⁴

The University of California's internal review process for the establishment of new academic units, which included CPEC review, is described in detail in the University of California's Academic Planning Council's "Compendium."¹¹⁵ Academic units are organizations of the

Department of Education."

See also: California Legislature. 2011. At Sacramento: 2011-12 Regular Session. Supplemental Senate File. Governor's Vetoes, Tuesday, July 5, 2011. Item Vetoes of Senate Bill No. 87 (Budget Bill). (January 15, 2012 [ftp://www.leginfo.ca.gov/pub/dailyfile/sen/senate_Governors_Vetoes.pdf](http://www.leginfo.ca.gov/pub/dailyfile/sen/senate_Governors_Vetoes.pdf)). Page 15, Item 28: "Item 6420-001-0001-For support of California Postsecondary Education Commission. I reduce this item from \$1,927,000 to \$0...I am vetoing the California Postsecondary Education Commission's (CPEC) \$1.9 million General Fund appropriation, and 19.1 positions. While I appreciate the importance of coordinating and guiding state higher education policy, I believe CPEC has been ineffective. I am requesting that the state's three public higher education segments, along with other higher education stakeholders, explore alternative ways to more effectively improve coordination and development of higher education policy. CPEC would continue to administer a component of the federal Improving Teacher Quality Grants Program in 2011-12. This action is consistent with my actions to reduce the cost of state operations and the size of state government through eliminations, consolidations, reductions, and efficiencies..."

113. Flower, R. B. 2011. Telephone conversation between Renée B. Flower and Adrian Griffin, Assistant Director of the California Postsecondary Education Commission (CPEC). Wednesday, August 3, 2011, 11:35-11:40 a.m. PDT. CPEC: (916) 445-1000.

114. California Legislative Analyst's Office. 2011. *Summary of LAO Findings and Recommendations on the 2011-12 Budget: Options Related to Governor's Proposal for CPEC*. (August 5, 2011, http://www.lao.ca.gov/laoapp/budgetlist/PublicSearch.aspx?PolicyAreaNum=31&Department_Number=-1&KeyCol=420&Yr=2011)

115. "The Compendium was first prepared in 1993-94, under the auspices of the Academic Planning Council (APC). The APC Subcommittee for Expediting Systemwide Review Processes brought together and formalized a variety of Universitywide review processes and, to the extent possible within the established review framework, instituted changes to increase efficiency without reducing effectiveness...In 1997-98, the APC established the APC Ad Hoc Compendium Review Subcommittee."

"The Compendium presents Universitywide review processes for creating and for modifying academic degree programs, academic units, and research units. It is designed to serve as a manual to the wide range of administrators, faculty, and staff who participate in

university's administrative and intellectual structures that have been approved to administer academic programs. A school or college is defined as an academic unit typically comprising one or more departments that offer one or more degree programs. A program is a sequence of courses and a set of requirements that lead to an academic degree in a particular discipline.¹¹⁶ New programs, which require an approval process similar to that of a new school, are usually created within existing departments or schools at a campus. The financial resources required to establish and operate a new school are considerable; they must support the appointment of a dean, founding faculty, and supporting physical and administrative structures.¹¹⁷ The review criteria established by CPEC included the following: student demand, societal needs, appropriateness to institutional and system mission, number of existing and proposed programs in the field, total costs of the program, and the advancement of knowledge.¹¹⁸ We found no evidence that CPEC's review criteria included any aspects of the 1862 Morrill Act's intellectual direction. The complex process required to establish a new school or college at a University of California campus can take at least two years, or longer to complete, and can be summarized as follows:

these processes. Specifically, the Compendium articulates systemwide review processes for proposals to establish, transfer, consolidate, change the name of discontinue and disestablish graduate degree programs, schools and colleges, and research units." See: University of California Office of the President. 2011a. *Compendium: Universitywide Review Processes for Academic Programs, Academic Units, & Research Units: University of California*. http://www.ucop.edu/ucophome/coordrev/ucpolicies/documents/compendium_jan2011.pdf (Accessed: March 7, 2011).

116. University of California, Santa Cruz, Campus Provost and Executive Vice Chancellor, Vice Provost of Academic Affairs. 2010. *Academic Programs and Units: Policy and Procedures Governing Establishment, Disestablishment, and Change*. (March 3, 2011, <http://planning.ucsc.edu/acadplan/PgmApproved/Policy.Sep2010.pdf>). Pages. 1-2.

University of California Office of the President, Academic Planning Council. 2011. *Compendium: Universitywide Review Processes for Academic Programs, Academic Units, & Research Units*. (August 5, 2011, http://www.ucop.edu/ucophome/coordrev/ucpolicies/documents/compendium_jan2011.pdf). Page. 25.

See also: California Legislative Analyst's Office, Taylor, M. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report*. (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf). Page 5.

117. —. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report*. (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf). Page 5.

118. *Ibid.* p. 7.

1. At least one year before submitting a full proposal for a new school, the proponents—typically faculty, departments, or administrators—must submit a pre-proposal first to the Divisional Academic Senate at their campus.
2. If approved at the campus level by the Divisional Academic Senate, the pre-proposal is sent to the systemwide Academic Senate and systemwide University Administration.
3. Upon receipt by the systemwide Academic Senate, the pre-proposal is reviewed by various committees: the Coordinating Council on Graduate Affairs (CCGA), the University Committee on Educational Policy (UCEP), and the University Committee on Planning Budget (UCPB), as well as by any other systemwide standing committee selected by the Academic Council Chair.
4. After the campus proponents receive comments from both the systemwide Academic Senate and the systemwide University Administration, the campus may prepare a full proposal.
5. A full proposal is reviewed first by the Divisional Academic Senate and next (simultaneously) by systemwide Academic Senate committees (CCGA, UCEP, UCPB, and any other chosen by the Academic Council Chair).
6. Approval of a new school or college requires favorable review by the systemwide Academic Senate, review of the California Postsecondary Education Commission (CPEC), the recommendation of the University President to the Regents of the University of California, and final approval by the Regents.¹¹⁹
7. Another step in the approval process is the independent evaluation of the proposal by the appropriate accrediting agency. The Western Association of Schools and Colleges (WASC), a non-governmental organization, provides accreditation for California's public universities. Specialized professional schools and programs receive separate accreditation from organizations with specific disciplinary focus. The American Bar Association accredits law schools and the Liaison Committee on Medical Education (LCME) provides

119. University of California Office of the President, Academic Planning Council. 2011. *Compendium: Universitywide Review Processes for Academic Programs, Academic Units, & Research Units*. (August 5, 2011, http://www.ucop.edu/ucophome/coordrev/ucpolicies/documents/compendium_jan2011.pdf)

Section III.B.1. Establishment of New Schools and Colleges. p. 25.

See also: California Legislative Analyst's Office, Taylor, M. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report*. (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf). pp. 4-8.

accreditation for medical schools that offer the M.D. degree.¹²⁰

THE UC RIVERSIDE MEDICAL SCHOOL: AN EXAMPLE OF UC'S PLANNING AND APPROVAL PROCESS

Planning for a new medical school at the University of California, Riverside campus began in 2003 with a Health Sciences Initiative Faculty Forum that was attended by more than 70 members of UCR's faculty in health science-related disciplines.¹²¹ The proposal for the school was reviewed under the approval process outlined in the chapter section above. In November 2006, The Regents authorized UC Riverside to proceed with plans for a medical school. The systemwide UC Academic Senate approved the proposal in June 2008, but with the contingency that the school should be approved only if new state funding resources were available for its startup and ongoing operations, and "if it is planned that a significant amount of funding should come from a redirection of existing resources, the school should not be approved."¹²² The UC Regents approved the proposal in July 2008, and CPEC concurred in September of that year; both of these approvals included statements that the school should not open unless funding is available for its startup and ongoing operation.¹²³ The Legislative Analyst's Office recommended maximizing enrollment at existing medical schools prior to establishing a new school.¹²⁴ As part of its \$650 million cut to UC's funding in the 2011-12

120. —. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report.* (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf) p. 8.

See also: Liaison Committee on Medical Education. 2011a. Overview: Accreditation and the LCME. (August 9, 2011, <http://www.lcme.org/overview.htm>)

121. University of California, Riverside. 2011. "What it takes to establish a medical school: Timeline". (August 11, 2011, <http://medschool.ucr.edu/timeline.html>)

122. California Legislative Analyst's Office, Taylor, M. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report.* (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf) p. 20. See also: University of California, Riverside. 2011. "What it takes to establish a medical school: Timeline". (August 11, 2011, <http://medschool.ucr.edu/timeline.html>)

123. California Legislative Analyst's Office, Taylor, M. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report.* (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf) pp. 20-24.

124. *Ibid.* pp. 21-22.

state budget, the State of California vetoed UC Riverside's requested \$15 million annual budget augmentation for the school.¹²⁵

To become fully accredited, new medical schools must complete a five-step accreditation review process. The Liaison Committee on Medical Education (LCME), which provides accreditation for medical schools in the United States and Canada, denied accreditation for the UC Riverside Medical School. In the summer of 2011, it was classified at the "applicant school" status—step one of five. At this stage in the process, a school "may not recruit or advertise for applicants or accept student applications."¹²⁶ In 2011, the LCME issued the following statement regarding its denial of accreditation for the UCR Medical School:

"A decision to deny preliminary accreditation to the University of California at Riverside School of Medicine was based primarily on the LCME's assessment that the school had not demonstrated sufficient financial resources to sustain a sound program of medical education. In addition, the LCME found inadequate strategic planning, insufficient key personnel, and weak policies and procedures related to student advancement and diversity. The LCME also found limited clinical education opportunities in psychiatry and pediatrics. The school declined to appeal this decision."¹²⁷

125. Olds, G. R. 2011. Desert Healthcare District Program Committee, July 19, 2011. Slide presentation by G. Richard Olds, MD, MACP, Vice Chancellor of Health Affairs and Dean of the School of Medicine at UC Riverside. (August 11, 2011, <http://www.mydesert.com/assets/pdf/J1177035719.PDF>) G. Richard Olds, M.D., was named vice chancellor of health affairs and founding dean of the UCR medical school in October 2009. His appointment became effective in February 2010.

University of California, Riverside. 2011. "What it takes to establish a medical school: Timeline". (August 11, 2011, <http://medschool.ucr.edu/timeline.html>) Also: University of California Office of the President, Budget and Capital Resources. 2011. *2011-12 Budget for Current Operations: Summary of the Budget Request As Presented to the Regents for Approval*. (August 11, 2011, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-summary.pdf>) p. 27.

Also: McMillan, C., University of California Office of the President, Integrated Communications. 2011. "State budget shortfall forces second fee increase for fall 2011". (August 13, 2011, <http://www.universityofcalifornia.edu/news/article/25942>) If state revenues fall short of projections, UC's budget could be reduced by another \$100 million later in 2011. "Over the past four years, UC's state appropriation has fallen by 27.1 percent, from \$3.25 billion in fiscal year 2007-08 to \$2.37 billion in fiscal year 2011-12."

126. Liaison Committee on Medical Education. 2011b. "Institutions with Developing Medical Education Programs that have Applied for Preliminary Accreditation by the LCME" (Updated August 9, 2011). (August 9, 2011, <http://www.lcme.org/newschoolprocess.htm>)

127. Ibid.

UCR has applied for a \$12 million grant from the Desert Healthcare District, a public agency, to be distributed over a 12-year period. But the District has put UCR's funding

Our chronicle of the efforts to obtain required approvals and a reliable source of funding for UCR's medical school illustrates the interdependency of intellectual direction and funding sources in University planning. In this case, despite receiving all required approvals from The Regents, the UC Academic Senate, and CPEC, the new medical school ultimately must have a reliable source of funding to meet the requirements for accreditation. The LAO points out that the Legislature does not play a direct role in the approval process for a new school; but the power to approve or deny funding can shape the intellectual direction of the university. In this case, the State's immense budget deficit led the Legislature to deny funding for the new school.¹²⁸

By the summer of 2013, California's economy had improved and the Legislature passed, and the Governor signed, Assembly Bill 94 that included an allocation of fifteen million dollars to the Regents of the University of California for the School of Medicine at the University of California, Riverside.¹²⁹ The School of Medicine was granted prelimi-

request on hold. A member of the District's Program Committee, Elizabeth Toledo, "raised concerns about giving the medical school \$1 million a year, which would be a major part of the \$3 million to \$4 million the district distributes annually to valley groups working on community health care issues. 'Your request may be unbalanced,' she told Olds [the medical school Dean]. 'We (must) gauge how to be just with other community organizations.'" See: Kaufmann, K. 2011. "Desert Healthcare District stalls UCR's \$12 million request". *The Desert Sun*. July 20, 2011, <http://www.mydesert.com/article/20110720/NEWS01/107200308/Desert-Healthcare-District-stalls-UCR-s-12-million-request>) Also: Desert Healthcare District. 2011. Desert Healthcare District: Special Meeting Program Committee Agenda Packet for July 19, 2011, 10:00 a.m. (August 11, 2011, http://www.dhcd.org/uploaded-assets/program_and_grant_committee/07%2019%2011%20PC%20Packet%202.pdf)

128. California Legislative Analyst's Office, Taylor, M. 2009. *The Master Plan at 50: Improving State Oversight of Academic Expansions. An LAO Report*. (July 9, 2011, http://www.lao.ca.gov/2009/edu/academic_expansions/academic_expansions_120209.pdf) pp. 24-26.

129. California Legislature. 2013. California Assembly Bill 94. 2013–14 Regular Session. July 1, 2013. An act to add Sections 69515.5, 89762, 92493, 92494, 92495, 92495.5, and 92496 to, to add Article 22 (commencing with Section 70020) to Chapter 2 of Part 42 of Division 5 of, to add Article 10 (commencing with Section 89290) and Article 10.5 (commencing with Section 89295) to Chapter 2 of Part 55 of Division 8 of, to add Article 7.5 (commencing with Section 92670) and Article 7.7 (commencing with Section 92675) to Chapter 6 of Part 57 of Division 9 of, Title 3 of, the Education Code, and to add Section 13313 to the Government Code, relating to education finance, and making an appropriation therefor, to take effect immediately, bill related to the budget. (January 5, 2014, http://leginfo.ca.gov/pub/13-14/bill/asm/ab_0051-0100/ab_94_bill_20130701_chaptered.htm) See also: Pittalwala, I. 2013. *UCR Today*. "California Governor Signs Budget that Brings

nary status accreditation from the LCME in 2012.¹³⁰

THE CALIFORNIA LEGISLATURE: SENATE CONSTITUTIONAL AMENDMENT 21 (SCA-21)

Actions approved by the UC Regents to increase compensation for certain university officials led to a response from the State Legislature far more aggressive than the denial of funding for a new medical school. Senate Constitutional Amendment 21 (SCA-21), introduced in 2009, sought to abolish the constitutional autonomy of the University of California and make the University and The Regents “subject to legislative control as may be provided by statute.”¹³¹ In that same year, the University endured an \$813 million reduction in support from the State’s General Fund, and the University’s share of the state’s general fund would decrease even more by 2011–12, dropping “from 8.1 percent in 1966–67 to 3.0 percent in 2011–12.”¹³² At the Board of Regents meeting of July 2009, Chairman Russell Gould, citing Mike Genest, Director of the Department of Finance for California, said:

“... the State’s financial position remains very dire...the State is expecting a deficit of \$7 to \$8 billion in the coming year and...it is not anticipat-

UC Riverside School of Medicine Long-sought State Funding: State Legislature directs UC system to allocate \$15 million annually to medical school from its budget”. (January 10, 2014, <http://ucrtoday.ucr.edu/15957>)

130. Liaison Committee on Medical Education (LCME). 2014. Medical School Directory: LCME-Accredited MD Programs in the United States. (January 5, 2014, <http://www.lcme.org/directory.htm>).

131. Yee, L., Ashburn, R. A. 2009. *A resolution to propose to the people of the State of California an amendment to the Constitution of the State, by amending, repealing, and adding Section 9 of Article IX thereof, relating to the University of California*. Senate Constitutional Amendment No. 21 (S.C.A. No. 21). California Senate. (August 9, 2011, http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_0001-0050/sca_21_bill_20100303_amended_sen_v98.html) Assembly Constitutional Amendment (A.C.A. No. 24), identical to S.C.A. No. 21, was simultaneously introduced in the California Assembly in 2009.

132. University of California Office of the President, Integrated Communications. 2009. “UC President Proposes Plan to Address Fiscal Crisis”. (August 13, 2011, <http://www.universityofcalifornia.edu/news/article/21485>)
See also: University of California Office of the President. 2011f. *University of California Annual Accountability Report 2011*. (August 5, 2011, <http://www.universityofcalifornia.edu/regents/regmeet/jul11/11.pdf>). Also: www.universityofcalifornia.edu/accountability) Page 23: “The University’s share of the state’s general fund dropped from 8.1 percent in 1966–67 to 3.0 percent in 2011–12.”

ing a lessening of financial problems in the years following.”¹³³

Against a background of steadily declining state funding for the University, and a concurrent growth in the share of the state budget for the California Department of Corrections and Rehabilitation of 4 percent to about 10 percent during the period from 1966-67 through 2010-1,¹³⁴ Leland Yee, Assistant President pro Tem of the California State Senate and author of SCA-21, described the basis for the proposed amendment:

“Last month, the University of California Board of Regents yet again approved exorbitant pay raises for more than two dozen executives. The hikes, which include a 25 percent increase for UC San Francisco’s chief financial officer and pay in excess \$500,000 for UCSF’s chief operating officer, were documented in last week’s San Francisco Chronicle ...The recent scandal is just the latest of several pay hikes for UC executives in 2009. Earlier this year, the UC handed out 22 percent pay increases for several senior managers and paid exorbitant administrative leave for two former chancellors, receiving over \$300,000 and \$400,000 a year each. The Regents also approved a \$450,000 salary for the new UCSF Chancellor (a 12 percent hike from the previous chancellor) and a \$400,000 salary for the new UC Davis Chancellor (a 27 percent hike from her predecessor). UC President Mark Yudof also receives nearly a \$1 million in salaries and perks. These actions come at the same time the Regents approved pay cuts, layoffs, and furloughs for lower wage workers.”¹³⁵

In his introduction to the proposed constitutional amendment, Yee further stated:

133. The Regents of the University of California. 2009. The Minutes of The Regents of the University of California and its Committees for September 2009: The Regents of the University of California Meeting as a Committee of the Whole—September 16, 2009, and September 17, 2009. UCSF – Mission Bay Community Center, San Francisco. (August 12, 2011, <http://www.universityofcalifornia.edu/regents/minutes/2009/cw916.pdf>) September 16, 2009, p. 4.

134. University of California Office of the President. 2011f. *University of California Annual Accountability Report 2011*. (August 5, 2011, <http://www.universityofcalifornia.edu/regents/regmeet/jul11/1.pdf>. Also: www.universityofcalifornia.edu/accountability) p. 23.

135. Yee, L. 2009. “Yet Another UC Compensation Scandal Renews Calls for Legislation”. *California Progress Report* (August 11, 2011, <http://www.californiaprogressreport.com/site/node/266>). California State Senator Leland Yee, Ph.D. (Democratic), serves the residents of District 8, which includes San Francisco and San Mateo County. Yee received his bachelor’s degree from the University of California at Berkeley, his master’s degree from San Francisco State University, and a doctorate in Child Psychology from the University of Hawaii.

“What these measures will do is rein in the arrogance of UC. For too long with the rarified air that they breathe and the high rent district that they live in, they’ve been totally out of touch with the people of California... What this legislation will do is to provide some voice, some people’s voice in the operation of UC.”¹³⁶

Yee’s proposed constitutional amendment did not express any objections to the University’s curriculum. According to the senator’s comments, the bill emerged only from concern over the level of compensation for University officials approved by the Regents. However, the provisions of the proposed constitutional amendment are ambiguous in regard to the interdependency between the University’s sources of intellectual direction and funding, and political influence. The text of SCA-21 (amended March 3, 2010) that would have replaced the existing Article IX, Section 9, reads as follows:

Section 9 is added to Article IX thereof, to read:

SEC. 9.

(a) The University of California is hereby continued in existence in the state government, and is subject to legislative control as may be provided by statute.

(b) The University of California shall be administered by the existing corporation known as “The Regents of the University of California,” which is hereby continued in existence in the state government, and is subject to legislative control as may be provided by statute.

(c) (1) The Legislature shall enact legislation to implement this section.

(2) Notwithstanding subdivisions (a) and (b), or any other provision of this Constitution, the Legislature shall not enact any law that restrains academic freedom within the University of California or imposes educational or curricular requirements on students enrolled at the University of California.

(3) As used in this subdivision, “academic freedom” means the freedom to discuss all relevant matters in the classroom, to explore all avenues of scholarship, research, and creative expression, and to speak or write without institutional discipline or restraint on matters of public concern as well as matters related to

136. *California Progress Report*. 2009. *UC Would No Longer Be ‘Above The Law’ Under Proposed Constitutional Change*. (August 9, 2011, <http://www.californiaprogressreport.com/site/node/519>) In a prepared written statement, the amendment’s co-sponsor, Senator Roy Ashburn (Republican), said: “The voters want us to do our job by stopping wasteful expenditures as blatantly demonstrated by the UC Board of Regents. SCA 21 will force the UC Regents to open up their books and justify how they spend every tax dollar by removing their autonomy and making them subject to the rule of law.” *Ibid*.

professional duties and the functioning of the university.

(d) This section shall become operative on January 1, 2011.¹³⁷

SCA-21 proposed to subject the University and the Regents “to legislative control as may be provided by statute,”¹³⁸ making inoperative the language in the existing Section 9 of Article IX that protected the University from political and sectarian meddling. In addition, the proposed amendment discarded what little remained in the Constitution regarding the relation between the University and the federal Morrill Act of 1862, the original statutory source of the University’s intellectual direction. Article IX, Section 9 language that would have been eliminated under the terms of the amendment included the following:

“The regents shall receive all funds derived from the sale of lands pursuant to the act of Congress of July 2, 1862, and any subsequent acts amendatory thereof. The University shall be entirely independent of all political or sectarian influence and kept free therefrom in the appointment of its regents and in the administration of its affairs...”¹³⁹

The amendment would have subjected the University and the Regents to control by the Legislature through as yet to be determined statutes; yet, at the same time purportedly would have provided protection for academic freedom and the University’s source of intellectual direction. However, the University’s sources of intellectual direction are ambiguous, since all references to the 1862 Morrill Act and its requirements are eliminated. SCA-21 states:

“...the Legislature shall not enact any law that restrains academic freedom within the University of California or imposes educational or curricular requirements on students enrolled at the University of California.”¹⁴⁰

137. Yee, L., Ashburn, R. A. 2009. A resolution to propose to the people of the State of California an amendment to the Constitution of the State, by amending, repealing, and adding Section 9 of Article IX thereof, relating to the University of California. Senate Constitutional Amendment No. 21 (S.C.A. No. 21). California Senate. (August 9, 2011, http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_0001-0050/sca_21_bill_20100303_amended_sen_v98.html) Author(s): Yee and Ashburn (Principal coauthors: Assembly Members Nestande and Portantino) (Coauthor: Senator Romero). Last Amended Date: 03/03/2010.

138. Ibid.

139. Ibid.

140. Ibid. Excerpt from the proposed amendment: “As used in this subdivision, “academic freedom” means the freedom to discuss all relevant matters in the classroom, to explore all avenues of scholarship, research, and creative expression, and to speak or write without

Despite the presence of language protective of academic freedom in the proposed amendment, given the strong links between intellectual direction, sources of funding, and governance, were the Legislature to gain control of the administrative structure of the University, through “legislative control as may be provided by statute,” the authority of the Legislature could then be extended to the institution’s intellectual direction. For example, the Legislature could assume the power to approve or deny Faculty appointments, and might choose to challenge the principle of shared governance.

In terms of the university’s autonomy and its sources of intellectual direction, there is an important difference between the University of Virginia and the University of California. The California Legislature, unlike that of the State of Virginia, does not have the power to confirm or deny The Board of Regents’ decisions. But Article IX, Section 9 (a) of the State’s Constitution, which defines the powers of the Regents, includes language that could potentially give the Legislature limited control over the intellectual direction of the university. The powers of organization and government given to the Regents by the State’s Constitution are subject to “legislative control as may be necessary to insure ... compliance with the terms of the endowments of the university.”¹⁴¹ The University’s endowments include revenue derived from the sale of federal lands granted to the State under the terms of the Morrill Act of 1862. Since the Morrill Act’s endowment is linked to intellectual direction, the Legislature could conceivably question the University’s intellectual direction in terms of compliance with the Act. The Legislature has questioned the University, as we saw with the California Legislature’s introduction of SCA-21; however, that proposed constitutional amendment questioned levels of executive pay, not compliance with the terms of the 1862 Morrill Act endowment.

institutional discipline or restraint on matters of public concern as well as matters related to professional duties and the functioning of the university.”

141. State of California. 1879a. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011, http://www.leginfo.ca.gov/.const/.article_9) Excerpt from Article IX, Section 9 (a): The Regents have “full powers of organization and government, subject only to such legislative control as may be necessary to insure the security of its funds and compliance with the terms of the endowments of the university and such competitive bidding procedures as may be made applicable to the university by statute for the letting of construction contracts, sales of real property, and purchasing of materials, goods, and services.”

THE CALIFORNIA LEGISLATURE: FUNDING FOR SPECIFIC RESEARCH PROGRAMS

Funding for AIDS, tobacco-related disease, and breast cancer research programs is included in the State's budget for the University of California. The California Legislature's annual appropriation of funds for these three state-mandated programs might be interpreted as being a source of intellectual direction to the University, and could be understood as an example of the interdependence between sources of intellectual direction and funding for the University. While the Legislature was not the original source of the ideas that led to the establishment of these three specific research programs, the history of these programs reveals the Legislature's willingness to provide funding when convinced of the importance of the research program to the welfare of the State.

Funding for AIDS research programs

In 1981, researchers at the University of California, San Francisco, began to see an unusual number of cases of extremely rare diseases—Kaposi's sarcoma and *Pneumocystis carinii* (now called *Pneumocystis jirovecii* pneumonia)¹⁴²—in young male homosexual patients that were also found to have suppressed immune systems.¹⁴³ The first press report of the syndrome that would later come to be known as AIDS appeared in *The New York Times* in July 1981. That report quoted a medical investigator who had tested nine victims of the unusual outbreak of Kaposi's sarcoma and "found severe defects in their immunological systems."¹⁴⁴ In a March 1983 issue of *Morbidity and Mortality*

142. Medline Plus (National Library of Medicine-National Institutes of Health). 2009. "Pneumocystis jirovecii pneumonia". (September 18, 2011, <http://www.nlm.nih.gov/medlineplus/ency/article/000671.htm>)

143. Hughes, S. S. 1996. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984*, Volume II. "Interview History: Dr. Marcus Conant." Contributing Institution: Regional Oral History Office, University of California, Berkeley. <http://content.cdlib.org/view?docId=kt7b69n8jn&brand=calisphere>, pp. 99-106. See also: Centers for Disease Control and Prevention. 1981. "Kaposi's Sarcoma and Pneumocystis Pneumonia Among Homosexual Men - New York City and California". *Morbidity and Mortality Weekly Reports* 30: 305-308.

144. Altman, L. K. 1981. "Rare Cancer Seen in 41 Homosexuals". *The New York Times*. July 3, 1981. (September 18, 2011; <http://www.nytimes.com/1981/07/03/us/rare->

Weekly Reports, the Centers for Disease Control and Prevention (CDC) said, “available data suggest that the severe disorder of immune regulation underlying AIDS is caused by a transmissible agent.”¹⁴⁵ In April 1983, in recognition of the need for immediate action to respond to a human health crisis, a group of researchers from UC San Francisco, UC Los Angeles, and UC San Diego, bypassed the University’s accepted administrative procedures and met with California Assembly Speaker Willie Brown (Democrat) at his office in Los Angeles.¹⁴⁶ The meeting, organized by Dr. Marc Conant from UCSF, was called to ask Speaker Brown for money for AIDS research,¹⁴⁷ and led to the first funding for

cancer-seen-in-41-homosexuals.html). This NYT article is also mentioned by Hughes, who notes that it was the first press report of the syndrome:

Hughes, S. S. 1996. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984*, Volume II. “Interview History: Dr. Marcus Conant.” Contributing Institution: Regional Oral History Office, University of California, Berkeley. <http://content.cdlib.org/view?docId=kt7b69n8jn&brand=calisphere>)

145. Centers for Disease Control and Prevention. 1983. “Current Trends Prevention of Acquired Immune Deficiency Syndrome (AIDS): Report of Inter-Agency Recommendations”. *Morbidity and Mortality Weekly Reports* 32(8): 101-103.

Also mentioned in: Hughes, S. S. 1998. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984*, Volume VI, an oral history conducted in 1994. The Bancroft Library, University of California, Berkeley. The San Francisco AIDS Oral History Series. Regional Oral History Office, University of California, Berkeley. (July 24, 2011, http://content.cdlib.org/view?docId=kt396n99cm&brand=calisphere&doc.view=entire_text). Appendix A.

146. University of California Office of the President, Office of Health Affairs, Universitywide AIDS Research Program (University of California (System)). 1994. *Universitywide AIDS Research Program Annual Report, January 1994*. Oakland, California: University of California.

Hughes, S. S. 1998. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984*, Volume VI, an oral history conducted in 1994. The Bancroft Library, University of California, Berkeley. The San Francisco AIDS Oral History Series. Regional Oral History Office, University of California, Berkeley. (July 24, 2011, http://content.cdlib.org/view?docId=kt396n99cm&brand=calisphere&doc.view=entire_text)

The UCSF professors and researchers that met with Willie Brown included the following: Donald A. Abrams, M.D.; Arthur J. Ammann, M.D.; Marcus A. Conant, M.D.; William Lawrence Drew, M.D., Ph.D.; John S. Greenspan, B.D.S., Ph.D.; Jay A. Levy, M.D.; Paul A. Volberding, M.D.; and John L. Ziegler, M.D., M.Sc. Also in attendance was Michael Gottlieb M.D., from UCLA.

147. Shilts, R. 1987. *And the band played on: politics, people, and the AIDS epidemic*. New York: St. Martin’s Press. p. 280.

See also: Hughes, S. S. 1998. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984*, Volume VI, an oral history conducted in 1994. The Bancroft Library, University of California, Berkeley. The San Francisco AIDS Oral History Series. Regional Oral History Office, University of California, Berkeley. (July 24, 2011, http://content.cdlib.org/view?docId=kt396n99cm&brand=calisphere&doc.view=entire_text)

AIDS research in a public university.¹⁴⁸ Speaker Brown introduced a bill to the Legislature to augment the University's research budget to support research projects related to AIDS, and in July of that year the Legislature and Governor approved \$2.9 million for AIDS research. To administer the research application and funding process, the Universitywide AIDS Research Program (UARP), located in the University of California Office of the President, was established.¹⁴⁹ In 2007, UARP was renamed the California HIV/AIDS Research Program (CHRP).¹⁵⁰

The Breast Cancer Act of 1993

"Breast cancer is not just a personal tragedy," said Assemblywoman Friedman, "it's a public health disaster."¹⁵¹

The California Breast Cancer Research Program (CBCRP), established under the provisions of the *Breast Cancer Act of 1993*, owes its existence to the collective efforts of breast cancer survivors and advocates, research scientists, clinicians, and elected state officials.¹⁵²

148. The Conant Foundation. 2011. "Marcus A. Conant, M.D." (September 17, 2011, <http://conantfoundation.org/board-of-directors/marcus-a-conant-md/>)

149. Shilts, R. 1987. *And the band played on: politics, people, and the AIDS epidemic*. New York: St. Martin's Press. p. 281.

See also: Richardson, J. D. 1996. *Willie Brown: A Biography*. Berkeley: University of California Press. <http://ark.cdlib.org/ark:/13030/ft0m3nb07q/> (Accessed: July 16, 2011).

Das, N. K., Hopper, C. L., Jencks, M., Silva, J. 1991. "A University of California State-Supported AIDS Research Award Program—A Unique State and University Partnership in AIDS Research". *Journal of Clinical Immunology* 11: 65-73. Pp. 65-66.

Hughes, S. S. 1998. *The AIDS Epidemic in San Francisco: The Medical Response, 1981-1984, Volume VI, an oral history conducted in 1994*. The Bancroft Library, University of California, Berkeley. The San Francisco AIDS Oral History Series. Regional Oral History Office, University of California, Berkeley. (July 24, 2011, http://content.cdlib.org/view?docId=kt396n99cm&brand=calisphere&doc.view=entire_text)

University of California Office of the President, Office of Health Affairs, California HIV/AIDS Research Program. 2011. About Us: Establishment of the California HIV/AIDS Research Program (CHRP). (July 24, 2011, http://www.californiaaidsresearch.org/about_us/index.html)

150. —. 2011. About Us: Establishment of the California HIV/AIDS Research Program (CHRP). (July 24, 2011, http://www.californiaaidsresearch.org/about_us/index.html)

151. California Breast Cancer Research Program. 1995. CBCRP Newsletter: Volume one, Number one, Fall 1995. (September 13, 2011, <http://www.cbcrp.org/publications/newsletters/1995/>)

152. Ibid.

The Breast Cancer Act and subsequent amendments to the Act were authored by California Assemblywoman Barbara Friedman (Democrat, Los Angeles).¹⁵³ Under the Act's provisions, revenues generated from an increase in the State's cigarette and tobacco products tax rate is deposited into the Breast Cancer Fund. The revenues are divided equally between the Fund's two accounts: the California Breast Cancer Research Account and the Breast Cancer Control Account. Ninety percent of the funds deposited to the Breast Cancer Research Account are dedicated to the CBCRP, administered by the Research Grants Program Office at the University of California, Office of the President.¹⁵⁴

153. —. 1997. California Breast Cancer Research Program, 1997 Symposium. Keynote Speaker Barbara Friedman. (September 13, 2011, http://www.cbcrp.org/symposium/previous/1997/page_05_4.php)

In 1994, John Young, Legislative Director to Assembly Member Barbara Friedman, provided details of the legislative history of AB 478 and AB 2055, the *Breast Cancer Act of 1993*: "The idea for the Act was conceived in December of 1991, and despite a strong lobbying campaign, the first legislative effort was defeated on the Assembly floor in August 1992, during the State's long budget impasse. AB 478 was reintroduced in February of 1993, and a lobbying strategy, including grassroots, Sacramento, and press activities, was undertaken to try to create a climate that would encourage the Legislature to pass the bill...A great deal of energy was unleashed, and after a long debate on the Assembly floor, the bill passed with the bare minimum of 54 votes in June 1993." See: University of California Breast Cancer Research Council and Breast Cancer Research Program. 1994. University of California: Breast Cancer Research Council, Breast Cancer Research Program. Meeting Minutes, March 28, 1994. (September 19, 2011, <http://www.cbcrp.org/about/minutes/032894.pdf>). pp. 2-3.

Enabling legislation for the *Breast Cancer Act of 1993*:

California Legislature. 1993a. Breast Cancer Act of 1993 (AB 478 (B. Friedman) [Chapter 660, Statutes of California, 1993]). Pages 3812-3816: Statutes of California, 1993, Volume 2. 1993-1994 Regular Session. Compiled by Bion M. Gregory, Legislative Counsel.

—. 1993b. *Breast Cancer Act of 1993* (AB 2055 (B. Friedman) [Chapter 661, Statutes of California, 1993]) and AB 478 (B. Friedman) [Chapter 660, Statutes of California, 1993]). Pages 3812-3826: Statutes of California, 1993, Volume 2. 1993-1994 Regular Session. Compiled by Bion M. Gregory, Legislative Counsel.

The Breast Cancer Act of 1993 was amended by AB 3391 in 1994, and AB 2915 in 1996:

—. 1994. California Assembly Bill 3391. Barbara Friedman. Chapter 483, Statutes of 1994. "An act to amend Section 30461.6 of the Revenue and Taxation Code, and to amend Section 9 of Chapter 661 of the Statutes of 1993, relating to breast cancer". (September 13, 2011, http://www.leginfo.ca.gov/pub/93-94/bill/asm/ab_3351-3400/ab_3391_bill_940912_chaptered)

—. 1996. Assembly Bill No. 2915. Barbara Friedman. Chapter 543, Statutes of 1996. "An act to add Article 1 (commencing with Section 104145) to Chapter 2 of Part 1 of Division 103 of the Health and Safety Code, and to repeal Section 9 of Chapter 661 of the Statutes of 1993, relating to public health". (September 15, 2011, http://www.leginfo.ca.gov/pub/95-96/bill/asm/ab_2901-2950/ab_2915_bill_960916_chaptered.html)

154. University of California Office of the President. 2011c. Research Grants Program

The CBCRP awards grants and contracts for research related to the cause, cure, treatment, prevention, and detection of breast cancer to researchers from public and private institutions, nonprofit organizations, industry, and community groups throughout the state.¹⁵⁵ The remaining ten percent of the funds deposited to the Breast Cancer Research Account are directed to the Cancer Surveillance Section of the State Department of Health Services for the collection of breast cancer-related data. The funds in the Breast Cancer Control Account are allocated to the Breast Cancer Control Program, which was created to provide early breast cancer detection services for uninsured and underinsured women.¹⁵⁶

The Tobacco Tax and Health Protection Act of 1988

In California, not all legislation has its origins in the state's Legislature. California's direct democracy initiative process, established in 1911 through an amendment to the state's Constitution, provides an alternative route for the legislative process. The direct initiative process allows citizens to bypass the Legislature to place a measure on the ballot for voter approval or rejection.¹⁵⁷

Office. (September 15, 2011, <http://www.ucop.edu/research/rgpo/funding.html>)

California legislature. 1994. California Assembly Bill 3391. Barbara Friedman. Chapter 483, Statutes of 1994. "An act to amend Section 30461.6 of the Revenue and Taxation Code, and to amend Section 9 of Chapter 661 of the Statutes of 1993, relating to breast cancer". (September 13, 2011, http://www.leginfo.ca.gov/pub/93-94/bill/asm/ab_3351-3400/ab_3391_bill_940912_chaptered).

University of California Office of the President. 2011e. "About Us: California Breast Cancer Research Program (CBCRP)." (July 24, 2011, <http://cbcpr.org/about/>)

State of California. 1993a. Health and Safety Code, Section 104145 (September 13, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=104001-105000&file=104145>)

—. 1993b. Revenue and Taxation Code, Section 30461-30462.1. (September 13, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=rtc&group=30001-31000&file=30461-30462.1>)

155. University of California Office of the President. 2011c. Research Grants Program Office. (September 15, 2011, <http://www.ucop.edu/research/rgpo/funding.html>)

156. California legislature. 1994. California Assembly Bill 3391. Barbara Friedman. Chapter 483, Statutes of 1994. "An act to amend Section 30461.6 of the Revenue and Taxation Code, and to amend Section 9 of Chapter 661 of the Statutes of 1993, relating to breast cancer". (September 13, 2011, http://www.leginfo.ca.gov/pub/93-94/bill/asm/ab_3351-3400/ab_3391_bill_940912_chaptered)

157. California Secretary of State. 2011. *Statewide Initiative Guide: Background*. (August

In 1988, the citizens of California approved the initiative known as Proposition 99, *The Tobacco Tax and Health Protection Act of 1988*.¹⁵⁸ This Act increased the state cigarette and tobacco products tax and specified that a percentage of the revenue collected be used to fund research on the prevention and treatment of tobacco-related disease in California. As part of the Act, the Legislature asked the University of California, the state's primary public research institution, to establish and administer the Tobacco-Related Disease Research Program (TRDRP), which is housed at the University of California, Office of the President.¹⁵⁹

The California HIV/AIDS Research Program, the California Breast Cancer Research Program, and the Tobacco-Related Disease Research Program are state-mandated research programs administered by the University of California, the State's public research institution. Each

23, 2011 <http://www.sos.ca.gov/elections/ballot-measures/initiative-guide.htm>). See also: State of California. 2011d. California Constitution. Article 2, Section 8. Voting, Initiative and Referendum, and Recall. (August 23, 2011, http://www.leginfo.ca.gov/.const/.article_2) Article II, § 8 (a): "The initiative is the power of the electors to propose statutes and amendments to the Constitution and to adopt or reject them." See also: —. 2011b. Constitution of California. Article IV, Legislative. Section 1. (September 10, 2011, http://www.leginfo.ca.gov/.const/.article_4). Article IV, Legislative. §1: "The legislative power of this State is vested in the California Legislature which consists of the Senate and Assembly, but the people reserve to themselves the powers of initiative and referendum." Also: Beard, C. A., Shultz, B. E. 1912. *Documents of the State-wide Initiative, Referendum and Recall*. New York: The Macmillan Company. See pages 184-191 for the text of Senate Constitutional Amendment No. 22, of 1911.

158. "The enabling legislation for Prop 99 includes Assembly Bill (AB) 75 (Chapter 1331, Statutes of 1989), AB 99 (Chapter 278, Statutes of 1991), AB 816 (Chapter 195, Statutes of 1994), AB 3487 (Chapter 199, Statutes of 1996), Senate Bill (SB) 99 (Chapter 1170, Statutes of 1991), SB 960 (Chapter 1328, Statutes of 1989), SB 493 (Chapter 194, Statutes of 1995); the annual State Budget; H&S Code, Sections 104350-104480, 104500-104545; and the Revenue and Taxation Code, Sections 30121-30130." See: California Department of Public Health. 2010. "Legislative Mandate for Tobacco Control - Proposition 99". (September 20, 2011, <http://www.cdph.ca.gov/programs/tobacco/Pages/CTCPLegislativeMandateforTobaccoControl-Prop99.aspx>) See also: Glantz, S. A., Balbach, E. D. 2000. *Tobacco War: Inside the California Battles*. Berkeley: University of California Press. Glantz and Balbach provide a detailed political history of Proposition 99 and related legislation.

159. University of California Office of the President, Tobacco-Related Disease Research Program. 2010. "Annual Report 2010: From the University of California to the California State Legislature on the progress of the Tobacco-Related Disease Research Program". (September 20, 2011, <http://www.trdrp.org/annualReport/trdrpannprt-10.pdf>). Also: State of California. 2011a. Health and Safety Code, Section 104500-104545. (September 20, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=104001-105000&file=104500-104545>), and The Tobacco-Related Disease Research Program. 2011. The TRDRP: About Us. (September 15, 2011, <http://www.trdrp.org/about/index.php>)

of these research programs offers grants that are open to researchers from all private and public institutions, community groups, industry, and nonprofit organizations in California. The administration of these research programs could be understood as being consistent with the University's responsibilities as the state's primary state-supported public research institution as defined by the California Education Code.¹⁶⁰ However, the California Legislature's willingness to provide funding for research programs in the public interest leads us to question why these specific research programs have received public funding while at the same time the Legislature has reduced unrestricted public funding to the University to support research required under the terms of the 1862 Morrill Act.

GOVERNING THE UNIVERSITY IN CONJUNCTION: THE CALIFORNIA LEGISLATURE, THE INITIATIVE PROCESS, AND THE REGENTS

Proposition 209, also known as the California Civil Rights Initiative, was approved by California voters in the November 5, 1996, general election. It ended affirmative action¹⁶¹ in California government, and

160. State of California. 2011f. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) "The University of California shall be the primary state-supported academic agency for research." Section 66010.4.(c)

161. On March 6, 1961, President John F. Kennedy issued *Executive Order 10925 of 1961*, which included a provision that government contractors not discriminate and that they will "take affirmative action." The Order states: "The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin." See: United States Equal Employment Opportunity Commission (EEOC). 1961. *Executive Order 10925. Establishing The President's Committee On Equal Employment Opportunity*. John F. Kennedy, The White House, March 6, 1961. (August 29, 2011, <http://www.eeoc.gov/eeoc/history/35th/thelaw/eo-10925.html>).

On September 24, 1965, President Lyndon B. Johnson issued Executive Order 11246 which superseded Executive Order 10925 of 1961. Executive Order 11246 prohibited discrimination based on race, color, religion, and national origin by organizations that receive federal contracts and subcontracts.

—Part I, Section 101: "It is the policy of the Government of the United States to provide equal opportunity in Federal employment for all qualified persons, to prohibit discrimination in employment because of race, creed, color, or national origin..."

—Part II, Subpart B, Section 202 (1): "The contractor will not discriminate against any

is incorporated into the Constitution of California:

Article 1, Declaration of Rights. Section 31 (a) “The State shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.”¹⁶²

In 1995, prior to the passage of Proposition 209, The Regents of the University of California, led by Regent Ward Connerly (appointed to The Regents in 1994 by Governor Pete Wilson), adopted resolution SP-1 (Special Policy, or special regental action number 1). Regents’ Resolution SP-1 “prohibited the consideration of race, religion, sex, color, ethnicity, or national origin as criteria for admission to the University or to any program of study.”¹⁶³ Much has been written about

employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin.”

—. 1965. Executive Order No. 11246. (Part II, Subpart B, Section 202(1)). September 28, 1965, 30 F.R. 12319. Equal Employment Opportunity. Lyndon B. Johnson. The White House. September 24, 1965. (August 29, 2011, <http://www.eeoc.gov/eeoc/history/35th/thelaw/eo-11246.html>)

In 1967, President Johnson issued Executive Order 11375 (amending EO 11246) to include sex on the list of attributes. EO 11375 was amended by Executive Order 11478–Equal employment opportunity in the Federal Government:

“Section 1. It is the policy of the Government of the United States to provide equal opportunity in Federal employment for all persons, to prohibit discrimination in employment because of race, color, religion, sex, national origin, handicap, or age, and to promote the full realization of equal employment opportunity through a continuing affirmative program in each executive department and agency. This policy of equal opportunity applies to and must be an integral part of every aspect of personnel policy and practice in the employment, development, advancement, and treatment of civilian employees of the Federal Government.”

“Sec. 2. The head of each executive department and agency shall establish and maintain an affirmative program of equal employment opportunity for all civilian employees and applicants for employment within his jurisdiction in accordance with the policy set forth in section 1.”

Lyndon B. Johnson, President of the United States. 1969. National Archives. Executive Order 11478–Equal employment opportunity in the Federal Government. Source: The provisions of Executive Order 11478 of Aug. 8, 1969, appear at 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803. (May 26, 2012, <http://www.archives.gov/federal-register/codification/executive-order/11478.html>)

162. State of California. California Constitution. Article 1, Declaration of Rights. Section 31. (August 23, 2011, http://www.leginfo.ca.gov/.const/.article_1)

163. University of California Office of the President, Office of Strategic Communications. 2001. Facts About the University of California: SP-1 and SP-2. (July 30, 2011, <http://www.ucop.edu/ucophome/commserv/factsheets/sp1and2.pdf>)

the politics, background, and consequences of Proposition 209, and we direct our readers to other books that focus on those aspects of the proposition.¹⁶⁴ We are interested in the relation of Proposition 209 to the University's administrative and intellectual structures and its sources of funding.¹⁶⁵

Regents' Resolution SP-2 (Special Policy, or special regental action number 2) extended prohibition of consideration of race, religion, sex, color, ethnicity, or national origin to the University's employment and contracting practices.

164. For additional background on the history of Proposition 209, consult the following sources: Douglass, J. A. 2007. *The Conditions for Admission: Access, Equity, and the Social Contract of Public Universities*. Palo Alto, California: Stanford University Press
 —. 2001. "Anatomy of Conflict: The Making and Unmaking of Affirmative Action at the University of California". Pages 118-144 in Skrentny J. D., ed. *Color Lines: Affirmative Action, Immigration, and Civil Rights Options for America*. Chicago: The University of Chicago Press. Chávez, L. 1998. *The Color Bind: California's Battle to End Affirmative Action*. Berkeley, California: University of California Press.

165. Note: On February 7, 2011, California State Senator Ed Hernandez introduced SB 185 to the state's Legislature. The Bill was presented to the Governor on September 9, 2011. The proposed Bill, which would amend the State's Education Code, states: "... the University of California may, and the California State University may, consider race, gender, ethnicity, national origin, geographic origin, and household income, along with other relevant factors, in undergraduate and graduate admissions, so long as no preference is given. This consideration may take place if and when the university, campus, college, school, or program is attempting to obtain educational benefit through the recruitment of a multi-factored, diverse student body. It is the intent of the Legislature that this provision be implemented to the maximum extent permitted by the decision of the United States Supreme Court in *Grutter v. Bollinger* (2003) 539 U.S. 306, in which the court stated that the equal protection clause of the 14th Amendment to the United States Constitution does not prohibit a university's "narrowly tailored use of race in admissions decisions to further a compelling interest in obtaining the educational benefits that flow from a diverse student body," and in conformity with Section 31 of Article I of the California Constitution."

See: Hernandez, E., Lara, R. 2011. California Senate Bill 185: "An act to amend Section 66205 of the Education Code, relating to public postsecondary education." Introduced February 7, 2011, by California State Senator Ed Hernandez. Presented to the Governor, September 9, 2011. (September 28, 2011, http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0151-0200/sb_185_bill_20110902_enrolled.html)

Note: SB 185 also proposes a change to the University of California's admissions policies that would require UC to "...Consider the use of criteria and procedures that allow students to enroll who are otherwise fully eligible and admissible but who have course deficiencies due to circumstances beyond their control, and, when appropriate, provide that the admission requires the student to make up the deficiency."

On October 8, 2011, California Governor Edmund G. Brown Jr. vetoed Senate Bill 185. In his letter to the California State Senate, he wrote: "I am returning Senate Bill 185 without my signature. I wholeheartedly agree with the goal of this legislation. Proposition 209 should be interpreted to allow UC and CSU to consider race and other relevant factors in their admissions policies to the extent permitted under the Fourteenth Amendment of the United States Constitution. In fact, I have submitted briefs in my capacities as both Governor and Attorney General strongly urging the courts to adopt such an interpretation. But while I agree with the goal of this legislation, I must return the bill without my signature. Our

In addition to its prohibitions on the consideration of specific university admissions criteria, Regents' resolution SP-1 established an Outreach Task Force (OTF) with a charge to develop proposals to increase the eligibility rates of prospective students who are disadvantaged "economically or in terms of their social environment."¹⁶⁶ The OTF submitted a report to the Regents in 1997. The data reviewed by the OTF

constitutional system of separation of powers requires that the courts – not the Legislature – determine the limits of Proposition 209. Indeed, there is already a court case pending in the 9th Circuit against the State and the UC on the same issues addressed in this bill. Signing this bill is unlikely to impact how Proposition 209 is ultimately interpreted by the courts; it will just encourage the 209 advocates to file more costly and confusing lawsuits. Sincerely, Edmund G. Brown Jr."

Office of the Governor of California. 2011. Veto Message from Governor Edmund G. Brown Jr., October 8, 2011: Senate Bill 185 (Hernandez, 2011). (October 11, 2011, http://gov.ca.gov/docs/SB_185_Veto_Message.pdf)

See: 2012. Coalition to Defend Affirmative Action v. Brown [Complaint for Declaratory and Injunctive Relief (February 15, 2010). Coalition to Defend Affirmative Action, Integration and Immigrant Rights and Fight for Equality by Any Means Necessary (BAMN), et al, Plaintiffs-Appellants, vs. Edmund G. Brown, Jr., in his official capacity as Governor of the State of California, Regents of the University of California, and Mark Yudof, in his official capacity as President of the University of California, Defendants-Appellees, and Ward Connerly and American Civil Rights Foundation, Defendants-Intervenors-Appellees.] Docket Nos. 11-15100, 11-15241 in the United States Court of Appeals for the Ninth Circuit. Scheduled for February 13, 2012 (Monday, February 13, 2012, 9:00 a.m. Courtroom 4, 2nd Floor).

See also: Ninth Circuit Court of Appeals. 2012. Coalition to Defend Affirmative Action v. Edmund Brown Jr. Case No. 11-15100 (C.A. 9, Apr. 2, 2012). (May 12, 2012 <http://www.ca9.uscourts.gov/datastore/opinions/2012/04/02/11-15100.pdf>)

"OPINION: SILVERMAN, Circuit Judge: Plaintiffs are California high school and college students who allege that section 31 of article I of the California Constitution violates the Equal Protection Clause of the Fourteenth Amendment and causes the unfair exclusion of African American, Latino, and Native American students from higher education. They seek to enjoin Governor Edmund G. Brown and Mark Yudof, President of the University of California, from enforcing section 31. Yudof asserts that he is immune from suit under the Eleventh Amendment and that he is an improper defendant pursuant to Federal Rule of Civil Procedure 21. Although we hold that Plaintiffs' suit against Yudof is not barred by Eleventh Amendment immunity, we also hold that Plaintiffs' equal protection challenge to section 31 is precluded by Coalition for Economic Equity v. Wilson (Wilson II), 122 F.3d 692 (9th Cir. 1997), where we previously upheld the constitutionality of section 31. The district court correctly dismissed the complaint against the governor and Yudof for failure to state a claim."

166. Outreach Task Force for the Board of Regents of the University of California. 1997. *New Directions for Outreach: Report of the University of California Outreach Task Force*. (August 26, 2011 <http://www.ucop.edu/sas/research/researchandplanning/pdf/1997outreach.pdf>) p. 2. The Outreach Task Force was "comprised of 35 members, including representatives from the UC Board of Regents; faculty, staff, and student representatives from all UC campuses; representatives from business and industry; representatives from the state's major educational sectors, including K-12, California Community Colleges, and the California State University; and officials from state of California agencies, including the California Postsecondary Education Commission and the California Department of Education." p. 2

revealed that the groups of students with low rates of UC eligibility and enrollment were concentrated in the State's lowest performing schools. In response to this finding, the Task Force suggested the development of a University outreach plan that would address instruction, curriculum, advising, student engagement, and parent involvement.¹⁶⁷ While some of today's University of California outreach programs were created in the 1970s with a goal to increase the numbers of underrepresented minorities that were admitted to the University, the outreach programs that emerged from the findings of the OTF were initiated with the objective to increase the numbers of underrepresented and disadvantaged students applying for admission to the university.¹⁶⁸ In aggregate, these

167. Ibid. p. 3.

See also: University of California Office of the President, Strategic Review Panel on UC Educational Outreach, University of California Student Academic Services. 2003. *Forging California's Future through Educational Partnerships: Redefining Educational Outreach. Final Report of the Strategic Review Panel on UC Educational Outreach to the President of the University of California, February 2003*. (September 4, 2011, http://www.ucop.edu/sas/publish/edu_partnerships.pdf) p. 39. Excerpt: The OTF report "reasoned that efforts that did not address the issues of curriculum and instruction in schools where disadvantaged students were enrolled would not be able to achieve the types of large-scale changes in student opportunity needed if a diverse pool of students was to be prepared for higher education."

168. —. 2003. *Forging California's Future through Educational Partnerships: Redefining Educational Outreach. Final Report of the Strategic Review Panel on UC Educational Outreach to the President of the University of California, February 2003*. (September 4, 2011, http://www.ucop.edu/sas/publish/edu_partnerships.pdf) p. 39.

"The Outreach Task Force (1997) defined "educational disadvantage" broadly to include not only economic forms of disadvantage such as low family income, but other forms of educational and social disadvantage including but not limited to: 'attending a school with a limited college preparatory curriculum; being the first generation in one's family to attend college; living in a community with low college-going rates; enrollment in a school with below average SAT-ACT exam scores; or belonging to a group with below-average UC eligibility and enrollment rates.' The phrase "underrepresented students" refers to several ethnic minority groups — African American, American Indian and Chicano/Latino — whose UC eligibility rates are below the 12.5 percent statewide rate mandated for all students in the Master Plan for Higher Education (1960)." Definitions for the terms "educational disadvantage" and "underrepresented students" from: *ibid.* p. 6, footnote 2.

"Historically the University of California has classified as "underrepresented" students from groups that collectively achieved eligibility for the University at a rate below 12.5 percent. These include African Americans, American Indians, and Chicano/Latinos and the terms "underrepresented" and "underrepresented minority" ...denote students from these groups." Definition of "underrepresented" from: University of California Office of the President, Student Academic Services. 2003. *Undergraduate Access to the University of California After the Elimination of Race-Conscious Policies*. (September 1, 2011, http://ucop.edu/outreach/aa_finalcx%202.pdf) Page 1, footnote 3.

"At the undergraduate level, a group is said to be "underrepresented" when the proportion of students from this group within UC's eligibility pool or student body is substantially

University of California systemwide outreach programs are known as Student Academic Preparation and Educational Partnerships (SAPEP), and include the following: University partnerships with elementary and secondary schools to provide student academic preparation programs; programs at community colleges to articulate courses that satisfy UC subject matter requirements; informational outreach (how to qualify for college); programs to assist admitted University undergraduate students, and students enrolled in graduate, and professional schools; and research performed by University Faculty for SAPEP program evaluation.¹⁶⁹ The programs that comprise SAPEP begin at the preschool or kindergarten level and extend through elementary school, secondary school, community college, and university undergraduate and graduate programs (outreach program ranges are abbreviated as P-20, K-20, and K-12). In 2006, UC's systemwide SAPEP programs, housed at the University of California Office of the President, served more than 117,000 students, nearly 100,000 teachers, and 377 California schools.¹⁷⁰ The

less than its proportion among recent high school graduates. Although the concept of underrepresentation often is associated with racial and ethnic minorities, in fact the concept applies to socioeconomic groups (e.g., low-income students) and geographic groups (i.e., rural students) as well." Definition of "underrepresented" from: Outreach Task Force for the Board of Regents of the University of California. 1997. *New Directions for Outreach: Report of the University of California Outreach Task Force*. (August 26, 2011, <http://www.ucop.edu/sas/research/researchandplanning/pdf/1997outreach.pdf>) Page 10, footnote 18.

"Disadvantaged students are defined as those from low-income families, those whose parents have not earned a college degree, and those who come from underrepresented minorities (URMs). These are the students who historically, and today as well, have had less access to higher education and less likelihood of graduating from college once admitted." Source of definition of "disadvantaged students": University of California Office of the President. 2011f. *University of California Annual Accountability Report 2011*. (August 5, 2011, <http://www.universityofcalifornia.edu/regents/regmeet/jul11/11.pdf>). Also: www.universityofcalifornia.edu/accountability) Page 1.

169. Douglass, J. A. 2007. *The Conditions for Admission: Access, Equity, and the Social Contract of Public Universities*. Palo Alto, California: Stanford University Press pp. 193-195. University of California Office of the President, Office of the Vice President of Student Affairs. 2008. *A Report to the Legislature on Student Academic Preparation and Educational Partnerships for the 2006-07 Academic Year*. (August 23, 2011, [http://www.ucop.edu/sas/research/researchandplanning/pdf/SAPEPFundsandOutcomesLegReport\(UC\)2008.pdf](http://www.ucop.edu/sas/research/researchandplanning/pdf/SAPEPFundsandOutcomesLegReport(UC)2008.pdf)). Ibid. p. 60.

170. University of California. 2011b. "UC Academic Preparation: Expanding Educational Horizons". (August 23, 2011, <http://www.universityofcalifornia.edu/collegeprep/welcome.html>) Excerpt from UC College Prep and Outreach webpage: "Participants in UC academic preparation programs now account for 30 percent of African American UC freshmen and 33 percent of Latino UC freshmen."

SAPEP mission statement describes the program:

“The goal of Student Academic Preparation and Educational Partnerships (SAPEP) programs is to work in partnership with K-12, the business sector, community organizations and other institutions of higher education to raise student achievement levels generally and to close achievement gaps between groups of students throughout the K-20 pipeline so that a higher proportion of California’s young people, including those who are first-generation, socioeconomically disadvantaged and English-language learners, are prepared for postsecondary education, pursue graduate and professional school opportunities and/or achieve success in the workplace.”¹⁷¹

The University of California’s SAPEP programs are examples of late twentieth-century efforts to coordinate university admission requirements with elementary and secondary education. For historical comparison, in our review of the early history of Dartmouth College we found that eighteenth-century Dartmouth admitted disadvantaged charity students whose parents were financially unable to engage a private tutor to prepare their children for admission to college. Dartmouth provided college scholarships and offered remedial courses to prepare those students for college study. More than 240 years later, in California, a state with long-established public elementary and secondary school systems, we still find schools with programs inadequate to prepare students to meet university admission requirements.¹⁷²

In 1856, California’s first two public high schools were established, one in San Francisco and the other in Sacramento. No additional public high schools were established in California until 1862.¹⁷³ In 1869, the year following the University of California’s founding, The Regents purchased buildings in Oakland and proposed the founding of a Uni-

171. University of California Office of the President, Office of the Vice President, Education Partnerships. 2010. University Of California Student Academic Preparation And Educational Partnerships: A Report to the Legislature on Student Academic Preparation and Educational Partnerships for the 2008-09 Academic Year. (August 26, 2011, http://www.ucop.edu/budget/legreports/0910/documents/sapep_funds_outcomes.pdf).

172. See: Goldin, C., Katz, L. F. 2008. *The Race Between Education and Technology*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press., Appendix B, p. 367: “In the nineteenth and early twentieth centuries, when the public high school system was in its infancy, many colleges and universities trained secondary students. These preparatory departments were founded to ensure that college students had the appropriate training.”

173. Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. p. 6.

versity preparatory school. The Faculty, in their opposition to a proposed “fifth class” of students, argued that academic preparation for university admission is the responsibility of the state’s high schools. The following year, the Regents “addressed the Academic Senate upon the necessity of ‘popularizing’ the institution, by the establishment of a fifth class (preparatory)...to which...the Board of Regents had committed themselves.”¹⁷⁴ The Faculty yielded to the Regents’ authority and the preparatory school was established, only to be closed in 1872 for problems related to student discipline, non-payment of tuition, and the sense that a preparatory school, which was established over the protests of the Faculty, was not appropriate to the University.¹⁷⁵ The University of California’s 1871 Register lists instructors and courses taught in the Fifth Class, or Preparatory Department. Preparatory courses included English grammar, algebra and geometry, Latin and Greek, history and ancient languages, French, Spanish, German, penmanship, and physiology. To gain admission to the Fifth Class, candidates were required to be at least fourteen years old and satisfactorily pass an examination in arithmetic, English grammar, geography, and United States history.¹⁷⁶

Eugene W. Hilgard (1833-1916), Professor of Agricultural Chemistry, Dean of the College of Agriculture at UC Berkeley, and Director of the Agricultural Experiment Station from 1875-1905, described the

174. Ibid. pp. 54-56. Stadtman quotes Regent Dwinelle’s remarks as reported in “Minutes of the Academic Senate, August 29, 1870, in ‘Record of the Academic Senate,’ p. 16.”

175. Ibid. p. 56. Stadtman cites: “Report from Henry Durant to the Board of Regents, December 6, 1870 (in Regents, ‘Correspondence and Papers,’ Box 1, Folder 52) University of California Archives, Berkeley.”

Also: Herman Adolph Spindt (1893-1960), “A History of the Relations of the University of California and the Public Schools of California, 1872-1945” (unpublished dissertation, Ph.D. in Education, University of California, 1946) p. 9.

Note: Spindt’s dissertation is in the collection of the UC Berkeley Library. In 1946 Spindt became the University of California’s Director of Admissions. He was appointed Lecturer in Education in 1947, and taught a graduate course, “The Junior College,” during the next nine years. In 1956 he was assigned the additional responsibility of Director of the Office of Relations with Schools.

See: University of California (System) Academic Senate. 1961. 1961 *University of California: In Memoriam*. (October 13, 2011, <http://content.cdlib.org/view?docId=hb2t1nb146&brand=calisphere>) pp. 93-96.

176. University of California. 1871. *Register of the University of California, 1871*. Oakland, California. pp.17, 37.

predicament of students that were unprepared for coursework at the Morrill Act colleges:

“To speak plainly, some of these institutions had to wait a year or two for the first student in the special departments; not counting a few cautious nibbles on the part of raw country lads, who needed but a short time to find out that their place was not there, the preparation obtainable in the country grammar school being quite inadequate to enable them to pursue understandingly the courses of instruction offered.”¹⁷⁷

In the late nineteenth century, the University of California reached out to the State’s secondary schools to develop preparatory curriculum that would meet its admissions requirements. But the problem was deeper than what could be corrected by curricular improvements. In his 1881-82 Report to the Regents, UC President William Thomas Reid discussed the relation between high schools and the University. He expressed dismay that “the new [California] Constitution has withdrawn all state support from high schools,” and urged the establishment of taxpayer-supported schools that would prepare students to enter the University.¹⁷⁸ He said, “Our boasted free University is free to those who can afford to pay for preparatory education, but practically cut off from those who are not able to incur this preliminary expense—the very persons whose education it is of especial interest to the State to secure.”¹⁷⁹ President Reid did not suggest that the boundaries of the Uni-

177. Hilgard, E. W. 1882. “Progress in Agriculture by Education and Government Aid”. *The Atlantic Monthly* 49: 531-542. p. 536.

178. Reid, W. T. 1881. *Report of the President for the Board of Regents [of the University of California], 1881-82*. Sacramento: State Office of Printing. Pp. 13-14. Note: The version of the California Constitution referenced by Reid: California Legislature. 1879. *Constitution of the State of California*. The Statutes of California passed at the Twenty-third Session of the Legislature, 1880. Sacramento. State Office: J.D. Young, Supt. State Printing. Facsimile available at California State Archives. (August 30, 2011, <http://www.sos.ca.gov/archives/collections/1879/archive/1879-constitution.pdf>) Article IX, Section 6.

179. Reid, W. T. 1881. *Report of the President for the Board of Regents [of the University of California], 1881-82*. Sacramento: State Office of Printing. Pp. 13-14. Note: University of California President William Thomas Reid earned the A.B. degree from Harvard in 1868. “From 1868-71, he was principal of the Newport, Rhode Island, High School, then became assistant headmaster of the Boston Latin School and studied at Harvard for the M.A. degree, which he obtained in 1872. After two years as superintendent of the public schools of Brookline, Massachusetts, he came to California in 1875 at the invitation of Horatio Stebbins to be principal of the Boys’ High School in San Francisco. While in this position, he was elected President of the University in June, 1881. [...] Reid strengthened

versity's administrative and intellectual structures might be extended to incorporate elementary and secondary instruction, but that it had been a mistake for the state to defund its public preparatory schools. The original text of Article IX, Section 6 of the 1879 Constitution of California that led to UC President Reid's complaint, declared:

"The public school system shall include primary and grammar schools, and such high schools, evening schools, normal schools, and technical schools as may be established by the Legislature, or by municipal or district authority; but the entire revenue derived from the State School Fund, and the State school tax, shall be applied exclusively to the support of primary and grammar schools."¹⁸⁰

From its founding, both women and men were encouraged to apply for admission to the University of California. The terms of admission to the University for women were identical to those of men.¹⁸¹ The 1872 admissions examination for candidates applying to the University of California's Colleges of Arts included the following areas of study: higher arithmetic, algebra, English Grammar, geography, and history of the United States. Candidates applying for admission to the College of Letters were required to pass the examination for the Colleges of Arts in addition to an examination in the following studies: Greek grammar, Latin grammar, Caesar (Gallic War: four books), Virgil (six books of the Aeneid), Cicero (six orations), and Xenophon's Anabasis (three books).¹⁸²

The 1871 University of California Register lists 153 students enrolled in the regular course of studies; 34 students from other institutions at-

the position of the University by raising the admission requirements to equal those of eastern universities, and by establishing the accreditation system by which graduates of those high schools which met the requirements of the University were admitted without examination. This system not only improved relations between the University and the public schools, but raised the standards of high school education throughout the state." Excerpt from: Stadtman, V. A., Centennial Publications Staff. 1967. *The Centennial Record of the University of California*. (April 9, 2011, <http://content.cdlib.org/view?docId=hb4v19n9zb&brand=calisphere>) p.13.

180. Legislative Counsel Bureau, California Legislature. 1917. *Constitution of the State of California and Summary of Amendments*. Sacramento, California: California State Printing Office. p. 84.

181. University of California. 1871. Register of the University of California, 1871. Oakland, California. p. 37.

182. Ibid. p. 36

tending chemistry lectures by special permission; 6 students attending English Literature lectures by special permission; 19 students attending Geology lectures by special permission; and 262 students attending the Fifth, or Preparatory Class. In addition to the regular course of study, the University provided partial courses in each of its Colleges for students that chose not to pursue a full course of studies.¹⁸³ The 1871 University of California Register states:

“...any resident of California, of approved moral character, has ‘the right to enter himself in the University as a student at large, and receive tuition in any branch or branches of instruction, at the time when the same are given in the regular course;’ provided his preparatory studies have been such as to qualify him to pursue the selected branches; and provided, further, he selects a sufficient number of branches, the number being designated by the Faculty.”¹⁸⁴

In 1884, the Regents adopted an admissions policy for the University that allowed graduates of public high schools that had been accredited by University Faculty to be admitted to the University without examination. This arrangement, which included high schools in Oakland, San Francisco, Berkeley, Alameda, Sacramento, and Stockton, was not without problems. It was difficult to maintain the necessary standard of scholarship at the accredited schools, and those students that passed the University’s entrance examination without conditions were superior to those who were admitted by high school diploma only.¹⁸⁵ A few years later, in 1888, UC President Horace Davis said, “Nothing would tend so much to increase the number of students, and raise their scholarship, as the improvement of the preparatory schools now existing, and the establishment of new ones. The lack of these is one reason why the large majority of students come from around the bay. It is because the schools are so much better there than anywhere else, except in Stockton and Sacramento.”¹⁸⁶ In 1889, members of the Faculty

183. *Ibid.* pp. 14-16, 25, 33-35.

184. *Ibid.* p. 34.

185. —. 1888. *Biennial Report of the President of the University on Behalf of the Board of Regents, to His Excellency the Governor of the State*. Sacramento: State Printing Office. pp. 8-9.

186. University of California, Davis, H. 1889. *Biennial Report of the President of the University on Behalf of the Board of Regents to His Excellency the Governor of the State*. Sacramento: State Printing Office. p. 12.

of the University of California met with representatives of high schools from the central parts of the state in a series of conferences, with a main objective to adopt a high school curriculum that would meet the requirements of admission to the University.¹⁸⁷ In 1902, the text of Section 6 of Article IX of the Constitution of California was amended to provide a source of funding for the State's public high schools:

Article IX, Section 6: "The public school system shall include primary and grammar schools, and such high schools, evening schools, normal schools, and technical schools as may be established by the Legislature, or by municipal or district authority. The entire revenue derived from the State School Fund, and from the general State school tax, shall be applied exclusively to the support of primary and grammar schools; but the Legislature may authorize and cause to be levied a special State school tax for the support of high schools and technical schools, or either of such schools, included in the public school system, and all revenue derived from such special tax shall be applied exclusively to the support of the schools for which such special tax shall be levied." [Adopted November 4, 1902]¹⁸⁸

By 1927, a change occurred in the University admissions system. At that time, essential courses were omitted from the State Board of Education's list of university preparatory subjects for high schools, and Principals of University accredited high schools were often pressured by parents and local boards of education to provide recommendations for marginal students that were unprepared for university work. To protect the reputation of their high schools, the principals decided to return the responsibility for determining University admission to the

187. University of California. 1890. *Biennial Report of the President of the University on Behalf of the Board of Regents, to his Excellency the Governor of the State*. Sacramento: State Printing Office. pp. 12-13.

188. Legislative Counsel Bureau, California Legislature. 1917. *Constitution of the State of California and Summary of Amendments*. Sacramento, California: California State Printing Office. pp. 83-84.

In 1910, Article XIII, Section 14(e) of the Constitution of California was amended. It required the Legislature to first set aside funds for the state's school system: "Out of the revenues from the taxes provided for in this section, together with all other state revenues, there shall be first set apart the moneys to be applied by the State to the support of the public school system and the State University. In the event that the above named revenues are at any time deemed insufficient to meet the annual expenditures of the State, including the above named expenditures for educational purposes, there may be levied, in the manner to be provided by a law, a tax, for State purposes, on all the property in the State including that classes of property enumerated in this section, sufficient to meet the deficiency."

—. *Ibid.* p. 164.

Table 9.1 (Part 1/7) University of California Student Academic Preparation and Educational Partnerships (SAPEP) Programs, Year 2006-07 ¹	
Program	Description
ArtsBridge	ArtsBridge America, a network of university schools of art and education, is a research-based school/university partnership in arts education dedicated to providing high-quality arts instruction to K-12 schoolchildren. "The arts are a critical component of education - they provide an alternative means to reach out to disadvantaged learners, particularly those with language acquisition delays." ArtsBridge America is headquartered on the campus of University of California Irvine. The University of California's Irvine campus developed the first ArtsBridge program in 1996. (2)
ASSIST	ASSIST (Articulation System Stimulating Inter-institutional Student Transfer): "a computerized student-transfer information system that can be accessed over the World Wide Web. It displays reports of how course credits earned at one California college or university can be applied when transferred to another." (3)
Community College Articulation Community College Transfer Programs	The University of California has transferable course agreements (TCA) with all California community colleges that specify the courses that will receive baccalaureate degree credit from UC. All California community colleges also have agreements with UC campuses that specify which of the transferable courses may be used to meet various general education/breadth and major preparation requirements. (4)
EAOP (Early Academic Outreach Program)	EAOP contributes to the University of California's Student Academic Preparation and Educational Partnerships (SAPEP) mission to raise student achievement and close achievement gaps. (5)

Table 9.1
(Part 2/7)

University of California
Student Academic Preparation and Educational Partnerships
(SAPEP) Programs, Year 2006-07 ¹

Program	Description
Graduate and Professional School Academic Preparation	<p>“The University of California Graduate and Professional School (G&PS) academic preparation programs identify high-caliber educationally and/or economically disadvantaged students and prepare them for careers as future academics, researchers, specialists, practitioners and/or leaders. Typical academic and professional development activities include tutoring, mentoring, advising, coursework, and standardized test preparation.” (6)</p>
<p>K-20 Intersegmental Alliances (K-20 refers to years of education from kindergarten through university graduate programs)</p>	<p>These Alliances are Partnerships with local high schools and their feeder schools intended to strengthen academic programs. The Center for Educational Partnerships at UC Berkeley improves academic achievement and expands post-secondary educational opportunities for students who face significant barriers to college. UC Berkeley’s outreach activities and programs mission includes the following:</p> <ul style="list-style-type: none"> —To create strategies to make the University’s resources more available to the community at large and to our educational partners. —To provide leadership in research, evaluation and practice that advances knowledge about how and why students excel. —To work with K-12, community colleges, the CSU system, and other public and private sector partners to address significant educational issues. —To address the challenge of diversity by increasing the enrollment of African American, Chicano/Latino, and Native American students at Berkeley and throughout the University of California system. (7)

Table 9.1 (Part 3/7) University of California Student Academic Preparation and Educational Partnerships (SAPEP) Programs, Year 2006-07 ¹	
Program	Description
P-20 Regional Intersegmental Alliances	“P-20 [preschool through graduate school] Regional Intersegmental Alliances are state- and University-funded efforts at each UC campus designed to raise student achievement levels generally and to prepare students for post-secondary education and the workplace by increasing the capacity of P-20 institutions to address barriers to educational equity.” (8)
MESA (Mathematics, Engineering, Science Achievement) — MESA Community College Program (MCCP) — MESA High School Program (MSP)	The MESA program was founded in 1970 at Oakland Technical High School. — MCCP provides science, technology, engineering and math academic development to educationally disadvantaged community college students so they will excel academically and transfer to four-year institutions in calculus-based majors. (9) — MSP assists students at middle and senior high schools (and some elementary schools) in math and science. MSP administers partnerships with teachers, administrators, school district officials, schools and industry representatives to provide academic enrichment. (10)
Preuss School at UC San Diego	The Preuss School, housed in a facility on the UCSD campus, is a middle and high school (grades 6 –12) providing an intensive college prep education for motivated low-income students who will become the first in their families to graduate from college. The Preuss School, jointly chartered by the San Diego Unified School District and the University of California, San Diego, opened in 1999. (11)

Table 9.1
(Part 4/7)

University of California
Student Academic Preparation and Educational Partnerships
(SAPEP) Programs, Year 2006-07 ¹

Program	Description
<p>Puente Project: Community College and High School Programs</p>	<p>Puente was founded in 1981 at Chabot College in Hayward, California, to address low rates of academic achievement of Mexican American and Latino students. The program has expanded to 33 high school and 59 community college sites throughout the state. Puente staff train high school and community college instructors and counselors to implement a program of writing and language instruction, academic counseling, and mentoring by members of the community. Puente's state headquarters, located at the University of California Office of the President, has primary responsibility for overall program planning, coordination and administration, including fiscal and policy responsibilities for the program, all program trainings, and data management, analyses and reporting. UC serves as the fiduciary agent and steward, managing all Project funds through a UC account. The Puente Project is funded through state funds appropriated by the University of California, UC Office of the President, and the California Community Colleges Chancellor's Office, which serve as co-sponsors for the program. Corporate, foundation, and individual donors also support Puente. (12)</p>

**Table 9.1
(Part 5/7)**

**University of California
Student Academic Preparation and Educational Partnerships
(SAPEP) Programs, Year 2006-07 ¹**

Program	Description
<p>UCCP (UC College Prep Online)</p>	<p>A statewide program of the University of California, UCCP was established in 1999 “in response to a state mandate to provide equity in access to advanced placement courses for academically disadvantaged students in low performing schools.” UCCP publishes UC-approved college preparation online courses of instruction for license to California schools without cost. Courses offered include: algebra, biology, calculus, environmental science, physics, U.S. history, and U.S. government and politics.</p> <p>The courses include text, voiced narrative, video, games, and photos; but do not include grades, course credit, or classroom instruction presented by a teacher. “University of California College Prep is overseen by the University’s Office of the President, by the enrollment management unit of the Student Affairs division of UC Santa Cruz, and by an Advisory Board of educators, administrators, and others expert in educational standards and policy, teaching and educational technology.”</p> <p>New courses in production include: Pre-Algebra, Algebra II, Pre-Calculus, College Prep Statistics, and Computer Science. In addition, UCCP is developing courses for iPad, iPod, cell phones, game players, and other portable devices. (13)</p>

Table 9.1
(Part 6/7)

University of California
Student Academic Preparation and Educational Partnerships
(SAPEP) Programs, Year 2006-07 ¹

Program	Description
UCE (University Community Engagement)	“University-Community Engagement (UCE), headquartered at the University of California Office of the President, supports UC campus-community collaborations that raise student achievement, close achievement gaps, and increase college-going rates among low-income and disadvantaged students. UCE funds and supports campus-based collaborations and serves as an information clearinghouse for community leaders, UC faculty and administrators, educators and policymakers on programs, resources and research on community partnership and collaboration. The University’s longstanding academic preparation programs and emerging P-20 partnership efforts provide a broad range of services to students, their teachers, families and school administrators.” (14)
UC Links University-Community Links	A state-funded program, University-Community Links (UC Links) is a statewide faculty initiative that supports a network of after-school programs for K-12 youth in low-income, diverse communities throughout California. Sponsored by eight university campuses, these programs provide technology-based and hands-on learning activities through formal and informal learning activities guided by university student mentors. (15)

Table 9.1
(Part 7/7)

University of California
Student Academic Preparation and Educational Partnerships
(SAPEP) Programs, Year 2006-07 ¹

Sources for Table 9.1:

(All sources accessed August 2011)

- (1) The programs listed in this Table were selected from those included in “Table 1” in A Report to the Legislature on Student Academic Preparation and Educational Partnerships for the 2006-07 Academic Year, page 8.
[http://www.ucop.edu/sas/research/researchandplanning/pdf/SAPEPFundsandOutcomeLegReport\(UC\)2008.pdf](http://www.ucop.edu/sas/research/researchandplanning/pdf/SAPEPFundsandOutcomeLegReport(UC)2008.pdf)
- (2) ArtsBridge America at the University of California, Irvine.
<http://www.artsbridgeamerica.com/whoweare.php>
- (3) ASSIST. <http://www.assist.org/web-assist/welcome>.
- (4) University of California Admissions.
<http://www.universityofcalifornia.edu/admissions/>
- (5) University of California Office of the President, EAOP.
<http://www.ucop.edu/eaop/about/>
- (6) University of California Office of the President: Office of the President of Student Affairs. 2008. “A Report to the Legislature on Student Academic Preparation and Educational Partnerships for the 2006-07 Academic Year. Page 40.
- (7) Center for Educational Partnerships, UC Berkeley.
<http://cep.berkeley.edu/>
- (8) P-20 Regional Intersegmental Alliances. University of California Office of the President, Division of Academic Affairs.
<http://www.ucop.edu/edpartners/partnerships.html>
- (9) University of California Office of the President. MESA.
<http://mesa.ucop.edu/about/history.html>
<http://mesa.ucop.edu/programs/mesaccpp.html>
- (10) University of California Office of the President. MESA.
<http://mesa.ucop.edu/programs/schoolprogram.html>
- (11) The Preuss School.
<http://preuss.ucsd.edu/about/fact-sheet.html>
- (12) The Puente Project.
<http://www.puente.net/>
- (13) UCCP: <http://www.uccp.org/>. UCCP Labs:
<http://www.uccplabs.org/>
- (14) University-Community Engagement (UCE).
<http://www.ucop.edu/uce/welcome.html>
- (15) University-Community Links (UC Links).
http://www.uclinks.org/what/what_main.html

University Faculty. To guide the admissions process, a list of required preparatory subjects was adopted.¹⁸⁹ In 1936, the University established an Office of Relations with Schools. This office was responsible for assisting the state's secondary schools "in whatever ways may be found desirable."¹⁹⁰

State resources were first devoted to University of California outreach programs in 1975, through the terms of a bill introduced by State Assembly member Kenneth Meade, often referred to as the "Meade Bill."¹⁹¹ Section One of the bill appropriated \$1.1 million to the Regents of the University of California "for education opportunity programs and other outreach and support programs designed to increase the number of disadvantaged students in the university and assist in their retention."¹⁹² The bill was aimed at the University, not the State's elementary and secondary schools, and required a matching monetary contribution from the University. Section 2 of the 1975 Act states:

"It is the intent of the Legislature, by passage of this act, to provide funds to better enable the university to increase the number of disadvantaged students in its programs and, in so doing, to eliminate the underrepresentation of such students in university programs as compared with the pool of graduating high school seniors."¹⁹³

Many of the University's current SAPEP programs engage the University in elementary and secondary level education programs, extending the University's intellectual and administrative structures to levels below those of an institution of higher education (See Table 9.1). But as defined

189. Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company.

190. Ibid. Stadtman (1970) cites the following: Association of California Secondary School Principals, *Bulletin*, June 1937, p. 12, as quoted in Herman Adolph Spindt (1893-1960), "A History of the Relations of the University of California and the Public Schools of California, 1872-1945" (unpublished dissertation, Ph.D. in Education, University of California, 1946), p. 191.

191. See: University of California Office of the President, Division of Business Operations. 2011. *2011-12 Budget for Current Operations, Budget Detail*. (July 21, 2011, <http://www.ucop.edu/budget/rbudget/201112/2011-12-budget-detail.pdf>) p. 67.

192. State of California. 1975. *An Act relating to higher education opportunity programs, making an appropriation therefor, and declaring the urgency thereof, to take effect immediately*. Primary author: Kenneth A. Meade (Democratic). A. B. No. 2412 [Meade]. Chapter 1017. Chaptered September 23, 1975. *Statutes of California and Digests of Measures, 1975*. Volume 1. Compiled by George H. Murphy. Sacramento. pp. 2404-2405.

193. Ibid. p. 2405.

by the California Education Code (which includes elements of the *California Master Plan for Higher Education* as codified by the *Donahoe Higher Education Act of 1960*), the University's responsibility to provide instruction is limited to particular aspects of higher education:

"The **University of California** may provide undergraduate and graduate instruction in the liberal arts and sciences and in the professions, including the teaching professions. It shall have exclusive jurisdiction in public higher education over instruction in the profession of law and over graduate instruction in the professions of medicine, dentistry, and veterinary medicine. It has the sole authority in public higher education to award the doctoral degree in all fields of learning, except that it may agree with the California State University to award joint doctoral degrees in selected fields. The University of California shall be the primary state-supported academic agency for research."¹⁹⁴

For comparison, the responsibilities of the California State University and the California Community Colleges, as defined by the California Education Code, are as follows:

"The **California State University** shall offer undergraduate and graduate instruction through the master's degree in the liberal arts and sciences and professional education, including teacher education ... The primary mission of the California State University is undergraduate and graduate instruction through the master's degree."¹⁹⁵

194. —. 2011f. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>). California Education Code 66010.4.(c).

Note: Sections of the California Master Plan for Higher Education, as codified by the Donahoe Higher Education Act of 1960, are incorporated into the California Education Code. **Note:** The California Education code defines the responsibilities of the elementary and secondary schools, the California Community Colleges, and the CSU using the mandatory "shall," but uses the permissive "may" in defining the responsibilities of UC. The command that is conveyed by the verb "shall" would interfere with UC's autonomy.

195. —. 2011e. California Education Code, Section 66010.1-66010.8 (August 3, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) Section 66010.4.(b)

Note: The California State University (CSU) may offer approved joint doctoral degrees with UC. See: —. 2011f. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>). Section 66024.

Note: Two exceptions were made to the Donahoe Higher Education Act to permit CSU to

“The **California Community Colleges** shall, as a primary mission, offer academic and vocational instruction at the lower division level for both younger and older students, including those persons returning to school. Public community colleges shall offer instruction through but not beyond the second year of college. These institutions may grant the associate in arts and the associate in science degree ... In addition to the primary mission of academic and vocational instruction, the community colleges shall offer instruction and courses to achieve all of the following: The

offer independent doctoral degrees in education and physical therapy.

See: California Legislature. 2005. Senate Bill No. 724. *Statutes of California 2005*, Chapter 269. An act to add Article 4.5 (commencing with Section 66040) to Chapter 2 of Part 40 of the Education Code, relating to public postsecondary education. [California State University: Doctor of Education degrees] [Approved by Governor September 22, 2005. Filed with Secretary of State September 22, 2005.]. (June 4, 2012, http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_0701-0750/sb_724_bill_20050922_chaptered.pdf)

State of California. 2005. California Education Code Section 66040-66040.7 [California State University is authorized to award the Doctor of Education (Ed.D.) degree]. (June 4, 2012, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66040-66040.7>)

California Legislature. 2010. Assembly Bill No. 2382. Chapter 425, *Statutes of 2010*. An act to add Article 4.7 (commencing with Section 66042) to Chapter 2 of Part 40 of Division 5 of Title 3 of, and to repeal Section 66042.3 of, of the Education Code, relating to public postsecondary education [California State University: Doctor of Physical Therapy degrees]. (June 4, 2012, http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_2351-2400/ab_2382_bill_20100928_chaptered.pdf)

State of California. 2010. California Education Code Section 66042-66042.3 [the California State University may award the Doctor of Physical Therapy (D.P.T.) degree]. (June 4, 2012, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66042-66042.3>)

The Academic Senate of the University of California (systemwide) oversees the establishment of new graduate programs. For information on the establishment of new joint doctoral programs, see: University of California Office of the President, Academic Planning Council. 2011. *Compendium: Universitywide Review Processes for Academic Programs, Academic Units, & Research Units*. (August 5, 2011, http://www.ucop.edu/ucophome/coordrev/ucpolicies/documents/compendium_jan2011.pdf). II.B.3. Joint Graduate Degree Programs. Page 17-18: “The review process for new joint degree programs is the same as that for new graduate programs generally (see Section II.B.1 above). Over time, a basic philosophy of joint programs has emerged within the University. In particular, joint doctoral programs (JDPs) are designed to combine intellectual and physical resources to be beneficial to campuses from both systems and to meet a need not currently addressed within the University. Students enrolled in such programs take advantage of the combined resources and disciplinary expertise. It is expected that the research interests and program strengths of the proposing academic departments complement one another in synergistic fashion rather than duplicate existing offerings.”

For background and discussion of issues related to joint UC/CSU doctoral programs, see: UC Task Force on Planning for Professional and Doctoral Education. 2008. *Report of the Subcommittee on the Professional Doctorate of the UC Task Force on Planning for Professional and Doctoral Education*. (June 4, 2012, http://www.universityofcalifornia.edu/senate/underreview/MW2DivChairs_PDPE%20Report_Review.pdf)

provision of remedial instruction for those in need of it ...”¹⁹⁶

As defined by the California Education Code, the instructional responsibilities of the State’s public elementary and secondary schools support those of the State’s segments of public higher education by providing preparatory instruction:

“The **public elementary and secondary schools** shall be responsible for academic and general vocational instruction from kindergarten and grades 1 to 12, inclusive, including preparation of pupils for postsecondary instruction, future participation in California’s economy and society, and adult instruction to the extent of state support.”¹⁹⁷

The UC College Prep (UCCP) outreach program, one of the University’s SAPEP programs, claims that it “does not provide instruction.”¹⁹⁸ It’s possible that this claim is being made in relation to the term “instruction” as it appears in the California Education Code’s descriptions of the instructional responsibilities and limitations of the State’s education segments. UCCP produces and licenses online interactive college preparatory courses developed by University Faculty.¹⁹⁹ The California Education Code says that the University of California “may provide undergraduate and graduate instruction in ... the teaching professions.”²⁰⁰ But it does not direct the University of California to develop, or offer courses (or instruction) at the elementary and secondary educational levels. Responsibilities related to elementary and secondary education instruction rest with the California Department of Education, the State Superintendent of Public Instruction, the California State Board of Ed-

196. State of California. 2011e. California Education Code, Section 66010.1-66010.8 (August 3, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) Section 66010.4.(a)(1), and 66010.4.(a)(2)(A)

197. *Ibid.* Section 66010.3

198. University of California. 2011a. UC College Prep: About the Courses. (August 23, 2011, <http://www.uccp.org/index.php/about-the-curriculum>)

199. *Ibid.*

200. State of California. 2011e. California Education Code, Section 66010.1-66010.8 (August 3, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>). Section 66010.4.(c)

cation,²⁰¹ and the State's elementary and secondary school districts:²⁰²

"The California Department of Education (CDE)...and the State Superintendent of Public Instruction are responsible for enforcing education law and regulations; and for continuing to reform and improve public elementary school programs, secondary school programs, adult education, some preschool programs, and child care programs. The CDE's mission is to provide a world-class education for all students, from early childhood to adulthood. The CDE serves our state by innovating and collaborating with educators, schools, parents, and community partners, preparing students to live, work, and thrive in a highly connected world."²⁰³

The University of California has characterized its SAPEP programs as being a form of public service consistent with its mission as a land-grant institution.²⁰⁴ The California Education Code offers language to support a public service basis for the SAPEP programs:

201. The State Board of Education (SBE), established by statute in 1852 and by amendment to the California Constitution in 1884, is the governing and policy-determining body of the California Department of Education. The State Superintendent of Public Instruction is the secretary and executive officer of the SBE. The State Board of Education "adopts rules and regulations for its own government, the government of its appointees, and the government of the state's public schools." See: California Department of Education. 2011a. "Outreach Brochure: What is the Curriculum Development and Supplemental Materials Commission?" (September 8, 2011, <http://www.cde.ca.gov/be/cc/cd/documents/ccoutreachmay2009.pdf>)

202. —. 2011b. "District/School Boundaries". (September 8, 2011, <http://www.cde.ca.gov/re/di/fq/distschilboundaries.asp>) Excerpt from webpage: "California's educational system relies on local control for the management of school districts on the theory that those closest to the problems and needs of each individual district are the best able to make appropriate decisions on behalf of the district. In allocating their resources among the schools of the district, school district governing boards and district administrators must follow the law, but they also have the additional tough job of setting the educational priorities for their schools and weighing the importance and urgency of all of their education needs." **Note:** In 2009-2010, there were a total of 963 California School Districts, comprised of 344 unified districts, 546 elementary districts, and 83 high school districts. See: *ibid.* "District Organization Handbook," p. 12.

203. —. 2011c. *Role & Responsibilities: Brief description of the California Department of Education.* (September 4, 2011, <http://www.cde.ca.gov/index.asp>)

204. The Regents of the University of California. 2005b. Regents Policy 2106: Policy Affirming Engagement in the Preschool through Postsecondary Education System, as Fundamental to the University of California Mission as a Land Grant Institution. (September 1, 2011, <http://www.universityofcalifornia.edu/regents/policies/2106.html>) Regents Policy 2106 was approved by the Board on January 21, 2005.

See also: University of California Office of the President, Division of Business Operations. 2011. *2011-12 Budget for Current Operations, Budget Detail.* (July 21, 2011, <http://www.ucop.edu/budget/rbudget/201112/2011-12-budget-detail.pdf>) pp. 66-70.

“The mission of the public segments of higher education shall also include a broad responsibility to the public interest ... As part of this responsibility, the public ... segments are encouraged to support programs of public service and to involve faculty and students in these programs.”²⁰⁵

The University’s land-grant public service rationale for its SAPEP programs is found in Regents Policy 2106 (“Policy Affirming Engagement in the Preschool through Postsecondary Education System, as Fundamental to the University of California Mission as a Land Grant Institution”), which states:

“As a land grant institution with a mission of teaching, research, and public service, the University of California is committed to excellence and equity in education for all of California’s students to secure the social well-being and economic prosperity of the individual and the state. The University affirms that a fundamental part of its mission is to engage in efforts to promote the academic achievement and success of all students, including students who, because they are educationally disadvantaged and underrepresented, therefore need additional assistance.”²⁰⁶

As part of the Governor’s Budget for 2011-12, the State of California Department of Finance provides a list of University of California Program Descriptions. The programs on the list include: Instruction, Research, Academic Support (including the University Library), Public Service, Teaching Hospitals, Operation and Maintenance, Institutional Support, and Financial Aid. The SAPEP programs are included under the Public Service category, along with this explanatory text:

“One component of public service is the University’s Student Academic Preparation and Educational Partnerships, through which UC works collaboratively with schools and other partners to help educationally disadvantaged students meet rigorous standards of academic preparation needed to be successful in higher education and the world of work.”²⁰⁷

205. State of California. 2011e. California Education Code, Section 66010.1-66010.8 (August 3, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) Section 66010.5.

206. The Regents of the University of California. 2005b. Regents Policy 2106: Policy Affirming Engagement in the Preschool through Postsecondary Education System, as Fundamental to the University of California Mission as a Land Grant Institution. (September 1, 2011, <http://www.universityofcalifornia.edu/regents/policies/2106.html>)

207. State of California, Department of Finance. 2011b. Governor’s Budget 2011-12: 6440 University of California, Program Descriptions. (September 5, 2011, http://www.ebudget.ca.gov/StateAgencyBudgets/6013/6440/program_description.html) Excerpt from list of Program Descriptions: “Public service also includes Cooperative Extension,

Although the Regents have characterized the University's SAPEP programs as being consistent with the University's public service mission, the Morrill Act of 1862, the federal statute that established the nation's public research universities, does not direct the states to establish elementary and secondary education programs, produce or provide courses for those lower levels of education, or provide support to disadvantaged elementary and secondary level students, nor does it direct the states to apply their Morrill Act endowment to such programs. The Act of 1862 required the states to apply the interest from funds derived from the sale of federal lands granted under the Act as prescribed, "and for no other use or purpose whatsoever":²⁰⁸

"...to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life."²⁰⁹

The phrase "public service" is defined as "a service provided or facilitated by the government for the general public's convenience and benefit."²¹⁰ The University is a "constitutional corporation or department and constitutes a branch of the state government equal and coordinate with the legislature, the judiciary and the executive," and the Regents have the power to "operate, control, and administer the University."²¹¹ The

which is the University's largest public service program. Cooperative Extension provides applied research and educational programs in agriculture and natural resources, family and consumer sciences, community resource development, and 4-H youth development."

208. United States Congress. 1862. Chapter CXXX. – "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>) Section 2.

209. Ibid. Section 4. Section 2 of the Act states that the endowment is to be "applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever."

210. Anon. 1999. "public service" in Garner B. A., ed. *Black's Law Dictionary, Seventh Edition*. St. Paul, Minnesota: West Group. p. 1246.

211. Brown, E. G. 1957. Opinion No. 57-179—October 1, 1957. Subject: Pacific Coast Intercollegiate Athletic Conference. Opinion by Edmund G. Brown, Attorney General. Pages 162-167 in Hanna W. L., ed. *Opinions of the Attorney General of California*. Volume 30

University of California is a branch of government with the authority to provide public service programs; but in this case, a different state agency is charged with the responsibility to oversee elementary and secondary education. Furthermore, the 1862 Morrill Act provided funding for an endowment to provide support to a college. The Act did not provide an endowment for an elementary or secondary school.

The Regents of the University of California have “full powers of organization and government” to administer the University as provided under Article IX, Section 9 of the Constitution of California. Article IX, Section 9 refers only to the organization and governance of a university, not that of an elementary or secondary school. Also, the charter of the University of California, the Organic Act of 1868 (*An Act to create and organize the University of California*), provided only for the establishment of a university.²¹² It makes no mention of elementary and secondary schools. Section 1 of the 1868 Act states:

“A State University is hereby created, pursuant to the requirements of Section four, Article nine, of the Constitution of the State of California, and in order to devote to the largest purposes of education the benefaction made to the State of California under and by the provisions of an Act of Congress passed July second, eighteen hundred and sixty-two, entitled an Act donating land to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts. The said University shall be called the University of California, and shall be located upon the grounds heretofore donated to the State of California by the President and Board of Trustees of the College of California. The said University shall be under the charge and control of a Board of Directors, to be known and styled ‘the Regents of the University of California.’ Design. The University shall have for its design, to provide instruction and complete education in all the departments of science, literature, art, industrial and professional pursuits, and general education, and also special courses of instruction for the professions of agriculture, the mechanic arts, mining, military science, civil engineering, law, medicine and commerce, and shall consist of various colleges...”²¹³

(July – December 1957). Albany, California: Hanna Legal Publications. p. 166.

212. As we saw in our chapter on Dartmouth College, the Dartmouth College Charter contained all of the controls for the governance of the College. The levers of administrative control and the sources of intellectual direction for the University of California are found in the Morrill Act of 1862, the Organic Act of 1868, the Constitution of California, and the California Education Code.

213. State of California. 1868b. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: Statutes of California, Seventeenth Session. 1867-

In terms of the relation of governing documents to programs for disadvantaged students, the Native American Program at Dartmouth College provides a point of comparison to the University of California's SAPEP programs. By 1969, 200 years after Dartmouth's founding in 1769, only nineteen Native Americans had graduated from the College. In 1972, the Native American Program was established at Dartmouth College to recruit, support, and provide educational opportunities to Native American students, and by 2001 more than 450 Native American students had earned degrees.²¹⁴ However, the key point for comparison is the relation of Dartmouth's Native American Program to the terms of the College Charter, which states:

"... that there be a college erected in our said province of New Hampshire by the name of Dartmouth College, for the education and instruction of youth of the Indian tribes in this land in reading, writing, and all parts of learning which shall appear necessary and expedient for civilizing and christianizing children of pagans, as well as in all liberal arts and sciences, and also of English youth and any others."²¹⁵

In addition to their inconsistency with the University's governing documents, many of the University of California's SAPEP programs appear to duplicate programs that are overseen by another state department.²¹⁶ In terms of duplication of efforts, consider the *California Master Plan for Higher Education*, in which "the basic issue" was "the future role of the junior colleges, state colleges, and the University of California in the state's tripartite system and how the three segments should be governed and coordinated so that unnecessary duplication

1868, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>) The Act refers to the 1849 Constitution of the State of California.

214. Dartmouth College, Native American Program. 2012. "The Native American Program". (May 21, 2012, <http://www.dartmouth.edu/~nap/>) See also: Calloway, C. G. 2001. "Native American Studies at Dartmouth". *Indigenous Nations Journal* Volume 2, Number 1 (Spring, 2001): 29-34.

215. 1769. *Charter of Dartmouth College*, December 13, 1769: Dartmouth College Library, U.S. Government Documents. Trustees of Dartmouth College v. Woodward. <http://www.dartmouth.edu/~govdocs/case/charter.htm> (Accessed: September 27, 2007).

216. The Preuss School occupies a facility on the UC San Diego campus; therefore, the University's physical structure has been extended to serve levels of the State's educational systems below those of the University.

will be avoided.”²¹⁷

The Nation’s system of public research universities includes a public service outreach function known as the Cooperative Extension Service, established by the Smith-Lever Act of 1914. The University’s Cooperative Extension program extends the reach of the University’s resources to address public needs by developing practical applications of knowledge gained through research. Originally, Cooperative Extension services addressed rural and agricultural issues. Today, Extension includes public service outreach programs in six areas, which are presented in Table 9.2.²¹⁸ The 4-H Youth Development program, one of six Extension program areas, bears some similarity to the University’s SAPEP programs; however, since it is positioned within the University’s Cooperative Extension programs, and does not have a stated mission to prepare students for admission to the University by offering preparatory elementary and secondary education programs, it does not conflict with the University’s higher education instructional responsibilities.

It is also important to note that the University’s SAPEP outreach programs, like the University’s short-lived nineteenth-century “fifth class” preparatory school, were initiated and approved by the Regents. We have found no evidence that the SAPEP programs were proposed and approved according to the procedures outlined for other University of California programs and schools that we presented earlier in this chapter in our discussion on the origins and functions of CPEC. In addition, to support the University’s SAPEP outreach programs, the Regents requested the President of the University to submit an annual report on the programs to the Board, and to collaborate with the Governor, the Legislature, and other segments of California public education, “to develop and implement a plan for meaningful, consistent, and long-term funding of the UC academic preparation and educational-

217. California Legislature. 1960b. *A Master Plan for Higher Education in California, 1960-1975. Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California.* (July 28, 2011, <http://www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf>) Preface, page xi.

218. United States Department of Agriculture, National Institute of Food and Agriculture. 2011. “About Us: History of Extension”. (September 22, 2011, <http://www.csrees.usda.gov/qlinks/extension.html#yesterday>)

Table 9.2 (Part 1/2) University of California Cooperative Extension Program	
4-H Youth Development	The 4-H Youth Development program “cultivates important life skills in youth that build character and assist them in making appropriate life and career choices. At-risk youth participate in school retention and enrichment programs. Youth learn science, math, social skills, and much more, through hands-on projects and activities.” (1) (2)
Agriculture	Agricultural research and educational programs “help individuals learn new ways to produce income through alternative enterprises, improved marketing strategies, and management skills and help farmers and ranchers improve productivity through resource management, controlling crop pests, soil testing, livestock production practices, and marketing.” (1)
Leadership Development	Extension Leadership Development “trains extension professionals and volunteers to deliver programs in gardening, health and safety, family and consumer issues, and 4-H youth development and serve in leadership roles in the community.” (1)
Natural Resources	The Natural Resources program area provides instruction for landowners and homeowners on how “to use natural resources wisely and protect the environment with educational programs in water quality, timber management, composting, lawn waste management, and recycling.” (1)
Family and Consumer Sciences	The Family and Consumer Sciences program “helps families become resilient and healthy by teaching nutrition, food preparation skills, positive child care, family communication, financial management, and health care strategies.” (1)
Community and Economic Development	The Community and Economic Development program “helps local governments investigate and create viable options for economic and community development, such as improved job creation and retention, small and medium-sized business development, effective and coordinated emergency response, solid waste disposal, tourism development, workforce education, and land use planning.” (1)

Table 9.2
(Part 2/2)

University of California Cooperative Extension Program

Sources for Table 9.2:

(1) United States Department of Agriculture, National Institute of Food and Agriculture, "About Us: History of Extension."

<http://www.csrees.usda.gov/qlinks/extension.html#yesterday>

(Accessed: September 22, 2011).

(2) University of California, 4-H Youth Development Program. Division of Agriculture and Natural Resources, University of California. <http://www.ca4h.org/About/Mission/>

(Accessed: September 22, 2011)

See also: <http://www.ca4h.org/About/History/> (Accessed: September 22, 2011)

Note: The Division of Agriculture and Natural Resources (ANR) is a statewide network of University of California researchers and educators dedicated to the creation, development and application of knowledge in agricultural, natural and human resources. The ANR Research and Extension Centers administrative office is located at UC Davis. The Office of the Vice President, Director of the Agricultural Experiment Station, and Director of Cooperative Extension is located at University of California Office of the President, in Oakland, California.

partnership infrastructure.”²¹⁹

In his book, *The Conditions for Admission: Access, Equity, and the Social Contract of Public Universities*, John Aubrey Douglass, Senior Research Fellow at the Center for Studies in Higher Education at UC Berkeley, documents the political history of Proposition 209 and the University’s outreach programs. He says that to compensate for the effects of the prohibition on racial preferences in university admissions, the California Legislature “poured money into outreach [programs] as separate budget items above the university’s normal operating budget. Indeed, university officials were given funds for outreach programs that they had not even asked for, an unusual twist in the higher education budget process.”²²⁰ The SAPEP budget in 2000-01 included about \$82.3 million in State General Funds and \$2.9 million in University Funds, for a total of \$85.2 million. In 2008, Governor Arnold Schwarzenegger revised an Assembly appropriations bill to read:

“Of the funds appropriated in Schedule (1), \$19,300,000 is for student academic preparation and education programs (SAPEP) and is to be matched with \$12,000,000 from existing university resources, for a total of \$31,300,000 for these programs. The University of California shall provide a plan to the Department of Finance and the fiscal committees of each house of the Legislature for expenditure of both state and university funds for SAPEP by September 1 of each year. It is the intent of the Legislature that the university report on the use of state and university funds provided for these programs, including detailed information on the outcomes and effectiveness of academic preparation programs consistent with the accountability framework developed by the university in April 2005. The report shall be submitted to the fiscal committees of each house of the Legislature no later than April 1, 2009.”²²¹

In 2009-10, the total SAPEP budget was reduced to \$29.6 million (\$17.6 million in State General Funds and \$12 million in University

219. The Regents of the University of California. 2005b. Regents Policy 2106: Policy Affirming Engagement in the Preschool through Postsecondary Education System, as Fundamental to the University of California Mission as a Land Grant Institution. (September 1, 2011, <http://www.universityofcalifornia.edu/regents/policies/2106.html>)

220. Douglass, J. A. 2007. *The Conditions for Admission: Access, Equity, and the Social Contract of Public Universities*. Palo Alto, California: Stanford University Press p. 193.

221. State of California, Governor’s Office. 2008. Bill Number: AB 88. Vetoed Date: 09/23/2008. Arnold Schwarzenegger, Governor. September 23, 2008. “I object to the following appropriations contained in Assembly Bill 88”. (September 5, 2011, ftp://leginfo.public.ca.gov/pub/07-08/bill/asm/ab_0051-0100/ab_88_vt_20080923.html)

funds).²²² The 2010-11 State Budget Act required the University to maintain the 2010-11 SAPEP budgets at their 2009-10 levels.²²³ Out of the total funds appropriated to the University of California in the 2013-14 State Budget Act, the University was required to contribute \$24,600,000 to SAPEP programs.²²⁴ The State reduced unrestricted state funding for the operation of its public research university, but continues to provide funding for elementary and secondary educational outreach programs to be administered by the University of California. The State requires the University to contribute a specified level of funding to those programs.

The establishment and funding of the SAPEP programs are an instance of the Governor, the State Legislature, and the University's Governing Board serving as entwined sources of intellectual direction to the University. This intellectual direction is linked to State-provided funding and requirements for additional funding to be provided by the University. In addition, the University is held responsible for the submission of reports to the Legislature that assess the effectiveness of those required programs.

The University's SAPEP programs raise many questions in relation to the University's sources of intellectual direction and funding. For one, the Morrill Act of 1862 unambiguously stipulates how the land-grant endowment funds are to be applied: elementary and secondary education is not included in the uses identified by the Act. The Organic Act of 1868 mentions only the establishment and governance of a university, not elementary and secondary schools, but Regental intellectual direction has extended the University's intellectual structure below the university level to include elementary and secondary programs. A second question is raised by the relation of the University's SAPEP programs to the terms of the *Donahoe Higher Education Act*, which codified aspects of the *California Master Plan for Higher Education*, and does not assign responsibility for elementary and secondary education

222. University of California Office of the President, Division of Business Operations. 2011. *2011-12 Budget for Current Operations, Budget Detail*. (July 21, 2011, <http://www.ucop.edu/budget/rbudget/201112/2011-12-budget-detail.pdf>) p.74.

223. *Ibid.* p. 74.

224. California Legislature. 2013. AB-110 Budget Act of 2013.(2013-2014). Approved by Governor, June 27, 2013. Filed with Secretary of State, June 27, 2013. (06/28/13 - Chaptered by Secretary of State - Chapter 20, Statutes of 2013.). (January 10, 2014, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB110)

to the University of California. The characterization of the University's SAPEP programs as being an aspect of the University's public service mission linked to its land-grant status raises another question in relation to the terms of the University's Morrill Act endowment. The public service function of the public research university, as it is described in federal legislation related and subsequent to the Morrill Act of 1862, expands the university's sphere of service and enables the delivery of advanced knowledge and the products of university research to reach people that reside far from the University's campus. The Regents have characterized the University's SAPEP programs as a public service; however, elementary and secondary public education programs are the responsibility of other existing departments of the state government. Despite the success of the SAPEP programs to provide necessary preparatory programs, the University's engagement in elementary and secondary education instruction can be understood as releasing the State's elementary and secondary schools from their responsibilities and delaying governance and funding reforms at those levels of public education. In contrast to the University of California's single governing board, the state's elementary and secondary schools, governed by more than 900 separate school districts, present a far greater political challenge to those who seek to address educational inequities.²²⁵

Unrelated to the terms of the Morrill Act endowment, the Legislature has provided funding for specific research projects when pressed by University faculty and researchers and citizens of the state. Based on the state's budget deficit, the Legislature chose not to provide funding for the UC Riverside Medical School. However, the Legislature has continued to partially fund the University's SAPEP outreach programs and requires the University to fund these programs despite overall reductions in state appropriations to the University.

While the approval or denial of funding plays a strong role in intellectual direction, the Legislature was not the original source of intellectual leadership for the state-mandated research projects, the SAPEP

225. California Department of Education. 2011b. "District/School Boundaries". (September 8, 2011, <http://www.cde.ca.gov/re/di/fq/distschlboundaries.asp>). In 2009-2010, there were a total of 963 California School Districts, comprised of 344 unified districts, 546 elementary districts, and 83 high school districts. See: *ibid.* "District Organization Handbook," p. 12.

programs, or the UC Riverside Medical School. The Legislature is not identified as a source of intellectual direction for the University in any of the University's governing documents. UC is protected against both religious and political interference by state and federal law, but its funding is uncertain and vulnerable to the whims of the state's Legislature and the influence of private interests. For an example, at the 177th annual meeting of the American Association for the Advancement of Science, in Washington, D.C., Patrick Wilson, director of government affairs for the Semiconductor Industry Association made the point that public universities can close their funding gaps by better serving industry's needs: "You need to do what's good for the patron, and the patron will support you."²²⁶ Although the 1862 Morrill Act's provisions require the university to offer courses in the mechanical arts, a discipline that includes electrical engineering, the performance of services specific to the enhancement of the interests of private donors is not included in Act's description of the purpose of the public research university. Privatization, the transfer from public to private ownership and control, would redirect the public research university's intended purpose from service to the state and nation, to that of serving the interests of "the patron."²²⁷ The Morrill Acts of 1862 and 1890 linked intellectual direction with funding and provided the seeds for state-administered public endowments to support the combined teaching and research functions of the public research university. These two federal statutes did not identify private donors as sources of intellectual direction for the institutions established under their provisions. In this sense, the Morrill Act anticipated the AAUP's 1915 statement on academic freedom that proclaims the university professor's "duty is to the wider public to which the institution itself is morally amenable."²²⁸

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CHAPTER 9 – PART TWO

The University of California

Administrative and Intellectual Structures: The roles of the University’s Governance Board, President, and Faculty, and an analysis of the University’s “land-grant status”

THE UNIVERSITY GOVERNING BOARD: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

In our review of the early history of Dartmouth College, we found that the Board of Trustees had the power to appoint and remove all college officers, including professors and the college president. Through their choice of appointments, the Board could shape the intellectual structure of the College. The college president, a member of the Board, had charter-assigned authority to set the intellectual structure for the college; but the Board held the ultimate governing power.

The authority of the governing board over the college president was reinforced when the state of New Hampshire took unilateral action to transform Dartmouth College into the short-lived publicly-controlled Dartmouth University. The president of Dartmouth College had charter-derived authority to shape the intellectual structure of the college; but at Dartmouth University, an early model of a public university, there was a shift in responsibility for the university’s intellectual direction away from the authority of the individual university president and toward the state-appointed governing board. At Dartmouth University, a newly expanded Board of Trustees acted immediately to set the new University’s curriculum, with confirmation by a state board of overseers. At this point in Dartmouth’s history, the state assumed primary responsibility for the university’s intellectual leadership.

The University of Virginia’s original source of intellectual direction was Thomas Jefferson, the University’s founder. Jefferson was also Rector of the University’s Board of Visitors, whose members were ap-

pointed by the state's governor. Under the terms of the Act that established the University, the Visitors had the power to appoint and remove professors and define the course of education, but their decisions were subject to the approval of the state's legislature.¹ Here, an appointed board and its Rector exercised extensive influence over intellectual direction.

The University of California is governed by The Regents of the University of California, a 26-member governing board.² The original Article IX, Section 9 of the 1879 Constitution of California mentions "the regents" (in reference to Sections 1 and 11 of the Organic Act³); however, a full description of the composition of the corporate body of The Regents first appeared in Article IX, Section 9 with the constitutional amendments of November 5, 1918.⁴ Seven members of The Regents are *ex-officio*, and include the Governor, the Lieutenant Governor, the Speaker of the Assembly, and the Superintendent of Public Instruc-

1. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

2. State of California. 1868c. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>)

See: Deering, J. H. 1922. "Title 593. University of California. Act 4240. To create and organize the University of California. [Stats. 1867-68, p. 248.] Amended 1871-72. p. 655." Pages 1991-1996. *Consolidated Supplement to the Codes and General Laws of the State of California of 1915 showing the changes affecting the codes and the general laws for the years 1917, 1919, and 1921...* San Francisco: Bancroft-Whitney Company. On page 1991 of Deering's book, is a note accompanying the entry for "Act 4240: To Create and Organize the University of California," which states that the Organic Act was "Probably repealed by the [California Political] code, but if so, revived and made irrevocable by § 9, art. IX, of the constitution of 1879"—Code Commissioners' Note."

The Regents of the University of California. 2011f. "About the Regents". (March 7, 2011, <http://www.universityofcalifornia.edu/regents/about.html>)

3. State of California. 1868a. An Act to Create and Organize the University of California (March 5, 1868). Assembly Bill No. 583. Source: Bancroft Library, University of California, Berkeley. *Days of Cal: A Virtual Tour through UC Berkeley's History*. (June 18, 2009, <http://sunsite.berkeley.edu/calhistory/charter.html> and <http://sunsite.berkeley.edu/calhistory/>) The Board of Regents is defined in §11 of the Organic Act of 1868.

4. —. 1879a. 1879 California State Constitution: Article IX, Section 9 (including amendments). (March 10, 2011 <http://content.cdlib.org/view?docId=hb409nb2hr&brand=calisphere>)

tion. The remaining 18 members are appointed by the Governor and approved by the California State Senate. The Regents of the University of California serve twelve-year terms without compensation, and have “full powers of organization and governance” subject only to very specific areas of legislative control related to the security of the university’s funds, compliance with the terms of the university’s endowments, and particular kinds of competitive bidding procedures.⁵

Under their constitutionally derived governance powers, the Regents adopt Bylaws, Standing Orders, and Policies. The Regents’ Bylaws define the following: the name of the corporation (The Regents of the University of California); the design and use of the University’s corporate seal; the composition and powers of the corporation and the exercise of those powers; the meetings, responsibilities, and procedures of the Regents’ standing committees; and the duties and responsibilities of the officers of the Corporation.⁶ The Standing Orders of the Regents define the duties, powers, privileges, and status of the University’s officers, faculty, academic senate, and employees.⁷ Although the University of California was established under the provisions of the Morrill Act of 1862, references to the intellectual direction prescribed by the Act do not appear in Regental Bylaws, Standing Orders, or Policy Statements.

The Board of Regents appoints the President of the University of California and the officers of the Board, including the General Counsel, the Treasurer, the Secretary and Chief of Staff, and the Chief Compliance and Audit Officer. The State’s Governor is the official president of the Board of Regents; however, the Chairman of the Board, a position elected from among the body of Regents for a one-year term, is the presiding officer of the Regents. The Board of Regents meets six times

5. Ibid. See also: The Regents of the University of California. 2010. Bylaws of The Regents of the University of California. (March 15, 2011, <http://www.universityofcalifornia.edu/regents/bylaws/bylaws.html>) Bylaw 8.1 Compensation of Regents: “No Regent shall receive salary or other compensation for services as a Regent nor shall any Regent other than the President of the University be eligible for appointment to any position in connection with the University for which a salary or other compensation is paid...”

6. —. 2010. Bylaws of The Regents of the University of California. (March 15, 2011, <http://www.universityofcalifornia.edu/regents/bylaws/bylaws.html>)

7. —. 2011e. Standing Orders of The Regents of the University of California. (January 2, 2012, <http://www.universityofcalifornia.edu/regents/bylaws/standing.html>)

a year, and ten standing committees of The Regents carry out its operations. Those committees are: Compliance and Audit, Compensation, Educational Policy, Finance, Governance, Grounds and Buildings, Health Services, Investments, Long Range Planning, and Oversight of the Department of Energy Laboratories.⁸

THE ROLE OF THE PRESIDENT OF THE UNIVERSITY OF CALIFORNIA

The President of the University of California is responsible for the overall policy direction of the University and shares authority for its operation with the Faculty and the Chancellors of the multi-campus University of California system.

Prior to the establishment of multiple University of California campuses, UC's President, elected by the Regents, was an academic officer associated with the Berkeley campus. The President's role as it was defined in the Organic Act of 1868, Section 15, was similar to that of the President at Dartmouth College, or the chairman of the Faculty at the early University of Virginia prior to the establishment of the office of the University President at that institution. At these other two institutions, the President or faculty chairman served both as an academic leader and as a member of the Faculty. The President's role at the early University of California, described in the Organic Act of 1868, does not include responsibilities for the University's budget or fundraising. During the University of California's early decades, its endowment funds were sufficient to support its teaching and research operations. The Organic Act states:

"The President of the University shall be President of the several Faculties and the executive head of the institution in all its departments, except as herein otherwise provided. He shall have authority, subject to the Board of Regents, to give general direction to the practical affairs of the several colleges, and, in the recess of the Board of Regents, to remove any employee or subordinate officer not a member of any Faculty, and to supply for the time being any vacancies thus created; and, so long as the interests of the institution require it, he shall be charged with the duties of one of the professorships."⁹

8. —. 2011f. "About the Regents". (March 7, 2011, <http://www.universityofcalifornia.edu/regents/about.html>)

9. State of California. 1868c. An Act to Create and Organize the University of California (The

In 1951, after additional University of California campuses had been established in Los Angeles, Riverside, and Santa Barbara, the office of Chancellor was established as part of a reorganization of the administrative structure of the University to provide greater autonomy to the individual campuses, decentralize the administration of the University, and distribute the expanding responsibilities of the University's President.¹⁰ The current Standing Orders of The Regents of the University of California define the responsibilities of the office of Chancellor:

The Chancellor of each campus shall be the chief campus officer thereof and shall be the executive head of all activities on that campus, except as herein otherwise provided and excepting such activities as may be designated by the Board as University-wide activities; and with reference to these on a particular campus the Chancellor shall be consulted. In all matters within the Chancellor's jurisdiction, the Chancellor shall have administrative authority within the budgeted items for the campus and in accordance with policies for the University as determined by the President of the University. The Chancellor shall be responsible for the organization and operation of the campus, its internal administration, and its discipline; and decisions made by the Chancellor in accordance with the provisions of the budget and with policies established by the Board or the President of the University shall be final. The Chancellor of each campus shall nominate Officers, faculty members, and other employees on that campus in accordance with the provisions of these Standing Orders.¹¹

In the present era, the University of California Office of the President, located in Oakland, California, is the systemwide headquarters of the University, an administrative office with multiple divisions and departments, physically separate from the University's campuses. The Standing Orders of The Regents of the University of California list the President's duties. The first paragraph in the list states "the President shall be the executive head of the University and shall have full author-

Organic Act of 1868). Source: *Statutes of California, Seventeenth Session. 1867-1868*, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>) Section 15: President of the University.

10. Lee, E. C. 1995. *The Origins of the Chancellorship: The Buried Report of 1948*: Center for the Studies in Higher Education and Institute of Governmental Studies. University of California, Berkeley. Pp. 54-59.

11. The Regents of the University of California. 2009. Standing Orders of The Regents of the University of California: 100.6, Duties of the Chancellors (October 1, 2011, <http://www.universityofcalifornia.edu/regents/bylaws/so1006.html>)

ity and responsibility over the administration of all affairs and operations of the University.”¹² The Regents’ Standing Orders include more than forty separate Presidential duties related to the financial aspects of the University’s operation, including the following: “...the President shall develop, initiate, implement, and approve fundraising campaigns for the benefit of the University in accordance with the policies of the Board.”¹³ Listed Presidential duties that relate to the conferment of degrees and the appointment of faculty are delegated to other officers of the University, the first among these being the respective Chancellors of the University’s several campuses.¹⁴

At their March 2011 meeting, The Regents approved a “Statement of Expectations of the President of the University.”¹⁵ The Statement defines the President’s role as the University of California’s academic leader, primary external advocate, guardian of the public trust, and chief executive officer. Through their Statement, the Regents hold the

12. —. 2011c. Standing Order 100.4: Duties of the President of the University. 2011; <http://www.universityofcalifornia.edu/regents/bylaws/so1004.html>)

For historical background on the administrative structure of the University of California, see: Kerr, C. 2001. *The Gold and the Blue: A Personal Memoir of the University of California, 1949-1967*. Berkeley, California: University of California Press.

Clark Kerr (1911-2003) was Chancellor of the UC Berkeley campus from 1952 to 1958, and President of the University of California from 1958 to 1967.

See also: Fitzgibbon, R. H. 1968. *The Academic Senate of the University of California*: University of California, Office of the President.

Russell Humke Fitzgibbon (1902-1979), Professor Emeritus of Political Science, University of California, Santa Barbara, was active in Academic Senate affairs. He served in many roles, including the chairmanship of the Southern Section of the Senate when the Senate had Northern and Southern Sections, and the chairmanship of the Academic Council. He also served as academic assistant to UC Presidents Kerr and Hitch. He played a leading part in developing the Political Science Department at UCLA and served as its chairman for two separate terms. See: University of California (System) Academic Senate. 1979. 1979, University of California: *In Memoriam*. (January 13, 2014, <http://texts.cdlib.org/view?docId=hb4q2nb2px&query=&brand=calisphere>)

13. The Regents of the University of California. 2011c. Standing Order 100.4: Duties of the President of the University. 2011; <http://www.universityofcalifornia.edu/regents/bylaws/so1004.html>)

14. *Ibid.*

15. —. 2011b. Regents Policy 1500: Statement of Expectations of the President of the University. (February 2, 2012, <http://www.universityofcalifornia.edu/regents/policies/1500.html>) See also: University of California, The Regents of the University of California, Governance Committee of the Board of Regents. 2008. *Report of the Working Group on the Roles of the Office of the President*. (February 2, 2012, <http://www.universityofcalifornia.edu/future/roleofOPrpt.pdf>)

President of the University, not the state's Legislature, responsible for the adequacy of the University's financial resources. The University of California is a branch of the state's civil government. In that regard, the University is not unlike the state's executive, judicial, and legislative branches, each of which is fully supported by taxpayer funding.¹⁶ Special interest funding to directly support the State's other branches of civil government would introduce prejudice in favor of powerful interests.¹⁷ In relation to the LAO's comments regarding the state Legislature's role in directing the operation of the University through its power of the purse, the Regents' Statement raises a question in regard to the ultimate source of responsibility for the financial support of the University. The Statement reads in part:

"... the President shall ensure that the University has adequate financial resources and that those resources are effectively managed to ensure the excellence of the University for future generations of Californians. The President shall present recommendations to the Board for both the capital and operating budget of the University. The President shall monitor and audit the expenditure of funds and shall ensure the University is a responsible steward of the public funds entrusted to the institution."¹⁸

The state's Governor, an *ex officio* member of The Regents, has the power to draft the state's budget, and the Legislature has the pow-

16. A similar description of the University of California in relation to the other branches of state government was expressed in: Brown, E. G. 1957. Opinion No. 57-179—October 1, 1957. Subject: Pacific Coast Intercollegiate Athletic Conference. Opinion by Edmund G. Brown, Attorney General. Pages 162-167 in Hanna W. L., ed. *Opinions of the Attorney General of California*. Volume 30 (July - December 1957). Albany, California: Hanna Legal Publications. [The University of California] "is a constitutional corporation or department and constitutes a branch of the state government equal and coordinate with the legislature, the judiciary and the executive." Page 166.

17. State of California. Constitution of California. (May 24, 2011, <http://www.leginfo.ca.gov/const.html>) Article 4, Legislative. Sec. 4. (a) "To eliminate any appearance of a conflict with the proper discharge of his or her duties and responsibilities, no Member of the Legislature may knowingly receive any salary, wages, commissions, or other similar earned income from a lobbyist or lobbying firm, as defined by the Political Reform Act of 1974, or from a person who, during the previous 12 months, has been under a contract with the Legislature."

18. The Regents of the University of California. 2011a. Approved Actions G – Committee on Governance, March 17, 2011. (March 23, 2011, <http://www.universityofcalifornia.edu/regents/aar/marg.pdf>). See also: —. 2011b. Regents Policy 1500: Statement of Expectations of the President of the University. (February 2, 2012, <http://www.universityofcalifornia.edu/regents/policies/1500.html>)

ers to approve the state's budget, appropriate funds, and levy taxes. It is questionable, therefore, to hold the University's President responsible for ensuring adequate financial resources for the University. The Regents' Statement can be read as being a step toward the privatization of the University through its implication that ultimate responsibility for the financial support of the University lies with the University's President, not the State's Governor, or the Legislature. Recall that at Dartmouth, a privately-controlled institution, the College's President was responsible for both fundraising and intellectual direction. At the publicly-controlled University of Virginia, the state government, through the Literary Fund, provided financial support to the University.

In terms of responsibility for the University of California's intellectual direction, the President, as academic leader of the university, does not act independently, as once did the President of Dartmouth College. The Standing Orders of The Regents define this aspect of the President's role in relation to the Faculty and the governing board:

"The President shall consult with the Chancellors and the Academic Senate regarding the educational and research policies of the University, and shall keep the Chancellors and the Academic Senate informed about significant developments within the University and within the State and Federal governments which may have serious consequences for the conduct of education and research within the University. The President shall present recommendations to the Board concerning the academic plans of the University and of the several campuses." ¹⁹

Here, the President is portrayed as having a consultative role, an information role, and a role that potentially has influence – that of recommending academic plans to the Regents for approval.

The Regents "Statement of Expectations of the President of the University" also defines the role of the President in relation to the university's overall mission, without making reference to the intellectual direction requirements of the 1862 Morrill Act:

"The President shall serve as the academic leader of the institution, de-

19. —. 2011c. Standing Order 100.4: Duties of the President of the University. 2011; <http://www.universityofcalifornia.edu/regents/bylaws/so1004.html>)

—. 2011a. Approved Actions G - Committee on Governance, March 17, 2011. (March 23, 2011, <http://www.universityofcalifornia.edu/regents/aar/marg.pdf>)

fining the vision for the University, and leading the system in developing and executing plans in support of that vision, consistent with the delegation of authority to the Academic Senate and the concept of shared governance.”²⁰

THE ROLE OF THE FACULTY IN THE ADMINISTRATION OF THE UNIVERSITY OF CALIFORNIA

The Academic Senate

At the University of California in the current era, The Regents of The University of California have “full powers of organization and governance,” and have delegated responsibility for the university’s curricular direction to the University’s Academic Senate.²¹ Expanding on the model of administrative structure established at the University of Virginia, where the members of the University’s Faculty constitute a self-governing administrative body, the Faculty of the University of California are members of the Academic Senate, a self-governing body defined by the terms of the Organic Act of 1868 that established the University of California.²² The Organic Act of 1868 states in part:

“The immediate government and discipline of the several colleges shall be intrusted to their respective Faculties, to consist of the President and the resident professors of the same, each of which shall have its own organization, regulate the affairs of its own college, recommending the course of study and the text books to be used, for the approval of the Board of Regents, and, in connection with the President as its executive officer, have the government of its students ... All the Faculties and instructors of the University shall be combined into a body which shall be known as the Academic Senate, which shall have stated meetings at regular intervals and be presided over by the President, or a President pro tempore, and which is created for the purpose of conducting the general administration of the University and memorializing

20. —. 2011a. Approved Actions G - Committee on Governance, March 17, 2011. (March 23, 2011, <http://www.universityofcalifornia.edu/regents/aar/marg.pdf>)

21. State of California. 1879b. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011, http://www.leginfo.ca.gov/.const/.article_9)

22. University of California, Academic Senate. 2011a. Academic Senate: About the Senate. (April 12, 2011, <http://www.universityofcalifornia.edu/senate/about.html>)

the Board of Regents..."²³

The members of the Faculty of the University of California, like the Faculty of the University of Virginia, have both teaching and administrative roles, with the University's President serving as the head of the Faculty. Today, the Academic Senate of the University of California consists of a central system-wide Senate in addition to the divisional senates of each of the University's ten campuses.

In his book, "The Academic Senate of the University of California," Angus E. Taylor (1911-1999), teacher, researcher, and administrator at the University of California, explains that while the name of the Academic Senate, and a description of its responsibilities, is included in the Organic Act of 1868, The Regents did not recognize its role in advising the President of the University, or its assigned responsibilities in relation to the authorization of courses of instruction, degrees and certificates, and the admission of students, until 1920.²⁴ In an action known as "The Berkeley Revolution of 1919-1920," the Academic Senate presented a Memorial to the Regents expressing the Faculty's aspirations to more fully participate in the governance of the University.²⁵ In response to that Memorial, submitted in 1919, the Regents issued new Standing Orders that included an authorization for the Academic Senate to choose its own chairman and committees. Taylor says that this authorization is "the cornerstone of the senate's power and ability to act independently of the administration."²⁶ John Aubrey Douglass, Research Fellow at the Center for Studies in Higher Education at the

23. State of California. 1868b. An Act to Create and Organize the University of California [Approved March 23, 1868], Chapter CCXLIV, §§1-27. Pages 248-259. *The Statutes of California, passed at the Seventeenth Session of the Legislature, 1867-8*. Sacramento: D. W. Gelwicks, State Printer. The Academic Senate's role is prescribed in §18 of the Act.

24. Taylor, A. E. 1998. *The Academic Senate of the University of California: Its Role in the Shared Governance and Operation of the University of California*: Institute of Governmental Studies Press, University of California, Berkeley.

25. *Ibid.* The text of the Memorial is reproduced in the Appendix. Taylor's source: Minutes of the Board of Regents of the University of California, October 14, 1919.

26. *Ibid.* Footnote, page 3. Footnote, page 4, states: "These Standing Orders were recommended by the Executive Committee at a regent's meeting on April 13, 1920, and approved by the board on June 24, 1920." The Regents Standing Orders of 1920 are reproduced on pages 3 and 4 of Taylor's book.

University of California, Berkeley, says the University of California was the first institution of higher education in the United States to establish an administrative structure that included the participation of the Faculty, and thereby served as a model for other major U.S. universities.²⁷ However, as our history has documented, the Faculty of the University of Virginia were assigned responsibility for the day-to-day governance of the University more than forty years earlier. At the University of California, the governance role of the Faculty was expanded over that at Virginia, giving the Faculty greater autonomy over the intellectual direction of the University.

Why would a university's governing board choose to relinquish control of the institution's intellectual direction and grant autonomy to the Faculty? The majority of the members of a university governing board are government officials and business executives—leaders of society. These individuals recognize the benefits to government and industry brought by university research, and appreciate the crucial importance of the specialized and highly valuable knowledge held by professors. They also understand the effort and costs associated with establishing the laboratories and intellectual structure necessary for conducting research, as well as the both the financial risks and the benefits associated with open inquiry. All interests, public and private, derive benefits from new knowledge emerging from university research. Research results that are available to all interested parties stimulate competition. In addition, university researchers using public facilities, while also offering the advantage of collaboration between disciplines, can provide new knowledge at less cost, since the establishment and management of private research facilities is expensive.

Economic growth following World War II is often portrayed as a miracle of the free market. In his book, *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*, William J. Baumol, Harold Price Professor of Entrepreneurship and Academic Director of the Berkley Center for Entrepreneurship and Innovation in the Stern School of Business at New York University, and senior economist

27. Douglass, J. A. 1998. *Shared Governance at the University of California: A Historical Review*. Research and Occasional Paper Series: CSHE.1.98: Center for Studies in Higher Education. University of California, Berkeley. Page 5.

and Professor Emeritus at Princeton University, makes the assertion that “the free market...just grew by itself and by itself became the machine that generates innovation and growth in dramatic profusion.”²⁸ Baumol says that such an economy is dependent on particular conditions, including oligopolistic competition, the routinization of innovative activities, the rule of law, and the voluntary pursuit of technology selling and trading.²⁹ While Baumol acknowledges the contributions of human capital made possible through the expansion of education,³⁰ the role of the public research university in the production of new knowledge as a factor in the stimulation of market competition and growth is not recognized. Exclusive emphasis on the free market as a source of innovation is an inaccurate rendering of the history. In both the late nineteenth century and the post-WWII eras, an alliance between private business, government, and institutions of higher education has been crucial to innovation.

The autonomous public research university provides benefits to many interested parties. But this beneficial relationship deteriorates with the decline in unrestricted public funding. The relationship between institutional autonomy and research makes sense when the university receives sufficient levels of unrestricted state funding. Any agreement between the public university and the many parties that benefit from university research programs ceases to fulfill its purpose when unrestricted state funding is withdrawn and substituted with financial support provided by private interests seeking to control the intellectual direction of the university.

In regard to the Faculty’s participation in guiding the intellectual direction of the University of California, the language of an act that preceded the Organic Act of 1868 reveals the state’s earlier intentions to rely on the Faculty’s expertise. In December 1863, the California State Assembly, with the Senate concurring, appointed a committee to determine what was required to secure the benefits of the 1862 Morrill

28. Baumol, W. J. 2002. *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*: Princeton University Press. p. 2.

29. Ibid. pp. 4-5.

30. Ibid. p. 13.

Act.³¹ In March of 1864, the California State Senate, with the concurrence of the Assembly, accepted the benefits of the 1862 Morrill Act.³² In 1866, the California Legislature passed *An Act to Establish an Agricultural, Mining, and Mechanical Arts College* in accordance with article IX of the 1849 Constitution of the State of California.³³ On that same day, the legislature elected a board of directors for the College.³⁴ Section 18 of the 1866 Act assigned to the Faculty a substantial participatory role in the administration of the intellectual direction of the College. It states: “The board of directors, with the advice and consent of the faculty, shall regulate the course of instruction, prescribe the books to be used, and confer upon the graduates such testimonials as they may see proper.” Reflecting the role of the faculty in the administrative structure of the University of Virginia, section nineteen of the 1866 California Act gave the Faculty the authority to “pass all needful rules and regulations necessary to the government and discipline of the college.”³⁵

31. California Legislature. 1864b. Assembly Resolution No. II.—Concurrent Resolution [Adopted December 12, 1863]. Pages 541-542. *The Statutes of California, passed at the Fifteenth Session of the Legislature, 1863-4*. Sacramento, California: State Printer.

32. —. 1864a. California Senate Resolutions. No. XII.—Concurrent Resolution. [Adopted March 31, 1864]. Pages 559. *The Statutes of California, passed at the Fifteenth Session of the Legislature, 1863-4*. Sacramento, California: State Printer.

33. State of California. 1866b. Chapter CCCVIII.—An Act to establish an Agricultural, Mining, and Mechanical Arts College. [Approved March 31, 1866.]. Pages 504-509. *The Statutes of California, passed at the Sixteenth Session of the Legislature, 1865-6*. Sacramento: O. M. Clays, State Printer.

—. 1849. Constitution of the State of California, 1849. (April 12, 2011 <http://www.sos.ca.gov/archives/collections/1849/full-text.htm>) Article IX. Education. Sec. 2. “The Legislature shall encourage, by all suitable means, the promotion of intellectual, scientific, moral and agricultural improvement...” Sec. 4. “The Legislature shall take measures for the protection, improvement, or disposition of such lands as have been, or may hereafter be reserved or granted by the United States, or any person of persons to the State for the use of a University; and the funds accruing from the rents or sale of such lands, or from any other source for the purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said University, with such branches as the public convenience may demand, for the promotion of literature, the arts and sciences, as may be authorised by the terms of such grant. And it shall be the duty of the Legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said University.”

34. —. 1866a. *The Journal of the Assembly, during the Sixteenth Session of the Legislature of the State of California, 1865-6*. Sacramento: O. M. Clays, State Printer. March 31, 1866. pp. 798-809. On March 31, 1866, the legislature also elected a board of directors for the college.

35. Parker, C. H. 1871. *The General Laws of the State of California, From 1864 to*

Empowered by the Board of Regents, the chief responsibility of today's Academic Senate of the University of California is "to authorize, approve, and supervise all courses and to determine the conditions for admissions, certificates, and degrees."³⁶ Another power of the Faculty, essential to the perpetuation of academic independence, is articulated in the Regents Standing Orders: "The Academic Senate shall determine the membership of the several faculties and councils."³⁷ The Senate also has a right of consultation on all planning questions related to the university, excluding some areas. This consultation takes place at both the system-wide and individual-campus levels. This specific consultative right is assigned to the Senate's systemwide University Committee on Planning and Budget (UCPB), and to the campus-level, or divisional academic senate committees on planning and budget. The duties of the systemwide committee, as defined in the Bylaws of the Academic Senate, are to "confer with and advise the President and agencies of the University Administration on policy regarding planning and budget matters and resource allocations," and to "initiate studies in planning and budget matters."³⁸ The membership of the systemwide UCPB includes the chairs of divisional Planning and Budget Committees. The role of the Committee on Planning and Budget of the UC Santa Cruz

1871 Inclusive, Being a Compilation of All Acts of a General Nature... Volume III, Being a Supplement to Hittel's General Laws. San Francisco: A. L. Bancroft and Company. pp. 17 - 20. Section 30 of the Act states: "The college shall not in any manner whatever be connected with or controlled by any sectarian denominations."

36. University of California, Santa Cruz. 2010. *The Manual of the Santa Cruz Division of the Academic Senate*, 2010 Edition. (March 18, 2011, <http://senate.ucsc.edu/senatemanual/ManualAug10/scbAug10.pdf>) p. 1.

37. The Regents of the University of California. 2011d. Standing Orders of The Regents of the University of California: 105. Academic Senate. (March 28, 2011, <http://www.universityofcalifornia.edu/regents/bylaws/standing.html>). Regents Standing Order 105.2c.

38. University of California, Academic Senate. 2011c. "The Manual of the Systemwide Academic Senate". (September 24, 2011, <http://www.universityofcalifornia.edu/senate/manual/>)

See also: —. 2011b. University Committee on Planning & Budget (UCPB). (July 25, 2011, <http://www.universityofcalifornia.edu/senate/committees/ucpb/>) "The University Committee on Planning and Budget (UCPB) discusses and acts on systemwide budgetary, planning, and resource allocation issues. UCPB reviews and comments on the establishment of, or changes to academic units and research units. The chair and other members of the committee also liaise with a number of other systemwide advisory and groups on matters relating to planning and budget."

Academic Senate, as described in the Santa Cruz Division Manual, includes consultation, recommendation, and action:

“The Committee confers with the Chancellor of the University of California, Santa Cruz, concerning the budget and budget policy for the Santa Cruz campus. It makes recommendations to the Chancellor of the University of California, Santa Cruz, and acts for the Santa Cruz Division on all matters concerning planning, including the organization of, and relations among divisions, schools, colleges, departments, and programs of study, Organized Research Units, and the University Library. The Committee acts for the Santa Cruz Division on all proposals for the initiation and abolition of academic programs and on all proposals for their revision when a change of budget is involved.”³⁹

At the University of California, in contrast to Dartmouth College and the University of Virginia where members of the Faculty were appointed by the institution’s governing board, the Faculty have the authority to appraise and recommend candidates for academic appointments and promotions. In accordance with regulations of the Academic Senate, the Chair of an Academic Department initiates the procedures to consider faculty appointments and promotions after consultation with members of departmental faculty. The Bylaws of the Academic Senate of the University of California define Faculty departmental voting rights:

“All tenured faculty in a department have the right to vote on all new departmental appointments that confer membership in the Academic Senate. Prior to such a vote, all the non-emeritae/i departmental members of the Academic Senate must be afforded an opportunity to make their opinions known to the voters...”⁴⁰

The departmental recommendation is then referred to the appropriate committees of the Academic Senate. Acting on the recommendations of the Academic Senate review committee, the Chancellor of the University is authorized to approve recommended appointments and

39. University of California, Santa Cruz, Academic Senate. 2011. Academic Senate, *Santa Cruz Division Manual*. Part I, Bylaws, Chapter 13: Committees, 13.24, Committee on Planning and Budget Charge. (September 25, 2011, <http://senate.ucsc.edu/manual/santacruz-division-manual/part-one-bylaws/chapter-thirteen-committees/13.24-cpb-charge/index.html>). UCSC Academic Senate Bylaws 13.24.2 and 13.24.3.

40. University of California (System) Academic Senate. 2012. Bylaws of the Academic Senate, University of California. Part I. - Membership, Authority and Organization. Title VI. Rights and Authority of Senate Members. Bylaw 55. Departmental Voting Rights. (March 30, 2012, <http://www.universityofcalifornia.edu/senate/manual/blpart1.html#blpart1-VI>)

promotions of Faculty.⁴¹

University course offerings and academic programs are established or discontinued, and periodically reviewed by the Academic Senate's Committee on Educational Policy under the guidance of approved written procedures.⁴² These procedures reflect the Faculty's responsibility and autonomy, assigned by the Regents, for University courses, curricula, and degrees; but they do not include any reference to the curricular requirements of the Morrill Act of 1862, or to the original intellectual structure for the university as described in the Organic Act of 1868. The Bylaws of the Academic Senate of the University of California further define the autonomy of the Faculty in relation to the university's intellectual structure:

"The government of each college and school is vested in its Faculty ... No change in the curriculum of any college or school shall be made by any legislative agency of the Academic Senate until the proposed change has been submitted to the formal consideration of the Faculty concerned."⁴³

Thus, through its control over curriculum and degree granting in the twentieth century, the Faculty of the University of California, as an autonomous administrative body, assumed primary responsibility for providing intellectual direction to the University.

ADMINISTRATIVE AND INTELLECTUAL STRUCTURE: THE DIVISION OF AGRICULTURE AND NATURAL RESOURCES

The University of California's Division of Agriculture and Natural Resources (ANR), a statewide system of research facilities and pro-

41. University of California. 2011. *University of California Academic Personnel Manual*: University of California, Office of the President. (Accessed: April 8, 2011, <http://www.ucop.edu/acadadv/acadpers/apm/>). APM policy sections 200, 210, and 220.

42. For example, see: University of California, Santa Cruz, Office of the Vice Provost for Academic Affairs. 2010. *Academic Program Review Procedures*. (March 3, 2011, http://planning.ucsc.edu/AcadPlan/PgmReview/review_procedures.pdf), University of California, Santa Cruz, Campus Provost and Executive Vice Chancellor, Vice Provost of Academic Affairs. 2010. *Academic Programs and Units: Policy and Procedures Governing Establishment, Disestablishment, and Change*. (March 3, 2011 <http://planning.ucsc.edu/acadplan/PgmApproved/Policy.Sep2010.pdf>)

43. University of California (System) Academic Senate. 2011. Bylaws of the Academic Senate, University of California. Part I. - Membership, Authority and Organization. (March 7, 2011, <http://www.universityofcalifornia.edu/senate/manual/bltoc.html>) See: Bylaw sections 45, 50, and 51.

grams, is responsible for the administration of two programs established by federal legislation related to, and enacted subsequent to the 1862 Morrill Act: the Agricultural Experiment Station (AES), established by the Hatch Act of 1887, and Cooperative Extension (CE), established by the Smith-Lever Act of 1914.

The Division of ANR is positioned within the University of California Office of the President under that office's Provost and Executive Vice President, Division of Academic Affairs. The Vice President of Agriculture and Natural Resources chairs the ANR Executive Council and the ANR Program Council. The administrative structure of ANR extends to the Chancellors of UC's Berkeley, Davis, and Riverside campuses. The ANR Executive Council includes the Deans of the UC Berkeley College of Natural Resources, the UC Davis College of Agriculture and Environmental Science, the UC Davis School of Veterinary Medicine, and the UC Riverside College of Natural and Agricultural Sciences.⁴⁴

The Vice President of ANR functions as the Director of the Agricultural Experiment Station, and the four Deans serve as AES Associate Directors. The AES is categorized as a multi-campus organized research unit within the UC system.⁴⁵

44. University of California, Division of Agriculture and Natural Resources. 2009. *Strategic Vision 2025*. (April 15, 2012, <http://ucanr.edu/files/906.pdf>) See page 7 and Appendix 3.

45. *Ibid.* See Appendix 3.

See also: Gauvain, M., University of California Academic Senate. 2011. Correspondence: November 30, 2011. "Re: Request to VP Allen-Diaz for Senate representation in ANR governance". Author: Mary Gauvain, Chair Academic Council Special Committee on Agriculture and Natural Resources, Chair of the Senate Riverside Division, Professor of Psychology, UC Riverside. Recipient: Robert Anderson, Chair of the Academic Council, University of California Academic Senate. (April 19, 2012, http://www.universityofcalifornia.edu/senate/reports/RMA2Allen-Diaz_Senate_ANRrepresentation.pdf) Excerpt: "The ANR Program Council comprises 12 members from the UC ANR administration, including Associate Director Frost, the four Associate Deans from the 3 AES campuses, 5 ANR Strategic Initiative leaders, and two ANR county-based advisors. There are also 3 ex-officio members (2 ANR senior staff members and the Associate Dean for Extension, School of Veterinary Medicine at UC Davis). This Council meets monthly for two days and coordinates Division-wide planning and delivery of programs and develops recommendations for the allocation of Division resources."

See also: University of California Office of the President. 1999. Administrative Policies and Procedures Concerning Organized Research Units. December 7, 1999. (April 22, 2012, <http://www.ucop.edu/ucophome/coordrev/policy/12-07-99.html> and <http://www.ucop.edu/ucophome/coordrev/policy/12-07-99att.pdf>).

Excerpt: The MRU (Multi-campus Research Unit) category includes all units with facilities and personnel on two or more campuses or locations associated with them. Page 3: "MRUs

The Division of ANR is funded directly by the University of California Office of the President⁴⁶ and receives additional funding for the AES and CE programs from the USDA according to statutory formulas with a requirement that the funds be matched at 100 percent by non-federal sources.⁴⁷

In November 2010, ANR's administration became a subject of concern when the Academic Council of UC's Academic Senate reported a statement made by the Chair of the University Committee on Planning and Budget (UCPB): ANR had proposed a redirection of money from two endowments to fund Cooperative Extension and other ANR programs in the state.⁴⁸ The UC Davis campus administers the two endowments, but funds from the endowments are distributed to other UC campuses and to county personnel throughout California.⁴⁹ ANR's

are responsible to the President and report through a Chancellor or Chancellor's designee at the campus hosting the MRU's administrative headquarters; the President retains ultimate responsibility for matters of general policy and intercampus coordination and the Chancellor or Chancellor's designee oversees the MRU's administrative relationship with the campus. The Directors of the Agricultural Experiment Station ... report to the Vice President of Agriculture and Natural Resources and insure that the Chancellors are kept informed of all impending substantial changes in these units and that effective administrative liaison with the Chancellors is maintained."

46. University of California Academic Senate, Academic Council. 2010b. Minutes of Meeting: Wednesday, December 15, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/council/Council.12.15.10.minutes.pdf>)

University of California (system) Academic Senate, University Committee on Planning and Budget (UCPB). 2011. Minutes of Meeting, April 4, 2011. (April 24, 2012, http://www.universityofcalifornia.edu/senate/committees/ucpb/UCPBApril2011Minutes_000.pdf)

47. United States Department of Agriculture, National Institute of Food and Agriculture (NIFA). 2012c. Hatch Act Formula Grant. (May 3, 2012, <http://www.nifa.usda.gov/business/awards/formula/hatch.html>)

—. 2012b. Smith-Lever Act Formula Grant. (May 3, 2012, <http://www.nifa.usda.gov/business/awards/formula/smithlever.html>)

48. University of California Academic Senate, Academic Council. 2010a. Minutes of Meeting: Wednesday, November 22, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/council/Council.11.22.10.minutes.pdf>)

49. The ANR Research and Extension Centers Administration Office (ANR REC AO) is located at the UC Davis campus and is administered by an individual holding the positions of Associate Director of Cooperative Extension and the Agricultural Experiment Station, and Director ANR Research & Extension Center System. The University of California operates a system of nine agriculture and natural resource research and education centers located throughout California: Desert REC, Hansen Trust, Hopland REC, Intermountain REC, Kearney REC, Lindcove REC, Sierra Foothill REC, South Coast REC, and West Side REC. See: http://ucanr.org/sites/rec/About_Us/

decision, which would have affected graduate fellowships and faculty research programs in academic departments on campuses throughout the UC system, appeared to have been made without academic planning or consultation with the Academic Senate. To answer ANR's unilateral decision, the Chair of UCPB suggested to the Academic Council that a Senate Special Committee be established to provide oversight of ANR.⁵⁰

At its December 15, 2010 meeting, the Academic Council approved the following resolution to ask for the establishment of a Special Committee for oversight of ANR's activities:

"Resolved: The Academic Council shall ask the President to ensure that regular consultation concerning all of ANR's activities occur with the standing committees of the Assembly of the Academic Senate, and shall ask the Senate Chair and Vice Chair to develop and propose a charge, including suggested membership, for an appropriately constituted Special Committee of the Academic Council on Agriculture and Natural Resources."⁵¹

On February 4, 2011, the Chair of the Academic Council wrote to the Vice President of ANR to request that the Division suspend its plans to redirect the endowment funds,⁵² in accordance with the following res-

50. University of California Academic Senate, Academic Council. 2010a. Minutes of Meeting: Wednesday, November 22, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/council/Council.11.22.10.minutes.pdf>) See also: University of California Academic Senate, University Committee on Planning and Budget (UCPB). 2010. Minutes of Meeting: December 7, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/ucpb/ucpb.12.7.10.minutes.pdf>)

University of California Academic Senate, Academic Council. 2010b. Minutes of Meeting: Wednesday, December 15, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/council/Council.12.15.10.minutes.pdf>)

University of California Academic Senate, Assembly of the Senate, Chalfant, J. A., Carmody, J., Kolaitis, P. 2011. Correspondence. January 14, 2011. Re: Redirection of Endowment Funds (Kearney Foundation of Soil Science; Slosson Ornamental Horticulture Endowment). Authors: James A. Chalfant, Chair, University Committee on Planning and Budget (UCPB), Assembly of the Academic Senate; James Carmody, Chair, Coordinating Committee on Graduate Affairs (CCGA); Phokion Kolaitis, Chair, University Committee on Research Policy (UCORP). Recipient: Dan Simmons, Chair, Academic Council of the University of California Academic Senate. (April 18, 2012, http://www.universityofcalifornia.edu/senate/reports/DS_Dooley_redirectionDANREndowments.pdf)

51. University of California Academic Senate, Academic Council. 2010b. Minutes of Meeting: Wednesday, December 15, 2010. (April 28, 2012, <http://www.universityofcalifornia.edu/senate/committees/council/Council.12.15.10.minutes.pdf>)

52. University of California Academic Senate, Simmons, D. L. 2011b. Correspondence:

olution that had been unanimously endorsed by the Academic Council in January of that year:

“Be it resolved: The Academic Council requests that ANR suspend the redirection of funds from endowments, including those from the Kearney Foundation of Soil Science and the Elvenia Slosson Ornamental Horticulture Endowment, along with any other such endowments, pending full consultation with the committees of the Academic Senate, concerning the effects of the reallocation of endowment funds on research and graduate education and concerning the importance of the proposed new research initiatives.”⁵³

On February 23, 2011, the Academic Council approved the membership and charge for a new Special Committee: the Academic Council Special Committee on Agriculture and Natural Resources (ACSCANR). The committee was charged with the following responsibilities:

“Charge: To consult with leadership from the Division of Agriculture and Natural Resources (ANR), on a regular basis, to review the mission and strategic objectives of the Division, and to consider issues related to the ANR budget, the Division’s academic and capital planning, and the intersection of its academic and outreach missions. The Special Committee shall report its findings to the Academic Council, and to the relevant standing committees of the Academic Senate annually. The Special Committee will regularly consider the academic planning aspects of budgetary allocations to ANR. The Committee will advise the Academic Council concerning how any issues before the Academic Senate, or under consideration by ANR, affect the overall quality and success of ANR programs and their relationship to the academic mission of the University. The Task Force shall monitor ANR’s role within the overall teaching, research, and public service missions of the University, and evaluate ANR’s abil-

February 4, 2011. Re: Redirection of Endowment Funds. Author: Daniel L. Simmons, Chair of the Assembly and the Academic Council, University of California Academic Senate. Recipient: Vice President Dan Dooley, Agriculture and Natural Resources, University of California. (April 18, 2012, http://www.universityofcalifornia.edu/senate/reports/DS_Dooley_redirectionDANRendowments.pdf)

53. Ibid.

University of California Academic Senate, Assembly of the Senate, Chalfant, J. A., Carmody, J., Kolaitis, P. 2011. Correspondence. January 14, 2011. Re: Redirection of Endowment Funds (Kearney Foundation of Soil Science; Slosson Ornamental Horticulture Endowment). Authors: James A. Chalfant, Chair, University Committee on Planning and Budget (UCPB), Assembly of the Academic Senate; James Carmody, Chair, Coordinating Committee on Graduate Affairs (CCGA); Phokion Kolaitis, Chair, University Committee on Research Policy (UCORP). Recipient: Dan Simmons, Chair, Academic Council of the University of California Academic Senate. (April 18, 2012, http://www.universityofcalifornia.edu/senate/reports/DS_Dooley_redirectionDANRendowments.pdf)

ity to carry out its activities in a manner that supports the standards of excellence in teaching, research, and public service consistent with the University's responsibilities under the California Master Plan. Recommended Task Force Membership..."⁵⁴

At the April 4, 2011 meeting of the University Committee on Planning and Budget (UCPB), the Associate Vice President of the Division of ANR met with UCPB members to discuss several issues related to ANR's budget and the new special committee. As reported in the minutes of the meeting, one UCBP member commented on ANR's decision to redirect endowment funds without consulting the Academic Senate. In reply to the comment, the Associate Vice President said that "ANR operates under shared governance principles, and those decisions were vetted with councils comprised of faculty members, deans, and program directors from the ANR campuses."⁵⁵ In response, UCPB members said that the Academic Senate "has a responsibility to advise on budget through its established committee structure," and that "Deans and program directors do not report to the Academic Council."⁵⁶ From this exchange, it can be understood that ANR was operating outside of the University's established administrative structure. In additional comments made during the meeting, UCPB members questioned why "land-grant status" would privilege only three UC campuses, and said that greater faculty involvement is needed in ANR's decision-making processes.⁵⁷

At its meeting on October 31, 2011, the ACSCANR met at the Office of the President. The meeting was focused on the issue of shared governance and how the Academic Senate will be involved in ANR's

54. University of California Academic Senate, Simmons, D. L. 2011a. Correspondence: March 8, 2011. "Re: Academic Council Special Committee on Agriculture and Natural Resources." Author: Daniel L. Simmons, Chair of the Assembly and the Academic Council of the Academic Senate of the University of California. Recipients: Mark Yudof, President, University of California; Daniel Dooley, Vice President ANR, University of California. (April 19, 2012, http://www.universityofcalifornia.edu/senate/reports/MGY_DooleyreANRSpecialCommittee_FINAL.pdf)

55. University of California (system) Academic Senate, University Committee on Planning and Budget (UCPB). 2011. Minutes of Meeting, April 4, 2011. (April 24, 2012, http://www.universityofcalifornia.edu/senate/committees/ucpb/UCPBApril2011Minutes_000.pdf)

56. *Ibid.*

57. *Ibid.*

decision-making processes.⁵⁸

The ACSCANR charge includes reviewing the mission and strategic objectives of the Division of ANR. The Division's mission and objectives are conveyed in a 2009 document titled "Strategic Vision 2025,"⁵⁹ which was developed by a steering committee appointed by ANR, five working groups comprised of ANR academics, staff, and external stakeholders, and an independent consultant that conducted a survey of "opinion leaders."⁶⁰ The steering committee was co-chaired by the Vice President of Agriculture and Natural Resources and UC Regent Fred Ruiz, a co-founder of Ruiz Foods.⁶¹ The contributions of the working groups and the consultant were synthesized by ANR's Program Council to produce the Strategic Vision 2025 document.⁶² We found no evidence that the UC Academic Senate was given an opportunity to review this document prior to publication. As described in the document, the UC ANR system includes "four colleges or schools on three UC campuses"; however, the document also states that ANR programs "connect faculty from ANR campuses and counties with UC

58. Gauvain, M., University of California Academic Senate. 2011. Correspondence: November 30, 2011. "Re: Request to VP Allen-Diaz for Senate representation in ANR governance". Author: Mary Gauvain, Chair Academic Council Special Committee on Agriculture and Natural Resources, Chair of the Senate Riverside Division, Professor of Psychology, UC Riverside. Recipient: Robert Anderson, Chair of the Academic Council, University of California Academic Senate. (April 19, 2012, http://www.universityofcalifornia.edu/senate/reports/RMA2Allen-Diaz_Senate_ANRrepresentation.pdf)

59. University of California, Division of Agriculture and Natural Resources. 2009. *Strategic Vision 2025*. (April 15, 2012, <http://ucanr.edu/files/906.pdf>). See page 7 and Appendix 2 for members of the ANR Strategic Planning Steering Committee and ANR Program Council.

60. *Ibid.* Page 38.

The consultant for "Strategic Vision 2025" was Kerry Tucker of Nuffer Smith Tucker Public Relations, who "co-founded Food Foresight, a trends intelligence system for the agri-food chain and serves on a number of university boards and the State Board of Food and Agriculture." See: Nuffer Smith Tucker Public Relations. 2012. About Kerry Tucker. (May 7, 2012, <http://nstrpr.com/blog/about-kerry-tucker/>)

61. Dooley, D. M. 2009. Editorial: "Focus on the future: Implementing the ANR strategic vision". *California Agriculture* 63, Number 3: 106. The ten-person ANR strategic planning steering committee was co-chaired by then Vice President of Agriculture and Natural Resources Daniel M. Dooley and UC Regent Fred Ruiz, a co-founder of privately held frozen food company Ruiz Foods.

62. University of California, Division of Agriculture and Natural Resources. 2009. *Strategic Vision 2025*. (April 15, 2012, <http://ucanr.edu/files/906.pdf>) See Appendix 2. See also: Dooley, D. M. 2009. Editorial: "Focus on the future: Implementing the ANR strategic vision". *California Agriculture* 63, Number 3: 106.

faculty from all the other campuses, allowing integrated teams to work on complex issues that need multidisciplinary approaches.”⁶³ However, as we learned from the minutes of the April 4, 2011 UCBP meeting, UC faculty from all the other campuses, represented by the Academic Senate, were not involved in ANR’s planning processes.

The Division of ANR and the “land-grant” university

The University of California’s Division of ANR identifies itself as being the “land-grant arm” of the University, and defines its programs as conforming to the University’s “land grant mission.”⁶⁴ Referring to the Hatch Act of 1887 in its handbook for Cooperative Extension specialists, the College of Agricultural and Environmental Sciences at UC Davis states: “Hatch projects are related to the land-grant status of the UC system. Although UC has land-grant status, the resources associated with the land-grant status of UC are divided between UC Berkeley, UC Riverside, and UC Davis.”⁶⁵ This statement implies that not all of the University’s resources and projects are associated with its “land-

63. University of California, Division of Agriculture and Natural Resources. 2009. Strategic Vision 2025. (April 15, 2012, <http://ucanr.edu/files/906.pdf>) p. 2.

See also: University of California Office of the President. 2011. *2011-12 Budget for Current Operations: Budget Detail*. (February 27, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) pp. 62-63 and 70-72. Excerpt from pages 62-63: “Statewide programs focus on specific issues that engage ANR academics and faculty from all UC campuses, allowing integrated teams to work on complex issues that require multi-disciplinary approaches.”

64. University of California, Agriculture and Natural Resources (ANR), ANR Employees. 2012. “Vice President”. (April 22, 2012, http://ucanr.org/sites/anrstaff/Administration/Vice_President/)

Source of the phrase “land-grant arm”: “Because the Division is the land-grant arm of the University, the Vice President serves as director of the California Agricultural Experiment Station and of California Cooperative Extension, as well as chair of the ANR Executive Council.”

University of California, Division of Agriculture and Natural Resources. 2008. “2009-2013 Combined Research and Extension Federal Annual Plan of Work: Agricultural Experiment Station and Cooperative Extension”. (April 22, 2012, <http://ucanr.org/sites/anrstaff/files/658.pdf>)

Source of the phrase “land grant mission”: The success of ANR in meeting the land grant mission and in serving the needs of California depends on the collaboration, cooperation, and coordination among the AES and CE campus and county programs.

65. University of California, Davis, College of Agricultural and Environmental Sciences. 2010. “Cooperative Extension Specialist Mentoring Guide”. (April 25, 2012, <http://caes.ucdavis.edu/facstaff/ce/ce-mentor-handbook.pdf>) p. 30.

grant status,” but does not offer a definition for the phrase “land-grant status.”

The 1862 Morrill Act is the source for the terms “land-grant arm,” “land-grant mission,” and “land-grant status” as they apply to the public research university. Section One of the 1862 Act states: “Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land.”⁶⁶ The purpose of the 1862 Morrill Act’s grant of public lands to the states was to provide funding for an endowment. The grant of public lands is only one aspect of the Act and by itself does not define the purpose of the institutions to be established and endowed under the terms of the Act. Given that the lands granted to the states under the provisions of the 1862 Act were the foundation for the establishment of an endowment, to identify the institutions established under the Morrill Act simply by the term “land-grant” would be equivalent to saying that they are a set of institutions that received funding from the federal government. But, the 1862 Act granted public lands to the states to generate revenue to endow institutions with a defined purpose and goal. The granted lands were to be sold to provide revenue for the “endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies...to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life.”⁶⁷

The grant of public lands for higher education is not unique to the 1862 Morrill Act, and the institutions established under the terms of the 1862 Act are not unique in having received support provided in the form of granted lands. Recall that Dartmouth College was the recipient

66. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

67. *Ibid.*

of land grants intended to support its operations and to provide scholarships to needy students; however, these grants of land were unrelated to the College's intellectual direction. In contrast, the 1862 Morrill Act linked its funding provisions to the intellectual direction and purpose of the institutions to be established under its provisions.

A history of the names chosen to identify the institutions established under the 1862 Morrill Act is presented in a 1922 Bulletin of the Bureau of Education.⁶⁸ The Bulletin introduces its chronicle of institutional identification with the language from the 1862 Morrill Act, which the Bureau interprets as having "contemplated a system of institutions."⁶⁹ As stated in the 1862 Act, the purpose of the system of institutions is "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."⁷⁰ The phrase "colleges for the benefit of agriculture and the mechanic arts" is included in the title of the 1862 Act, and also appears in the 1890 Morrill Act. The Hatch Act of 1887 also includes the phrase "colleges for the benefit of agriculture and the mechanic arts." The Smith-Lever Act of 1914 includes the phrases "colleges for the benefit of agriculture and the mechanic arts," "the agricultural colleges," and "State agricultural college." A federal appropriations Act of 1895 uses the phrase "colleges of agriculture and the mechanic arts" in relation to appropriations for the Bureau of Education,⁷¹ and the author of the 1922 Bulletin says that this phrase continued to be used in federal appropriations acts until 1902, when the phrase "land-grant college" was used instead: "... specialist in charge of land-grant college statistics, one thousand eight

68. United States Department of the Interior, Bureau of Education, Blauch, L. E. 1923. *Statistics of Land-Grant Colleges, Year Ended June 30, 1921*. Bulletin, 1922, No. 34. Washington, D.C.: Government Printing Office. Pp. 2-5.

69. *Ibid.* p. 3.

70. United States Congress. 1862. Chapter CXXX. – "An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts." (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

71. —. 1895. An Act Making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and ninety-six, and for other purposes. March 2, 1895. Fifty-third Congress, Session III. Chapter 177 (28 Stat. 764). Appropriations for Bureau of Education, at 798. Washington, D.C.: Government Printing Office.

hundred dollars...”⁷²

In relation to the names of the institutions established under the provisions of the 1862 Morrill Act, the 1871 “Report of the Commissioner of Education” places an emphasis on both the importance of funding source and institutional purpose:

“The newspapers and the public generally use the term ‘agricultural colleges,’ which is not only incorrect, but injurious, because it cherishes a notion that these foundations are only for the promotion of agricultural education. The term ‘colleges of agriculture and the mechanic arts’ would be much more appropriate, though not quite comprehensive enough, and it is too long a phrase to become popular. As these institutions are largely indebted to the bounty of the National Government, and are called upon to make an annual report of their progress, it seems fit that this fact should be employed to distinguish the group from other kindred foundations which have no congressional aid. The term ‘National’ schools of science (or scientific schools) has been elsewhere proposed as a generic designation. Either ‘national’ or ‘governmental,’ or ‘United States,’ would seem to be a suitable prefix for the class of colleges and schools which are so largely indebted to the congressional endowment. It is to be hoped that, by the action of the Department or by common consent of the authorities of the various institutions, some designation more correct than ‘agricultural colleges’ will come into vogue.”⁷³

The 1922 Bulletin’s author, identified in the report as “a specialist in charge of land-grant college statistics,” questions whether “the words ‘agricultural college’ apply to the whole institution or only to the department, division, or college of agriculture of the institution of which it forms a part,” and finally states that he has chosen to use the term “land-grant colleges” in his report because the phrase “agricultural colleges” should refer only to the “agricultural departments in the land-grant colleges, and that “to use it as a generic name for the institutions is obviously not in keeping with the facts, since their agricultural work does not

72. —. 1902. An Act Making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, nineteen hundred and three, and for other purposes. April 28, 1902. Fifty-Seventh Congress. Session I. Chapter 594 (32 Stat. 120) Bureau of Education at 161. Washington, D.C.: Government Printing Office.

73. United States Congress, U.S. Department of the Interior, Bureau of Education. 1871. Report of the Commissioner of Education. Report on the National Schools of Science. Want of a Generic Name for these Institutions. Report of the Secretary of the Interior; being part of the message and documents communicated to the two houses of Congress at the beginning of the second session of the forty-second Congress. Volume II. [U.S. Congressional Serial Set Volume No. 1506, Session Volume No. 3, 42nd Congress, 2nd Session, H.Exec.Doc. 1 pt.5, v.2]. Washington, D.C.: Government Printing Office. pp. 431-432.

cover one-half of the actual work of instruction they carry on.”⁷⁴

It is a common misperception that the public research universities established under the provisions of the 1862 Morrill Act were built on the public lands granted to the states. The use of the phrases “land-grant arm” and “land-grant mission” by ANR contributes to the confusion surrounding the relation between the University and the granted lands. These “land-grant” references are ambiguous in relation to the statutory purposes of the institution and might be interpreted to mean that the three University of California campuses associated with the programs administered by ANR are the only campuses that are actually built on land granted to the state by the federal government, and are, therefore, the only campuses that are qualified to carry out the mission of the 1862 Act. These misperceptions can be addressed in part by reviewing the terms of the 1862 Morrill Act.

The full title of the 1862 Act includes a reference to grants of land made to the states: *An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts*. As defined by the Act, the endowment is to be applied to the support of “at least one college,” which means that one or more colleges in a state are eligible to receive the benefit of the endowment. Section One of the Act grants public land to the states. Section Two defines the land selection process. Section Four directs the states to sell the granted public lands and invest the proceeds from the sales. Section Four also defines the invested money as an endowment and directs the states to apply the interest from that endowment to an institution of higher education with a defined intellectual direction and specific goal:

“...the moneys so invested...shall constitute a perpetual fund, the capital of which shall remain forever undiminished...the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this Act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of

74. United States Department of the Interior, Bureau of Education, Blauch, L. E. 1923. *Statistics of Land-Grant Colleges, Year Ended June 30, 1921*. Bulletin, 1922, No. 34. Washington, D.C.: Government Printing Office.

the industrial classes on the several pursuits and professions in life.”⁷⁵

The University of California was granted a total of 150,000 acres of public lands under the terms of the 1862 Morrill Act.⁷⁶ Article IX, Section 9, subsection (f) of the California Constitution provides evidence that these public lands were sold. The current version of the Constitution states: “The Regents shall receive all funds derived from the sale of lands pursuant to the act of Congress of July 2, 1862, and any subsequent acts amendatory thereof.”⁷⁷ The process for selecting and selling the lands and investing the proceeds is described in the California Public Resources Code, which contains the imprecise term “agricultural college”:

Section 8101: “The Regents of the University of California may order the selection of the 150,000 acres of land granted to the State for the use of an agricultural college, and dispose of the land at the price and in the manner fixed by them.”⁷⁸

Section 8102: “The land agent of the university, as the agent of the State, shall select the lands according to the instructions of the board, and issue certificates of purchase and patents to purchasers who comply with the conditions fixed by the board. The Regents shall invest all moneys accruing from the sale of lands as they may deem best, subject to the conditions of the act of Congress granting such lands.”⁷⁹

75. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

76. The Regents of the University of California, Secretary to the Board of Regents. 1891. “Report of the Land Agent”. Pages 92-121. *Annual Report of the Secretary to the Board of Regents of the University of California for the Year Ending June 30, 1891*. Sacramento, California: State Printing Office. “Congressional Land Grant of 150,000 Acres.” p. 92.

United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>). Excerpt: “...thirty thousand acres for each senator and representative in Congress to which the States are respectively entitled by the apportionment under the census of eighteen hundred and sixty.”

77. State of California. 1879b. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011, http://www.leginfo.ca.gov/.const/.article_9)

78. —. California Public Resources Code. Chapter 5. Section 8101-8106. Sale of University Lands. (April 24, 2012, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&gro up=08001-09000&file=8101-8106>)

79. *Ibid.*

According to an 1891 *Report of the Land Agent of the University of California*, by June 30, 1891, the University had selected 149,919.29 acres of public lands within the state of California.⁸⁰ The public lands selected by the University were patented by individuals and companies. A “land patent” is defined as “an instrument by which the government conveys a grant of public land to a private person.”⁸¹ The University’s 1891 land agent report contains a list of land patents issued between April 29, 1872 and June 30, 1891. The list includes the names of the land patentees, the number of acres patented, and the dates of the land patents. On June 30, 1891, the total number of acres patented was 129,624.95, and there was a total of 5,578.98 acres of unsold lands remaining within the following California Counties: El Dorado, Fresno, Inyo, Kern, Lassen, Monterey, Mendocino, Nevada, San Benito, San Luis Obispo, San Mateo, Tulare, and Yuba.⁸² Note that none of these remaining acres were located in Riverside, Yolo, or Solano Counties, where the University’s Davis and Riverside branches were established in the early twentieth century.

In the Appendix of the 1910-1912 Biennial Report of the President of the University, a schedule of “Real Estate and Improvements Not in Berkeley” includes an entry for “Congressional Lands” with the note: “This is 3954.47 acres of land still on hand from the original grant of 150,000 acres; all have once been sold, but these have come back to the University by foreclosure or cancellation of contracts.”⁸³

According to the Centennial Record of the University of California, in 1965 the University held about 480 acres of unsold Morrill Act

80. The Regents of the University of California, Secretary to the Board of Regents. 1891. “Report of the Land Agent”. Pages 92-121. *Annual Report of the Secretary to the Board of Regents of the University of California for the Year Ending June 30, 1891*. Sacramento, California: State Printing Office. p. 95-96.

81. Garner, B. A., ed. 1999. *Black’s Law Dictionary (Seventh Edition)*. “patent” (land patent), p. 1147. St. Paul, Minnesota: West Group.

82. The Regents of the University of California, Secretary to the Board of Regents. 1891. “Report of the Land Agent”. Pages 92-121. *Annual Report of the Secretary to the Board of Regents of the University of California for the Year Ending June 30, 1891*. Sacramento, California: State Printing Office. pp. 98-121, 97.

83. The Regents of the University of California. 1912. 1910-1912, Biennial Report of the President of the University on behalf of the Regents to His Excellency the Governor of the State. (May 6, 2012, <http://www.oac.cdlib.org/view?docId=hb8x0nb5hb&query=&brand=calisphere>)

lands located within Lake, Lassen, Mendocino, San Mateo, and Kern counties.⁸⁴ A 1983 report of UC's land holdings for the years 1976 and 1982 indicates that UC still held a total of 480 acres of "Congressional Lands" located within Kern, Lake, Lassen, Mendocino, Nevada, and San Mateo counties.⁸⁵ California Government Code required the University of California to submit by 1988 a record of each parcel of real property it possessed, and to provide updates of its real property holdings, reflecting any changes, by July 1 of each year to the California Department of General Services.⁸⁶

In response to our request for information submitted to the Regents of the University of California, we received an inventory and land transfer history of the Congressional Lands still held by the University of California in 1965. This inventory, at variance with our other sources in terms of the number of remaining acres, provided sales information for approximately 520 acres of Morrill Act lands located in Kern, Lake, Lassen, Mendocino, Nevada, and San Mateo counties (See Table 9.3).⁸⁷ In 2002, the University of California sold the last remaining acres of the public lands granted to the state under the provisions of the 1862 Morrill Act.

84. Stadtman, V. A. 1967. *The Centennial Record of the University of California*. (April 15, 2012, http://content.cdlib.org/view?docId=hb4v19n9zb&chunk.id=div00707&brand=calisp+here&doc.view=entire_text) p. 375.

85. California Department of General Services. 1983. Report by the Office of the Auditor General to the Joint Legislative Audit Committee: University of California Property Management, January 1983. Appendix A: Academic Property Owned by the University of California in 1976 and in 1982. (May 6, 2012, <http://www.documents.dgs.ca.gov/resd/pubs/rfp/auditorjan1983.pdf>)

86. California Legislature. 1986. Government Code. Title 2. Government of the State of California. Division 3. Executive Department. Part 1. State Departments and Agencies. Chapter 1. State Agencies. Article 1. General. Section 11011.17. (a). (Added by Stats. 1986, Ch. 907, Sec. 4.). Section 11011.17. (a).

87. Lenz, P. J., Vice President—Budget and Capital Resources, University of California Office of the President. 2012. Correspondence (4 pages). May 22, 2012. "Re: Congressional Lands Information Request." Enclosure: "Sales History for Congressional Lands." Author: Patrick J. Lenz. Recipient: Renée Flower. cc. Associate Vice President Wylie, Analyst Smith. Response to R. Flower's request to the Regents of the University of California for "information regarding the real property received by the University of California under the provisions of the 1862 Morrill Act commonly known as Congressional Lands."

Note: While not included in Table 9.3, the inventory also included Township, Range, and Meridian coordinates for the properties in each of the six counties listed.

Table 9.3 1862 Morrill Act Congressional Lands Held by The Regents of the University of California in 1965 (1)	
Land Locations Total: 519.85 +/- acres	Land Transfer History
Kern County Total: 40 +/- acres	Sold 05/18/1984 for \$8,000 to a private party.
Lake County Total: 160.34 +/- acres	Sold: <ul style="list-style-type: none"> • 08/19/1981: 13.36 +/- acres for \$36,000 to California State Department of Forestry (mineral rights reserved). • 07/18/1989: 80 +/- acres for \$22,000, to a private party. • 07/18/1989: 66.975 +/- acres for \$28,000 to a private party.
Lassen County Total: 40 +/- acres	Sold: 40 +/- acres (referenced as sold with no further information).
Mendocino County Total: 159.51 +/- acres	Sold: <ul style="list-style-type: none"> • 1/19/1979: 40 +/- acres for \$4,500 to a private party. • 09/02/1982: 39.51 +/- acres for \$16,500, to a private party. • 03/20/1986: 40 +/- acres for \$19,200 to a private party (mineral rights reserved). • 07/13/1993: 40 +/- acres for \$151,000 to a private party (mineral rights reserved).
Nevada County Total: 40 +/- acres	Sold 12/31/1984 for \$20,000 to Boy Scouts of America.
San Mateo County Total: 80 +/- acres	Sold 05/30/2002 for \$720,000 to Save the Redwoods League (Sale of last remaining property acquired by the University of California under the provisions of the 1862 Morrill Act).
Sources for Table 9.3:	
1. Lenz, P. J., Vice President—Budget and Capital Resources, University of California Office of the President. 2012. Correspondence (4 pages). May 22, 2012. “Re: Congressional Lands Information Request.” Enclosure: “Sales History for Congressional Lands.” Author: Patrick J. Lenz. Recipient: Renée Flower. Cc. Associate Vice President Wylie, Analyst Smith. Response to R. Flower’s request to the Regents of the University of California for “information regarding the real property received by the University of California under the provisions of the 1862 Morrill Act commonly known as Congressional Lands.” Note: While not included in Table 9.3, the inventory also included Township, Range, and Meridian coordinates for the properties in each of the six counties listed.	

Another approach to dispelling the notion that the institutions established under the 1862 Morrill Act were built on lands granted to the state is to examine the land acquisition histories for the three UC general campuses associated with UC's Division of ANR and compare these to the land acquisition histories of the other six general campuses of the UC system.⁸⁸ As discussed above, the three campuses linked to the Division of ANR's programs that are defined as parts of the University's "land-grant arm," are UC Berkeley, UC Davis, and UC Riverside. We will also look at the early history of the UC Los Angeles campus, in relation to its former College of Agriculture.

The University of California's first College of Agriculture was established in 1868 at the UC Berkeley campus. The lands occupied by the UC Berkeley campus were acquired from the College of California a year before the California Legislature passed the Organic Act of 1868 that established the University of California.⁸⁹

In 1905, the California Legislature approved legislation that provided funds for the purchase of land for a university farm for UC Berkeley's College of Agriculture.⁹⁰ In 1906, the University of California purchased 778 acres of land in Yolo County (the Jerome C. Davis farm) for \$104,250.⁹¹ A non-degree agricultural program at the University's new farm school opened in October 1908. A four-year degree program was initiated at the campus in 1922, and the farm school course was continued as non-degree program. By 1951, the University Farm had grown to 3,000 acres. In 1959, UC Davis became a general campus of

88. We have not included the land acquisition history of UC San Francisco, which is the only UC campus dedicated exclusively to the health sciences. It is not a general campus. A history of UCSF is available at the UCSF Library website: <http://history.library.ucsf.edu/index.html> (Accessed: May 23, 2012)

89. Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company. Pp. 31-32.

90. California Legislature. 1905b. Chapter CXXIX. An Act providing for the purchase of a university farm for the use of the college of agriculture of the University of California; providing for the appointment of a commission to select and purchase said farm, providing for a school of agriculture and a system of instruction on said farm and appropriating money therefor. [Approved March 18, 1905]. Pages 131-133. *The Statutes of California and Amendments to the Codes passed at the Thirty-sixth Session of the California Legislature*.

91. University of California History Digital Archives. 2004c. University of California General History: The Ten Campuses: Davis: Historical Overview. (April 15, 2012, http://ucblibrary3.berkeley.edu/uchistory/general_history/campuses/ucd/overview_print.html)

the UC system. The UC Davis Graduate Division was established in 1961, a College of Engineering was established at the campus in 1962, the School of Law was established in 1964, and the first students were admitted to the UC Davis School of Medicine in 1968.⁹²

In 1905, the California Legislature also approved legislation that provided funding for the establishment of a pathological laboratory and an agricultural experiment station in Southern California.⁹³ Section five of the act states:

“Section 5. Said commissioners [as defined in Section 2: “the governor of the state, the president of the University of California, and the professor of agricultural practices of the University of California”] shall also establish and maintain a branch agricultural experiment station or stations under the provisions of this act within the territory described in section two of this act for the purpose of carrying on experimental and investigational work in connection with the agricultural experiment work of the University of California...”⁹⁴

In 1907, under the terms of the 1905 legislation, the University leased 23 acres of land on the eastern slope of Mt. Rubidoux in Riverside County for an experiment station.⁹⁵ In 1913, the California Legislature appropriated sixty thousand dollars for the purchase of land and water rights in southern California for the use of the University of California’s College of Agriculture,⁹⁶ and in 1917, the experiment sta-

92. Ibid.

Kerr, C. 2001. *The Gold and the Blue: A Personal Memoir of the University of California, 1949-1967*. Berkeley, California: University of California Press. Volume One, p. 303.

93. California Legislature. 1905a. Chapter CCLXXVIII. Approved March 18, 1905. An act providing for the establishment and maintenance of a pathological laboratory, for the investigation of tree and plant diseases and pests, and branch agricultural experiment station, and making an appropriation therefor. Pages 249-251. *The Statutes of California and Amendments to the Codes passed at the Thirty-Sixth Session of the California Legislature*. Sacramento, California: W.W. Shannon, Superintendent State Printing.

94. Ibid. Section 5, p. 250.

95. University of California History Digital Archives. 2004b. University of California General History: The Ten Campuses: Riverside, Historical Overview. (April 15, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucr/overview.html)

96. California Legislature. 1913. Chapter 437. An act providing for the purchase, for the use of the department of agriculture of the University of California, of land and water rights in any of the counties of Los Angeles, Riverside, Orange, San Bernardino, San Diego, Imperial, Ventura, or Santa Barbara, and for the planting of said lands and making an appropriation therefor. Approved June 9, 1913. In effect August 10, 1913. Pages 875-876. *Statutes of California and the Amendments to the Codes passed at the Fortieth session of*

tion was moved to another site in Riverside County.⁹⁷ The experiment station in Riverside County was the precursor to the UC Riverside campus. In 1948, the Regents approved the establishment of the College of Letters and Science at UC's Riverside branch, and the College opened in 1954. The Regents declared Riverside a general campus of the UC system in 1959, and the graduate division was established in 1960.⁹⁸ In 1961, the Riverside experiment station was named the Citrus Research Center and Agricultural Experiment Station.⁹⁹

In 1919, the California Legislature approved an act establishing a branch of the University of California at Los Angeles.¹⁰⁰ Section Three of the act describes the original 25-acre site selected for the campus:

"In the place and stead and on the site of the Los Angeles State Normal School the regents of the University of California shall, during the year commencing July 1, 1919, and thereafter, maintain and conduct at Los Angeles a branch of the University of California under such designation as shall be fixed by the regents for the purpose of providing, and at which the regents shall provide such freshman and sophomore courses of university grade as they may from time to time deem proper..."¹⁰¹

In 1925, after considering 17 possible sites in southern California, the Regents announced the selection of a new 383-acre site for the Los Angeles campus located west of Beverly Hills. The land was purchased

the Legislature. Sacramento, California: California State Printing Office.

97. University of California History Digital Archives. 2004b. University of California General History: The Ten Campuses: Riverside, Historical Overview. (April 15, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucr/overview.html)

98. University of California, Riverside. 2010. History and Timeline of UC Riverside. (April 30, 2012, <http://www.ucr.edu/about/history.html> and <http://www.ucr.edu/about/timeline.html>)

99. University of California History Digital Archives. 2004b. University of California General History: The Ten Campuses: Riverside, Historical Overview. (April 15, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucr/overview.html)

100. California Legislature. 1919. Chapter 412. An Act repealing sections one, two, and three of an act entitled "An act to establish a state normal school," approved March 11, 1881, abolishing the branch of the state normal school at Los Angeles, transferring its properties to the regents of the University of California, providing for the establishment of a branch of the University of California at Los Angeles, continuing regular normal school training courses and providing an appropriation for the support and maintenance thereof. Approved May 23, 1919. In effect July 23, 1919. Pages 820-821. *Statutes of California and the Amendments to the Codes passed at the Forty-third session of the Legislature*. Sacramento, California: California State Printing Office.

101. *Ibid.*

for \$1 million from Edwin Janss, Harold Janss, and Alphonzo Bell.¹⁰² In 1928, the Regents decided to move the University's Division of Subtropical Horticulture to southern California, and preparations to establish a College of Agriculture at the Los Angeles campus, which included the planting of a ten-acre agricultural experiment station orchard on the campus grounds, began in 1929.¹⁰³ In 1932, sections of the plant pathology departments of the University's Davis and Riverside farms, the Division of Subtropical Horticulture of the Berkeley College of Agriculture, and sections of Berkeley's Divisions of Entomology and Irrigation and Soils, were transferred to the Los Angeles branch of the University.¹⁰⁴ The College of Agriculture at the Los Angeles campus was officially established in 1939, and the College of Engineering was established in 1945.¹⁰⁵ The College of Agriculture at the University of California's Los Angeles campus was transferred to Riverside beginning in 1960, with the move completed in 1965.¹⁰⁶

Clark Kerr (1911-2003), first Chancellor of the Berkeley campus (1952-1958) and President Emeritus of the University of California (1958-1967), describes the reason for the transfer of the agriculture program from UCLA and Berkeley to Riverside and Davis in his mem-

102. University of California History Digital Archives. 2004a. University of California General History: The Ten Campuses: Los Angeles, Historical Overview. (April 30, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucla/overview.html)

Stadtman, V. A., Centennial Publications Staff, The Regents of the University of California. 1967. *The Centennial Record of the University of California*. "Los Angeles" (pages 331-371). (May 1, 2012, http://content.cdlib.org/view?docId=hb4v19n9zb&chunk.id=div00578&brand=calisphere&doc.view=entire_text). Page 331.

103. Schroeder, C. A. 1992. "Recollections of Avocado History at U.C.L.A.". *California Avocado Society: 1992 Yearbook* 76: 77-83. Dr. C. A. Schroeder is Professor Emeritus of Botany, Department of Biology, University of California, Los Angeles.

104. University of California History Digital Archives. 2004e. University of California General History: The Ten Campuses: Los Angeles, Colleges and Schools. (April 15, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucla/colleges_print.html)

105. Stadtman, V. A., Centennial Publications Staff, The Regents of the University of California. 1967. *The Centennial Record of the University of California*. "Los Angeles" (pages 331-371). (May 1, 2012, http://content.cdlib.org/view?docId=hb4v19n9zb&chunk.id=div00578&brand=calisphere&doc.view=entire_text) page 332.

106. Schroeder, C. A. 1992. "Recollections of Avocado History at U.C.L.A.". *California Avocado Society: 1992 Yearbook* 76: 77-83.

oir, *The Gold and the Blue*.¹⁰⁷ The Faculty and administration of the University's agricultural program, which was "administered on a universitywide basis by a vice-president-agricultural sciences," "agreed to eliminate agriculture at UCLA and concentrate our southern California efforts at Riverside and, in the north, to move programs gradually from Berkeley to Davis. Riverside and Davis had large amounts of land. Los Angeles and Berkeley did not. The two counties where they are located, both once strong centers of agricultural production, were almost totally urbanized—housing tracts, shopping malls, streets, and parking lots."¹⁰⁸

The history of the University's Colleges of Agriculture and the relation of only three UC campuses to the programs administered by ANR raises a question in regard to the UC Santa Cruz campus and the Center for Agroecology & Sustainable Food Systems (CASFS), a research center in the Social Science Division of the Santa Cruz campus. The Center's history reaches back to 1967, when gardener Alan Chadwick led apprenticeships in a gardening practice called French intensive biodynamic at the 2-acre Alan Chadwick Garden located on the UC Santa Cruz campus. In 1972, the University reserved seventeen acres on the campus for an organic campus farm.¹⁰⁹ The UC Santa Cruz Farm, founded in 1974, now includes 25 acres that support orchards, greenhouses, classrooms, offices, a laboratory, hand-dug garden beds, tractor-tilled row crop fields, and research fields. In 1980, UCSC's Environmental Studies Board started the Agroecology Program, based at the Farm. In 1993, the program's name was changed to the Center for

107. Kerr, C. 2001. *The Gold and the Blue: A Personal Memoir of the University of California, 1949-1967*. Berkeley, California: University of California Press. Clark Kerr was also a key member of the team that wrote the *California Master Plan for Higher Education*. Kerr wrote: (page 180) "The Master Plan survey team began its work on June 16, 1959, and completed its report in December 1959. Coons was an excellent chair. Dean McHenry was a superb representative of the university with good judgment and outstanding persuasive skills. He and I had jointly developed in our discussions the idea of a master plan. It was his idea as much as or more than mine. McHenry and I were in constant contact as the plan developed."

108. *Ibid.* Volume One, pages 397-398. Quoted text from page 398.

109. Allen, P., Brown, M. 2006. "Sustainable Agriculture at UC Santa Cruz". *Chronicle of the University of California* No. 8, Fall 2006. From Field to Table: Agriculture and Gastronomy at the University.

Agroecology & Sustainable Food Systems.¹¹⁰ While CASFS appears to meet the requirements of an Agricultural Experiment Station as defined by the Hatch Act of 1887, it is not recognized as such by ANR. A history of CASFS published in 2006 contains the phrases “agricultural land-grant university” in reference to UC as a system, and “non-land-grant” in reference to the UC Santa Cruz campus. The term “non-land-grant” is not defined in the article:

“...in 1985, at a time when the concept was considered heretical within the agricultural establishment ... the University of California held its first conference on sustainable agriculture. The next year, the California State legislature passed the Sustainable Agriculture Research and Education Act of 1986, directing the Regents of the University of California to establish the Sustainable Agriculture Research and Education Program. This systemwide program is complemented by sustainable agriculture programs at individual campuses of the University of California, the nation’s largest agricultural land-grant university. And yet ironically—or perhaps predictably—it was a non-land-grant University of California campus that had the first and most diverse program in sustainable agriculture.”¹¹¹

We traced the site acquisition histories of the three UC campuses that are linked to ANR, and included the Los Angeles campus because it was once part of the University’s agricultural program. The site acquisition histories of the other five general campuses of the UC system provide an interesting perspective in regard to the assumption that some campuses have a “land-grant” status not enjoyed by the others.¹¹² The University’s ten campuses were established on lands that were acquired in various ways, including through donations of private and public lands. However, none of UC’s ten campuses were established on the public lands granted to the state by the federal government under the provisions of the 1862 Morrill Act.¹¹³

110. The Center for Agroecology & Sustainable Food Systems, University of California, S. C., Division of Social Sciences. 2010. “History”. (May 1, 2012, <http://casfs.ucsc.edu/>)

111. Allen, P., Brown, M. 2006. “Sustainable Agriculture at UC Santa Cruz”. *Chronicle of the University of California* No. 8, Fall 2006. From Field to Table: Agriculture and Gastronomy at the University.

112. The University of California, San Francisco, is dedicated exclusively to the health sciences and is not a general campus.

113. Note: In a May 22, 2012 telephone conversation with Mr. Gail Riley, Deputy to the Chief of Staff, Office of the Secretary and Chief of Staff to the Regents (UC Office of the President), we learned that files holding the land acquisition histories for each of the

On June 8, 1943, the Governor of California signed a bill authorizing the University of California to acquire Santa Barbara State College, and the University of California's Santa Barbara campus was established in 1944 at the State College facilities. In 1948, the War Assets Administration gave the University of California a 428-acre site that was part of a World War II U.S. Marine Corps air base located west of the City of Santa Barbara. The campus was relocated to the new site in 1954. In the mid-1960s, the University still used 42 of the original 99 Marine base building that were originally part of the site.¹¹⁴

The history the University's San Diego campus is connected to that of the Scripps Institution of Oceanography. The Marine Biological Association of San Diego, which was founded in 1903, deeded its property to the University in 1912 and became part of the UC System. In 1956, the citizens of San Diego voted to transfer about fifty-nine acres located near the Scripps Institution of Oceanography to the University for a proposed University of California graduate school of science and engineering. In 1958, a local measure to transfer an additional 450 acres of land to the University was passed. In 1960, the Regents accepted the first parcel of land offered by the city of San Diego, approved preliminary construction plans for a new School of Science and Engineering, and asked the city of San Diego to transfer the 450 additional acres to the University. At the same time, the federal government gave the University an adjacent 500-acre site that was part of the Camp Matthews Marine Corps rifle range. Later that year, the Regents named the new campus: University of California, San Diego.¹¹⁵

University's campuses reside in the Office of the Regents. The Regents have an index to these files, but the histories have not been reconstructed in an easily accessible narrative.

114. University of California History Digital Archives. 2004h. University of California History General History. The Ten Campuses. Santa Barbara: Historical Overview. (May 2, 2012, http://sunsite.berkeley.edu/uchistory/general_history/campuses/ucsb/overview.html) Anon. 1948. Berkeley: "Santa Barbara College is Given 428 Acres For Its New Campus". *The Modesto Bee*. Friday, October 8, 1948, p. 2.

115. The following references were consulted:

Raitt, H., Moulton, B. 1967. *Scripps Institution of Oceanography: First Fifty Years*. South Pasadena: The Ward Ritchie Press.

Stadtman, V. A. 1970. *The University of California 1868-1968: A Centennial Publication of the University of California*. New York: McGraw-Hill Book Company.

University of California History Digital Archives. 2004g. University of California History General History. The Ten Campuses. San Diego: Historical Overview. (May 2, 2012, <http://>

The University's Irvine campus was established on 1000 acres of land deeded to the University by the Irvine Company as a gift in 1960. In 1964, the Regents purchased 510 acres of additional Irvine Company land adjacent to the campus site for at a price of \$6,500 per acre.¹¹⁶

In March 1961, the Regents selected the site for the University's Santa Cruz campus, and entered into negotiations with the S. H. Cowell Foundation to purchase a 2000-acre portion of the historic Cowell Ranch. The UC Santa Cruz campus opened in 1965.¹¹⁷

The University completed negotiations with the Virginia Smith Trust to acquire the 7,030-acre Merced campus site in March 2002. An additional 1,240 acres were acquired from John Myers, a local rancher, through a partnership between the University and the Virginia Smith Trust. The Myers' land was acquired to establish a planned campus community near the campus. The two land transactions were made possible by a gift from the Packard Foundation of more than \$12 million, plus a loan of \$3.5 million from the University. Over 5,000 acres of the Merced campus site are designated as a natural resource preserve, to be protected in perpetuity.¹¹⁸

sunsite.berkeley.edu/uchistory/general_history/campuses/ucsd/overview.html)

University of California, San Diego, The Regents of the University of California. 2012. *UCSD History*. (May 2, 2012, <http://blink.ucsd.edu/sponsor/blink/history.html#Notable-dates-from-UCSD's-early>)

116. University of California History Digital Archives. 2004f. University of California History General History. The Ten Campuses. Irvine: Historical Overview. (May 2, 2012, http://sunsite.berkeley.edu/uchistory/general_history/campuses/uci/overview.html)

The University of California Irvine Library, Special Collections and Archives, The Regents of the University of California. 2003. Guide to the Land Agreements Between the University of California and the Irvine Company, 1960-1963. (May 8, 2012, <http://www.oac.cdlib.org/findaid/ark:/13030/kt887006q1>)

117. Jarrell, R. 2008. "The Founding of the UCSC Campus". Pages 26-32 in Haff T. M., Brown M. T., Tyler W. B., eds. *The Natural History of the UC Santa Cruz Campus, Second Edition* [First Edition: *The Natural History of the UC Santa Cruz Campus*, Edited by Sheridan F. Warrick, with a Foreward by Kenneth S. Norris. Publication No. 11. Environmental Field Program, University of California, Santa Cruz, 1982]. Santa Cruz, California: Environmental Studies Department: University of California, Santa Cruz. Printed by Bay Tree Bookstore. p. 26.

University of California History Digital Archives. 2004d. University of California History General History. The Ten Campuses. Santa Cruz: Historical Overview. (May 3, 2012, http://sunsite.berkeley.edu/~ucalhist/general_history/campuses/ucsc/overview.html)

118. University of California, Merced, University News. 2002. UC Merced Campus and Community Sites Acquired. (May 3, 2012, <http://www.ucmerced.edu/news/uc-merced-campus-and-community-sites-acquired>)

These brief land acquisition histories of the Santa Barbara, San Diego, Irvine, Santa Cruz, and Merced campuses of the UC system reveal that some campuses that are not identified as “land-grant” were established on lands that were given as gifts, or deeded to the University of California. In contrast, the Davis and Riverside campuses were established on land that was purchased by the University. The public lands that were granted to the State under the provisions of the 1862 Morrill Act were not a gift: the federal government required specific actions in return for the granted lands. The short phrases “land-grant status” and “land-grant mission” concisely convey the contractual relationship between the state and the federal government that is defined by the terms of the 1862 Act.

The history of the University of California’s College of Agriculture as it evolved at its Berkeley, Los Angeles, Davis, and Riverside branches, along with the land acquisition records for these four campuses, provides evidence that there is no relationship between the actual land granted to the state under the terms of the 1862 Morrill Act and the phrases “land-grant mission,” “land-grant arm,” “land-grant campus,” or “land-grant status” that are associated with specific UC campuses.

The Division of ANR, the USDA, the Hatch Act of 1887, and the Smith-Lever Act of 1914

The federal Hatch Act of 1887 and Smith-Lever Act of 1914 are legislation connected to the 1862 Morrill Act and are dependent on the institutions established under its provisions, but neither of these two Acts granted public lands to the states. Nevertheless, the relation of these two Acts to the 1862 Morrill Act form the basis of ANR’s references to the University’s “land-grant mission.” The provisions of these two acts, both original and as amended, are key to understanding ANR’s administrative and intellectual structures.

The title of the Hatch Act of 1887 that established the Agricultural Experiment Station (AES) announces that Act’s dependence on the institutions established under the provisions of the 1862 Morrill Act:

“An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the

acts supplementary thereto.”¹¹⁹

The Hatch Act of 1887 required an Agricultural Experiment Station that would be under the direction of “the college or colleges or agricultural department of colleges” established under the provisions of the 1862 Morrill Act. The original 1887 text of Section One describes the Act’s purpose:

“...in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established under direction of the college or colleges or agricultural department of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled “An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts,” ... a department to be known and designated as an “agricultural experiment station...”¹²⁰

The purpose of the Agricultural Experiment Station, as defined in Section Two of the original 1887 Act, is confined to conducting research in agricultural subjects:

“...it shall be the object and duty of said experiment station to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable,

119. United States Congress. 1887. Act of March 2, 1887, ch. 314, 24 Stat. 440. An act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto. Chapter 314, pages 440-442. Statutes of the United States of America passed at the First Session of the Forty-ninth Congress.

120. *Ibid.*

having due regard to the varying conditions and needs of the respective States or Territories.”¹²¹

As amended by Congress, the Hatch Act of 1887 now defines the Agricultural Experiment Station as having a scope of responsibility greatly expanded over that defined in the original language of the Act. With the incorporation of the social sciences into what had been originally a program based on the physical and biological sciences, the AES is now responsible for conducting “researches basic to the problems of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer,” as well as the promotion of national prosperity and security:

[7 USC § 361b] “It is further the policy of the Congress to promote the efficient production, marketing, distribution, and utilization of products of the farm as essential to the health and welfare of our peoples and to promote a sound and prosperous agriculture and rural life as indispensable to the maintenance of maximum employment and national prosperity and security. It is also the intent of Congress to assure agriculture a position in research equal to that of industry, which will aid in maintaining an equitable balance between agriculture and other segments of our economy. It shall be the object and duty of the State agricultural experiment stations through the expenditure of the appropriations hereinafter authorized to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States, including researches basic to the problems of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer, as may be deemed advisable, having due regard to the varying conditions and needs of the respective States.”¹²²

The expansion of the AES to include sociological research related to “the development and improvement of the rural home and rural life”

121. Ibid.

122. —. 2010. “Hatch Act of 1887” (Title 7—Agriculture. Chapter 14—Agricultural Experiment Stations. Subchapter I—General Provisions. § 361b. Congressional statement of policy; researches, investigations and experiments). (May 4, 2012, <http://www.gpo.gov/fdsys/pkg/USCODE-2010-title7/pdf/USCODE-2010-title7-chap14.pdf>)

originated in part from the work of the “Country Life Commission” appointed by President Roosevelt in 1908.¹²³ The Commission’s purpose was “not to help the farmer raise better crops, but to call his attention to opportunities for better business and better living on the farm.”¹²⁴

The title of the Smith-Lever Act of 1914 that established Cooperative Extension refers to the Act’s connection to the “agricultural colleges” established under the provisions of the 1862 Morrill Act:

“An Act To provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture.”¹²⁵

Section one of the original Smith-Lever Act of 1914, defines the purpose of the Act and its connection to the colleges that received the endowment benefits of the 1862 Morrill Act:

“...in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State now receiving or which may hereafter receive, the benefits of the Act of Congress approved July second, eighteen hundred and sixty-two, entitled “An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts..., agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture...”¹²⁶

As amended by Congress, the Smith-Lever Act of 1914 (7 USC §§ 341-349) has expanded the Cooperative Extension program to explic-

123. True, A. C. 1929. *A History of Agricultural Education in the United States, 1785-1925*. United States Department of Agriculture, Miscellaneous Publication No. 36. Issued July, 1929. Washington, D.C.: United States Government Printing Office. pp. 254-255.

124. Excerpt from President Roosevelt’s message to Congress on submitting the report of the Commission on Country Life, as quoted in: *ibid.* p. 254.

125. United States Congress. 1914. Act of May 8, 1914, ch. 79, 38 Stat. 372. An Act To provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture. Statutes of the United States of America from March, 1913, to March, 1915.

126. *Ibid.*

itly include “rural energy” and solar energy as it relates to agriculture. It’s also important to note an inconsistency in references to the name of the institutions established under the provisions of the 1862 Morrill Act. Chapter 13 of USC Title 7 identifies the nation’s public research universities as “Agricultural and Mechanical Colleges”; but Section 342 of Chapter 13, which defines the purpose of Cooperative Extension, uses the term “State agricultural college,” without further refinement as to whether the reference is to a college of agriculture situated within the larger intellectual structure of a university, or to an institution of higher education with agriculture as its primary designated purpose:

[7 U.S.C. § 342] “Cooperative agricultural extension work; cooperation with Secretary of Agriculture. Cooperative agricultural extension work shall consist of the development of practical applications of research knowledge and giving of instruction and practical demonstrations of existing or improved practices or technologies in agriculture, uses of solar energy with respect to agriculture, home economics, and rural energy and subjects relating thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this subchapter.”¹²⁷

The original purposes of the Agricultural Experiment Station were expressed in terms of agricultural subjects related to the biological and physical sciences, and the original purposes of Cooperative Extension were limited to the areas of agriculture and rural home economics. With Congressional amendments, the Hatch Act of 1887 and the Smith-Lever Act of 1914 were broadened in scope and now encompass expanded areas of research and responsibility that necessitate a multi-disciplinary approach that reaches beyond the traditional boundaries of the University’s colleges of agriculture.

127. —. 2011. Smith-Lever Act. Agricultural Extension Work Act (Title 7 – Agriculture. Chapter 13 - Agricultural And Mechanical Colleges. Subchapter Iv - Agricultural Extension Work Appropriation. Sec. 341- Cooperative extension work by colleges, Sec. 342 - Cooperative agricultural extension work; cooperation with Secretary of Agriculture). (May 4, 2012, <http://www.gpo.gov/fdsys/pkg/USCODE-2011-title7/pdf/USCODE-2011-title7-chap13-subchaplV.pdf>)

The Agricultural Experiment Station and Cooperative Extension programs established under these two federal Acts and administered by UC's Division of ANR are linked to the National Institute of Food and Agriculture (NIFA), an agency within the U.S. Department of Agriculture (USDA) and part of the federal government's executive branch.¹²⁸ NIFA's broad mission is "to advance knowledge for agriculture, the environment, human health and well-being, and communities by supporting research, education, and extension programs in the Land-Grant University System and other partner organizations."¹²⁹ NIFA provides funding for the following broad research areas: agricultural systems; animals; plants; pest management; biotechnology and genomics (including bioinformatics, biotechnology, and microbial genomics); economics and community development; families, youth, and communities; education; food, nutrition, and health; natural resources and environment; and technology and engineering.¹³⁰

Agricultural systems research reaches into the social science discipline areas of marketing, labor supply, and finances. Rural economics and community development research is also within the sphere of the social sciences. Human nutrition research, which requires participation from the social sciences, public health, and human health sciences, looks at dietary choices, foodborne illnesses, and threats to the food supply. Agricultural equipment development is dependent on engineering disciplines. Programs in agricultural engineering now include biological engineering, chemical and electrical engineering, software engineering, information technology, civil engineering, nanotechnology, and sensor technology. Plant and animal research programs incorporate biotechnology and genomics and rely on instrumentation developed by biomedical engineers. Plant and horticultural research advances knowledge in biological sources of fuel, energy,

128. United States Department of Agriculture, National Institute of Food and Agriculture (NIFA). 2012a. "NIFA Overview". (April 24, 2012, <http://www.csrees.usda.gov/about/background.html> and <http://www.csrees.usda.gov/newsroom/pdfs/factsheet.pdf>) "Congress created NIFA through the Food, Conservation, and Energy Act of 2008. NIFA replaced the former Cooperative State Research, Education, and Extension Service (CSREES), which had been in existence since 1994."

129. Ibid.

130. Ibid.

chemicals, pharmaceuticals, and construction materials. Other agricultural research programs address air, soil, and water quality; global climate change; and fish, wildlife, and ecosystem management. These natural resource, or environmental science research areas are multidisciplinary and reach beyond the traditional concept of a college of agriculture. Moreover, natural resource and environmental research concerns are not confined to agricultural topics and rural populations, but are crucial to all aspects of human society.

The *Strategic Vision 2025* document prepared by UC's Division of ANR reflects the broad research areas identified and funded by NIFA. The multidisciplinary research areas identified by ANR as being necessary to meet 21st century challenges include the following:

- Water quality, quantity, and security
- Competitive, sustainable food systems
- Sustainable natural ecosystems
- Improving the health of Californians and healthy families and communities
- Safe and secure food supplies
- Management of endemic and invasive pests and diseases
- Improvement of energy security and green technologies through innovative science linking engineering, agricultural, biological, and environmental sciences ¹³¹

Related ANR research areas include air quality, climate change, land use policy, transportation, computer science, and issues related to human population growth. ¹³²

The broad areas of research identified by both NIFA and ANR demand the engagement of the public research university's full range of knowledge resources. But, the administrative and intellectual structure of UC's Division of ANR formally includes only four colleges located on three of the University's ten campuses.

In summary, none of UC's campuses were established on the lands granted to the State of California under the provisions of the 1862

131. University of California, Division of Agriculture and Natural Resources. 2009. *Strategic Vision 2025*. (April 15, 2012, <http://ucanr.edu/files/906.pdf>) Pages 14 – 26.

132. Ibid.

Morrill Act. When used to identify the public research university, the phrase “land-grant” can be understood as an encapsulation of the 1862 Morrill Act’s essential provisions, but this simple expression can be misleading. It defines the University in terms of the land granted to the state to establish an endowment, but by itself does not define the University’s purpose, intellectual direction, or goals.

In this book we have identified the institutions established under the terms of the 1862 Morrill Act by the phrase “public research university.” This designation identifies the institution’s public administrative control and research function, thereby differentiating it from other types of post-secondary educational institutions. In addition, by not limiting the institution to specific disciplinary research programs, the designation admits the broad range of multi-disciplinary research programs that constitute the intellectual direction and structure of today’s public research universities.

As an institution established under the provisions of the 1862 Morrill Act, the University of California’s “leading object” is to teach “branches of learning” “related to agriculture and the mechanic arts.”¹³³ The other sciences and the classical studies are not to be excluded from the curriculum. The “other scientific studies” required by the Act, and the branches of learning that are related to agriculture and the mechanic arts, include the physical and biological sciences and the social sciences. The classical studies include the communication arts—writing, speaking, and languages—integral to all academic disciplines. The broad range of academic disciplines required by the 1862 Morrill Act remains vital to meeting regional, state, and national challenges in the present era.

The 1862 Morrill Act provided intellectual direction to the institutions established under its provisions, but the administrative structure of the university, and the intellectual structure of academic divisions, colleges, departments, and programs, was determined by the states.

133. United States Congress. 1862. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009, <http://www.csrees.usda.gov/about/offices/legis/morrill.html>). Section 2. The uses and purposes to which the endowment is to be applied are defined in Sections 4 and 5 of the Act.

The intention to establish a discrete “College of Agriculture” at the UC Berkeley campus is found in the Organic Act of 1868, not the 1862 Morrill Act.¹³⁴

The research areas outlined by NIFA and ANR—based the Hatch Act of 1887 (as amended) that established the Agricultural Experiment Station, and the Smith-Lever Act of 1914 (as amended) that established Cooperative Extension—reach beyond the boundaries of the traditional college of agriculture and are increasingly dependent upon the vast knowledge resources of the larger university. For these reasons, the “land-grant mission” of the University, understood as an expression that reflects the full intellectual intent of the 1862 Morrill Act and its application to the broad range of present regional, state, and national needs, extends to all campuses and research units of the UC system. The University operates as an integrated system to meet the broad intellectual direction requirements of the 1862 Morrill Act and to create knowledge crucial to meeting society’s challenges.

THE INTELLECTUAL STRUCTURE OF THE UNIVERSITY OF CALIFORNIA

In 1871, in its third year of operation, the University of California’s curriculum was in conformance with the “leading object” requirements of the Morrill Act of 1862. The University’s intellectual structure consisted of a Colleges of Arts, a College of Letters, and Professional Colleges. The Colleges of Arts included the following divisions: a State College of Agriculture; a State College of Mechanic Arts; a State College of Mines; a State College of Civil Engineering; and a State College of Letters. Each of the colleges conferred a degree upon examination after satisfactory completion of the course of studies (see Tables 9.4 and 9.5).

134. State of California. 1868c. An Act to Create and Organize the University of California (The Organic Act of 1868). Source: Statutes of California, Seventeenth Session. 1867-1868, Chapter 244, §§ 1-26. (March 10, 2011, University of California: Calisphere. <http://content.cdlib.org/view?docId=hb6w100756&brand=calisphere>) Section 4.

Table 9.4 (part 1/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
Fourth Class – First Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
First Term	Modern Languages (French, German, Spanish, or Italian) Elocution and English Composition History Algebra (reviewed from beginning) Drawing
Second Term	Modern Languages (French, German, Spanish, or Italian) Rhetoric and English Composition Elocution and Private Declamation History Algebra (completed) Geometry Physiology and Hygiene Drawing
Third Term	Modern Languages (French, German, Spanish, or Italian) Rhetoric and English Composition Private Declamation History Natural History Geometry, Trigonometry, and Mensuration Physiology and Hygiene Drawing

Table 9.4 (part 2/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
Third Class – Second Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
First Term	Modern Languages (French, German, Spanish, or Italian) Rhetoric Public and Private Declamation Surveying Navigation Physics (Heat) Chemistry Botany Drawing
Second Term	Modern Languages (French, German, Spanish, or Italian) Public and Private Declamation Analytical Geometry Physics (Heat) Chemistry Botany Drawing
Third Term	Modern Languages (French, German, Spanish, or Italian) Public and Private Declamation Descriptive Geometry Shades, Shadows, and Linear Perspective Mechanics Chemistry Zoology Laboratory Drawing

Table 9.4 (part 3/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
Second Class – Third Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
First Term	<p>The College of Agriculture:</p> <p>Mental Philosophy *</p> <p>Modern Languages (French, German, Spanish, or Italian)*</p> <p>Mechanics</p> <p>Differential Calculus (optional)</p> <p>Chemistry (Agricultural)</p> <p>Mineralogy</p> <p>Zoology *</p> <p>Horticulture</p> <p>Laboratory (Analytical Chemistry)</p> <p>Drawing</p> <p>The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Mechanics of Machinery, Calculus, and Mechanical Drawing</p> <p>The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Laboratory Practice, Mining, and Topographical Surveying.</p> <p>The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Laboratory, Higher Surveying, and Chart Drawing.</p>

Table 9.4 (part 4/8)

**University of California, 1871-72 Course of Instruction:
Colleges of Agriculture, Mechanic Arts,
Mines, and Civil Engineering (1)**

Second Class – Third Year:**Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering****Second Term****The College of Agriculture:**

Mental Philosophy *
 Modern Languages (French, German, Spanish, or Italian) *
 Belles Lettres *
 Mechanics (Liquids and Gases) *
 Differential Calculus (optional)
 Integral Calculus (optional)
 Chemistry (Agricultural)
 Zoology *
 Horticulture
 Laboratory (Analytical Chemistry)
 Drawing

The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Calculus, Metallurgy, and Mechanical Drawing.

The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Mineralogy, Laboratory Practice, Mining, Topographical Surveying, and Analytical Chemistry.

The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Mineralogy, Laboratory, and Topographical Surveying.

Table 9.4 (part 5/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
Second Class – Third Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
Third Term	<p>The College of Agriculture:</p> <p>Modern Languages (French, German, Spanish, or Italian) * Belles Lettres * Physics (Electricity, Magnetism) * Integral Calculus and Calculus of Variations (optional) Geology * Agriculture Laboratory Practice Drawing</p> <p>The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Calculus, and Mechanical Drawing.</p> <p>The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Laboratory Practice, and Analytical Chemistry.</p> <p>The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Laboratory, and Topographical Drawing.</p>

Table 9.4 (part 6/8)

**University of California, 1871-72 Course of Instruction:
Colleges of Agriculture, Mechanic Arts,
Mines, and Civil Engineering (1)**

First Class – Fourth Year:**Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering**

First Term	<p>The College of Agriculture:</p> <p>Moral Philosophy * Physics (Acoustics and Optics) * Geology * Agriculture Veterinary Science Rural Economy Laboratory Practice</p> <p>The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Applied Mechanics, Civil Engineering, Astronomy, and Architectural Drawing.</p> <p>The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Assaying, and Mining Engineering.</p> <p>The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Geodetic Surveying, and Architectural and Mechanical Drawing.</p>
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Table 9.4 (part 7/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
First Class – Fourth Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
Second Term	<p>The College of Agriculture:</p> <p>Moral Philosophy *</p> <p>Political Economy *</p> <p>Physics (Optics) *</p> <p>Geology *</p> <p>Diseases of Animals and Plants</p> <p>Laboratory Practice</p> <p>The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Applied Mechanics, Civil Engineering, Astronomy, and Thermodynamics.</p> <p>The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Assaying, and Mining Engineering.</p> <p>The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Principles of Construction, and Mechanical Drawing.</p>

Table 9.4 (Part 8/8) University of California, 1871-72 Course of Instruction: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering (1)	
First Class – Fourth Year: Colleges of Agriculture, Mechanic Arts, Mines, and Civil Engineering	
Third Term	<p>The College of Agriculture:</p> <p>Political Economy * International Law (Lectures) * Natural Theology * Meteorology * Forestry Laboratory Practice</p> <p>The College of Mechanic Arts included College of Agriculture courses marked with an * and added the following: Astronomy.</p> <p>The College of Mines courses were the same as those of the College of Mechanic Arts with the addition of Assaying, and Mining Engineering.</p> <p>The College of Civil Engineering courses were the same as those of the College of Mechanic Arts, with the addition of Civil Engineering, Mechanics of Engineering, and Structural Drawing.</p>
<p>Source for Table 9.4, Parts 1 – 8:</p> <p>(1). University of California. 1871. <i>Register of the University of California, 1871</i>. Oakland, California. Pp. 39-49.</p>	

Table 9.5 (Part 1/4) University of California, 1871-72 Course of Instruction: College of Letters (1)	
Fourth Class – First Year: College of Letters	
First Term	Latin: Livy, Latin Composition Greek: Homer – Odyssey Modern Languages (French, German, Spanish, or Italian) Elocution and English Composition History Algebra (reviewed from beginning) Drawing (optional)
Second Term	Latin: Livy, Latin Composition Greek: Homer – Odyssey Modern Languages (French, German, Spanish, or Italian) Rhetoric and English Composition Elocution and Private Declamation History Natural History Algebra (completed) Geometry Physiology and Hygiene Drawing (optional)
Third Term	Latin: Horace – Odes Greek: Xenophon’s Memorabilia, and Greek Composition Modern Languages (French, German, Spanish, or Italian) Rhetoric, English Composition, and Declamation History Geometry, Trigonometry, and Mensuration Physiology and Hygiene Drawing (optional)

Table 9.5 (Part 2/4)	
University of California, 1871-72 Course of Instruction: College of Letters (1)	
Third Class – Second Year: College of Letters	
First Term	Latin: Horace – Ars Poetica Greek: Herodotus, Greek Composition Modern Languages (French, German, Spanish, or Italian) Rhetoric, Public and Private Declamation Surveying Navigation Physics (Heat) Chemistry Natural History Botany Drawing and Laboratory (optional)
Second Term	Latin: Cicero – Cato Maior de Senectute. Latin Composition Greek: Herodotus Modern Languages (French, German, Spanish, or Italian) Public and Private Declamation Analytical Geometry Physics Chemistry Botany Drawing and Laboratory (optional)
Third Term	Latin: Juvenal Greek: Aeschylus – Prometheus Bound Modern Languages (French, German, Spanish, or Italian) Public and Private Declamation Descriptive Geometry (optional) Shades, Shadows, and Linear Perspective (optional) Mechanics Chemistry Zoology Drawing and Laboratory (optional)

Table 9.5 (Part 3/4) University of California, 1871-72 Course of Instruction: College of Letters (1)	
Second Class – Third Year: College of Letters	
First Term	Latin: Cicero, in Kellogg’s “Ars Oratoria” Greek: Plato – Gorgias Modern Languages (French, German, Spanish, or Italian) Public Declamation Logic Mental Philosophy Mechanics Zoology Mineralogy Optional Studies: Drawing, Calculus
Second Term	Latin: Quintilian, in Kellogg’s “Ars Oratoria” Greek: Plato – Gorgias Modern Languages (French, German, Spanish, or Italian) Public Declamation Belles Lettres Mental Philosophy Mechanics (Liquids and Gases) Zoology Optional Studies: Drawing, Laboratory, etc.
Third Term	Latin: Tacitus Greek: Demosthenes’ On the Crown Modern Languages (French, German, Spanish, or Italian) Public Declamation Belles Lettres Physics (Electricity, Magnetism) Geology Optional Studies: Drawing, Laboratory, etc.

Table 9.5 (Part 4/4) University of California, 1871-72 Course of Instruction: College of Letters (1)	
First Class – Fourth Year: College of Letters	
First Term	Latin (Optional): Tacitus, or Cicero's speech, Pro Cluentio Belles Lettres Public Declamation Moral Philosophy Physics (Acoustics and Optics) Geology Astronomy Optional Studies: Laboratory, etc.
Second Term	Greek (Optional): Orations of Demosthenes, or Aristophanes Public Declamation Moral Philosophy Political Economy Physics (Optics) Geology Astronomy History of Civilization (Lectures)
Third Term	Public Declamation Political Economy International Law (Lectures) History of Civilization (Lectures) Meteorology Astronomy Natural Theology
Source for Table 9.5, Parts 1-4: (1). University of California. 1871. <i>Register of the University of California, 1871.</i> Oakland, California. Pp. 50-54.	

The 1874-75 University of California Register lists seven Colleges: Letters, Agriculture, Mechanics, Mining, Engineering, Chemistry, and Medicine. By 1879-80, the University had added a College of Law. In 1920, the administrative and intellectual structures of the University of California were centralized at the Berkeley campus, with University branches located in other regions of the state:¹³⁵

1. Mount Hamilton: the Lick Observatory at Mount Hamilton (including a branch of the Lick Observatory located in Santiago, Chile).
2. San Francisco: the California School of Fine Arts; Hastings College of the Law; Medical School (third, fourth, and fifth years, and hospitals); the George Williams Hooper Foundation for Medical Research; College of Dentistry; California College of Pharmacy; and the Museum of Anthropology, Archaeology, and Art.
3. Los Angeles: the Los Angeles Medical Department (graduate instruction only); and the Southern Branch of the University of California.
4. Davis: the University Farm School (instruction and research in Agronomy, Animal Husbandry, Dairy Industry, Farm Mechanics, Olericulture, Poultry Husbandry, Pomology, Soils, and Veterinary Science).
5. Riverside: the Graduate School of Tropical Agriculture
6. La Jolla: the Scripps Institution for Biological Research
7. Swanton: the Summer School of Surveying¹³⁶

The intellectual structure of the University's Berkeley campus in 1920 was comprised of the Colleges of Letters and Science, Commerce, Agriculture, Mechanics, Mining, Civil Engineering, and Chemistry, and

135. University of California. 1921. *University of California, Register 1920-21, Volume 1*. Berkeley, California: University of California Press. pp. 9-10.

136. The University of California's Summer School of Surveying (SSS), part of the Civil Engineering program prior to World War II, was conducted at Swanton, on Scott Creek between Davenport and Santa Cruz, from May 1909 to June 1924. In 1925, the Surveying Camp was moved to Marin County on land owned by the Marin County Water District.

See: University of California (System) Academic Senate. 1985. 1985, *University of California: In Memoriam*. Francis Seeley Foote, Civil Engineering: Berkeley. Pages 147-148. (April 18, 2012, http://texts.cdlib.org/view?docId=hb4d5nb20m&chunk.id=div00056&brand=calisphere&doc.view=entire_text)

Also: Swanton Pacific Railroad Society. 2002. "The Cal Barn - Part 7 (conclusion)". *Swanton Pacific Railroad Society*, Number 112. Cal Poly. September 2002. (April 18, 2012, <http://sprr.calpoly.edu/NewsletterArchives/2002/SPRR%20Newsletter.09.pdf>)

the Schools of Architecture, Education, Jurisprudence, and Medicine (first and second years).¹³⁷ At that time, the departments of instruction in the Colleges and Schools at Berkeley included the following:

“Agriculture (including agricultural science); Agronomy; Animal Industries; Forestry; Horticulture (and Landscape Gardening); Anatomy; Anthropology; Architecture; Astronomy; Bacteriology and Experimental Pathology; Biochemistry and Pharmacology; Botany; Celtic; Chemistry; Civil Engineering; Drawing and Art; Economics; Education; English; French; Geography; Geological Sciences (including Geology, Mineralogy, and Paleontology); German; Greek; History; Household Art and Household Science; Hygiene; Irrigation; Italian; Jurisprudence; Latin; Library Practice; Mathematics; Mechanical and Electrical Engineering; Military Science and Tactics; Mining and Metallurgy; Music; Oriental Languages; Philosophy and Psychology; Physical Education; Physics; Physiology; Political Science; Public Speaking; Sanskrit; Semitic Languages; Slavic Languages; Spanish; and Zoology.”¹³⁸

In 2012, the University of California’s intellectual structure, distributed among its ten campuses, retains many of its nineteenth- and early twentieth-century elements; however, the “leading object” requirement of the Morrill Act, which was self-evident in the University’s nineteenth-century intellectual structure, is no longer easily perceivable. The twenty-first century Berkeley campus has 14 Colleges and Schools, subdivided into departments. The College departments are further divided into programs. UC Berkeley offers approximately 350 Degree Programs.¹³⁹ Table 9.6 provides an abbreviated outline of the intellectual structure of the Berkeley campus of the University of California.

137. University of California. 1921. *University of California, Register 1920-21, Volume 1*. Berkeley, California: University of California Press. pp. 9-10.

138. *ibid.* pp. 9-10.

139. University of California, Berkeley, Regents of the University of California. 2012. *Colleges and Schools*. (January 6, 2012, <http://www.berkeley.edu/academics/school.shtml>).

University of California, Berkeley, The Regents of the University of California. 2012. *Academic Departments and Programs*. (January 6, 2012, <http://www.berkeley.edu/academics/dept/a.shtml>).

Table 9.6 (Part 1/4)

**The University of California, Berkeley
Colleges and Schools, 2012 (1)**

College of Letters and Science

Department subdivisions and other information:

This college includes more than 60 departments and research centers in the biological sciences, arts and humanities, physical sciences, and social sciences. These departments, listed alphabetically, include the following:

African American Studies; African Diaspora Studies; American Literature; American Studies; Ancient Near Eastern Civilizations; Ancient History and Mediterranean Archaeology; Ancient Near Eastern Archaeology and Art History; Ancient Philosophy; Anthropology; Applied Mathematics; Arabic; Art History; Art Practice; Asian American Studies; Asian Studies; Astronomy; Astrophysics; Biochemistry and Molecular Biology; Biology; Biostatistics; Buddhist Studies; Cell and Developmental Biology; Celtic Studies; Chicano Studies; Chinese Studies; Chinese; Classics; Classical Archaeology; Classical Civilizations; Classical Languages; Cognitive Science; Comparative Literature; Creative Writing; Dance; Demography; Development Studies; Dramatic Art; Dutch Studies; Earth and Planetary Science; East Asian Languages and Cultures; Economics; English; Environmental Sciences; Ethnic Studies; Ethnomusicology; Film Studies; Folklore; French Civilization; French Language Studies; French Literature; Gender and Women's Studies; Genetics; Geography; Geology; Geophysics; German; German Linguistics; German Literature and Culture; Greek; Hebrew; Hispanic Languages and Bilingual Issues; History; History of Art; History of Science and Technology; Humanities; Iberian; Immunology; Integrative Biology; Italian Studies; Japanese Studies; Japanese; Jewish Studies (Joint Program with the Graduate Theological Union); Korean; Latin; Latin American Spanish; Latin American Studies; Lesbian, Gay, Bisexual, Transgender Studies; Linguistics; Literature in English; Logic and Methodology; Luso-Brazilian Language and Literature; Mass Communications; Mathematical & Physical Sciences; Mathematics; Medical Anthropology; Medieval Studies; Middle Eastern Studies; Molecular & Cell Biology; Music; Music History and Literature; Native American Studies; Near Eastern Religions (Joint Program with the Graduate Theological Union); Near Eastern Studies; Neurobiology; Peace & Conflict Studies; Performance Studies; Persian; Philosophy; Physical Education Program; Physics; Political Economy of Industrial Societies; Political Science; Psychology; Religious Studies; Rhetoric; Romance Languages and Literatures; Russian Language; Russian Literature; Scandinavian; Slavic Languages and Literatures; Social Sciences; Sociology; South Asia; South & Southeast Asian Studies; Southeast Asian Studies; Spanish & Portuguese; Spanish and Spanish American; Statistics; Theater; Dance, and Performance Studies; Turkish; Women; Gender and Sexuality.

Note: In 2012, the 1862 Morrill Act's requirement to include military tactics is reflected in the following UC Berkeley departments: Air Force ROTC (Reserve Officer Training Corps); Army ROTC; Naval Science (Navy ROTC); Military Affairs Program; Military Science. (2)

Table 9.6 (Part 2/4)	
The University of California, Berkeley Colleges and Schools, 2012 (1)	
Colleges	Department subdivisions and other information
Haas School of Business	Founded in 1898, Haas School of Business is the oldest business school at a public institution in the United States.
College of Chemistry	The College of Chemistry includes the departments of Chemistry and Chemical & Biomolecular Engineering. The University of California has offered courses in Chemistry since its founding in 1868. The College of Chemistry was created as a unit within the University in 1872. (13)
Graduate School of Education	The Graduate School of Education offers credentials for working in California public schools and advanced degrees in education. In 1889, The UC Regents announced, "the intention...to establish a course of instruction in the science and art of teaching." In 1892, the first Professor of the Science and Art of Teaching was appointed, the Department of Pedagogy was established, and the B.A. degree in education was offered through the College of Letters and Science.
College of Engineering	The College of Engineering includes the following departments: Bioengineering; Civil & Environmental Engineering; Electrical Engineering & Computer Sciences; Industrial Engineering & Operations Research; Materials Science & Engineering; Mechanical Engineering; and Nuclear Engineering. "The College of Engineering has been an integral part of the University of California since it was chartered on March 23, 1868. The Colleges of Mechanics and Civil Engineering merged in 1931 to form the College of Engineering, into which mining was incorporated in 1942." (12)
College of Environmental Design	Includes departments of Architecture; Landscape Architecture; and City and Regional Planning. The College of Environmental Design was established in 1959. Instruction in architecture was inaugurated in 1894, landscape architecture instruction dates from 1913, and the city planning program began in 1948. (11)
School of Information	1918 – UC Berkeley establishes a department of library science. 1926 – The department of library science becomes the graduate School of Librarianship. 1976 – The School of Librarianship is renamed the School of Library and Information Studies. 1994 – The university establishes the School of Information Management and Systems (SIMS) on the foundation of the previous School of Library and Information Studies. 2006 – The School of Information Management and Systems is renamed the School of Information. (3)

Table 9.6 (Part 3/4) The University of California, Berkeley Colleges and Schools, 2012 (1)	
Colleges	Department subdivisions and other information
Graduate School of Journalism	School of Journalism: “formal instruction began at Berkeley in 1936, through the English Department, and an undergraduate major was established in 1940. A Master’s program was initiated in 1952 and a graduate professional school of journalism in 1968.” (4)
School of Law	On August 17, 1894, the University established a separate Department of Jurisprudence with a curriculum of seven courses. By 1901 the Department included two professors, two instructors, and three lecturers. (10)
College of Natural Resources	<p>“Includes departments of Agricultural and Resource Economics; Environmental Science, Policy, and Management; Nutritional Science; and Plant and Microbial Biology. The College of Natural Resources (CNR) addresses biological, social, and economic challenges associated with protecting natural resources and the environment.” (5)</p> <p>In 1914, the College of Agriculture established a forestry program that included the study of forests and wild lands, including their multiple resources, services, and recreational opportunities. In 1946, this forestry program became the School of Forestry. “As natural resource and environmental issues expanded beyond traditional farming and forestry, the College’s mission also expanded. In 1974, the University’s former agricultural and forestry schools joined to form the College of Natural Resources.” (6)</p>
School of Optometry	Curriculum in Optometry was approved July 12, 1923. Instruction began on August 17, 1923. (7)
School of Public Health	In 1943, the California Legislature enacted a law, signed by Governor Earl Warren, establishing the School of Public Health at the University of California. In 1946, the American Public Health Association accredited the School of Public Health at UC Berkeley, making it the only accredited school of public health west of the Mississippi. (8)
Richard and Rhoda Goldman School of Public Policy	The Goldman School of Public Policy was founded at the University of California, Berkeley in 1969.
School of Social Welfare	The School of Social Welfare at UC Berkeley grew out of an undergraduate Curriculum in Social Services in the 1930’s. It became a professional School in 1944. (9)

Table 9.6 (Part 4/4)**The University of California, Berkeley Colleges
and Schools, 2012 (1)****Sources for Table 9.6, Parts 1-3:**

- (1) University of California, Berkeley. Colleges and Schools.
<http://www.berkeley.edu/academics/school.shtml> (Accessed: Jan. 6, 2012)
- (2) University of California, Berkeley. College of Letters and Science Departments.
<http://ls.berkeley.edu/l-s-departments> (Accessed: January 6, 2012)
- (3) University of California, Berkeley, School of Information.
<http://www.ischool.berkeley.edu/about/history>. (Accessed: Jan. 6, 2012)
- (4) University of California, Berkeley. School of Journalism.
<http://journalism.berkeley.edu/admissions/>.
<http://journalism.berkeley.edu/resources/history/> (Accessed: January 6, 2012)
- (5) University of California, Berkeley. College of Natural Resources.
http://cnr.berkeley.edu/site/about_us.php. (Accessed: Jan. 6, 2012)
- (6) University of California, Berkeley. College of Natural Resources.
http://cnr.berkeley.edu/site/history_mission.php. (Accessed: Jan. 6, 2012)
- (7) University of California, Berkeley. School of Optometry. History.
<http://optometry.berkeley.edu/>. (Accessed: Jan. 6, 2012)
- (8) University of California, Berkeley. School of Public Health.
<http://sph.berkeley.edu/friends/timeline.php>. (Accessed: Jan. 6, 2012)
- (9) University of California, Berkeley. School of Social Welfare.
<http://socialwelfare.berkeley.edu/About/History.shtml>. (Accessed: January 6, 2012)
- (10) University of California, Berkeley. Berkeley Law.
<http://www.law.berkeley.edu/index.html>. (Accessed: January 6, 2012)
- (11) University of California, Berkeley. College of Environmental Design.
<http://www.ced.berkeley.edu/college/about/history>. (Accessed: January 8, 2012)
- (12) University of California, Berkeley. College of Engineering.
<http://coe.berkeley.edu/about/history-and-traditions>. (Accessed: January 8, 2012)
- (13) University of California, Berkeley. College of Chemistry.
<http://chemistry.berkeley.edu/about/history.php>. (Accessed: Jan. 8, 2012)

THE INTELLECTUAL STRUCTURE OF THE UNIVERSITY OF CALIFORNIA: THE UNIVERSITY LIBRARY

The Library of the University of California supports the University's research and teaching functions. It was established in with the collection inherited from the College of California, and augmented with private gifts. In 1871, the University's librarian was also Professor of the English Language and Literature, Rhetoric, Logic, and History. In 1879, the University had two libraries: the University Library was housed in South Hall, and the circulating library for students was located in North Hall.¹⁴⁰

In 1997, the University took the first steps to create the California Digital Library (CDL).¹⁴¹ Announcing the establishment of the CDL, University of California President Richard C. Atkinson said, "Today we announce the creation of UC's library without walls. Instead of seeking out information in place-bound libraries, limited by what is only available on the bookshelves, the California Digital Library will allow scholars of all ages and interests to range worldwide in their quest for knowledge, using the Internet, the World Wide Web and a computer."¹⁴² In 1999, the Library provided online access to full text journals.¹⁴³

In the twenty-first century, "The Library" at UC Berkeley consists of Doe Library, Moffitt Library, Bancroft Library, and 24 specialty libraries that serve academic disciplines in the humanities, sciences, and social sciences. Doe Library holds humanities and social sciences materials, and Moffitt Library is a core collection designed for undergraduate students. The Bancroft Library is one of the largest libraries of rare

140. University of California. 1871. Register of the University of California, 1871. Oakland, California. Page 6.

University of California, The Regents of the University of California. 1879. Register of the University of California, 1879-80: Literary and Scientific Departments. Berkeley, California. pp. 27-28.

141. University of California Office of the President. 1997. University of California Budget for Current Operations, 1998-99 (October 1997). (February 27, 2012, <http://budget.ucop.edu/rbudget/199899/1998-99budgetforcurrentoperations.pdf>) pp. 99-102.

142. University of California, UC Newsroom. 1997. "UC Announces Founding of the California Digital Library". (March 17, 2012, <http://www.universityofcalifornia.edu/news/article/20579>).

143. University of California: California Digital Library. 2012. About CDL. (March 16, 2012, <http://www.cdlib.org/about/>).

books, manuscripts in the United States. Its special collections include the Bancroft Collection of Western Americana and Latin Americana, the Rare Book Collection, the History of Science and Technology Collection, the University Archives, the Mark Twain Papers and Project, and the Regional Oral History Office. There are eleven additional Affiliated Libraries on the Berkeley campus that contain specialized research collections and are associated with organized research units, academic departments, and professional schools.¹⁴⁴ Today's University of California Library system, administered by the University of California's Council of University Librarians, includes more than 100 libraries on ten campuses. It is the largest academic research library in the world.¹⁴⁵

A SUMMARY OF CHAPTER NINE, PARTS ONE AND TWO

There are significant differences between the administrative structures of the University of California and the two other institutions analyzed in this book, Dartmouth College and the University of Virginia. As an autonomous branch of the State's government, UC bears a similarity to the proposed National University that we looked at in Chapter Eight, which, had it been established, would have been a branch, or agency of the federal government. The administrative structure of the short-lived Dartmouth University was linked to the New Hampshire state government, but Dartmouth College is privately-controlled and not a branch of the New Hampshire state government. In contrast to the University of California's autonomous governance and constitutional legal status, the University of Virginia is a public institution under the control of the state's legislature. The terms of the state statute under which it was established are part of the Virginia Code, but not the Virginia Constitution.

The University of California's multiple governing documents also set it apart from Dartmouth College and the University of Virginia, both of which are controlled by the terms of just one core governing docu-

144. The Regents of the University of California. 2008. *Description of the UC Berkeley Libraries*. (February 3, 2012, <http://www.lib.berkeley.edu/AboutLibrary/description.html>)

145. —. 2012. "The University of California Libraries". (January 24, 2012, <http://libraries.universityofcalifornia.edu/>)

ment. Dartmouth's Charter defines all of the College's administrative controls, states the purpose of the College, and provides intellectual direction. The Court relied on the terms of the College's Charter in its decision on *Trustees of Dartmouth College v. Woodward*. The state statute that established the University of Virginia defined the University's administrative structure and was a source of intellectual direction. The federal Morrill Act of 1862, itself an aspect of the administrative structure of each of the public research universities established under its terms, provided intellectual direction linked to funding; however, the discrete governance structure of each of the universities established under its terms was, under the provisions of the 1862 Act, to be determined by their respective states. The state statute that established the University of California, the Organic Act of 1868, reflects the intellectual direction requirements expressed in the Morrill Act of 1862, acknowledges the endowment established under the provisions of the 1862 Act, and sets out the governance structure of the University, including the role of The Regents of the University of California. Beginning with the amendments of 1918, Article IX, Section 9 of the California Constitution includes The Regents of the University of California and defined the Regents' role in the University's governance. Specific parts of the report titled *A Master Plan for Higher Education in California*, codified by the *Donahoe Higher Education Act* (1960) and part of the California Education Code, define the University of California as the "primary state-supported academic agency for research" and the "sole authority in public higher education to award the doctoral degree in all fields of learning."¹⁴⁶ The 1862 Morrill Act, the University's controlling governing document, remains a vital source of intellectual direction to the public research university; however, its curricular requirements are no longer evident in current University of California governance and policy documents.

The California State Legislature has the power to ensure the University's compliance with the terms of its founding federal statute, but

146. State of California. 2011. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011, <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) 66010.4. (c)

has instead facilitated the University's loss of intellectual direction and contributed to an expansion of the University's intellectual and administrative structures beyond what is defined by the terms of its multiple governing documents.

In 1864, the State of California accepted the benefits of the 1862 Morrill Act, which provided an endowment to support the operations of a public research university. Historically, the Legislature has provided unrestricted funding to supplement the Morrill Act endowment and enable the University to meet its statutory goals, but over the past decades this funding has been reduced when measured on a per-student basis and in some cases in absolute terms as well (see Table 10.1). In response to the Legislature's continuing reduction of unrestricted public funding, the University is compelled to seek funding from other sources, but most private gifts are restricted to the donor's purposes. Revenues from student tuition support the University's instructional programs, the University Library, and the operation and maintenance of the University's physical structure. Tuition revenues do not support research programs. However, instructional programs that fulfill the intent of the 1862 Act's "leading object" requirements are dependent on new knowledge generated by research. So, as unrestricted public funding is replaced with private restricted funding, the University loses control over the intellectual direction required by its controlling federal statute, the 1862 Morrill Act.¹⁴⁷ The California Constitution gives the Legislature authority over the Regents to ensure University compliance with the terms of its endowments. But the Legislature, through its continuing reductions in unrestricted funding to the University, facilitates the loss of the University's intellectual direction as it is defined by the terms of the 1862 Act. Moreover, through their joint agreement to require the University to fund, develop, and offer elementary and secondary level educational outreach programs, the State's Governor, Legislature, and the Regents have expanded the University's intellectual and administrative structures into domains of responsibility that are outside of the intended purposes of the University's 1862 Morrill

147. About 95% of the University's overall endowment, including the Regents General Endowment Pool, is restricted to donor's purposes. See: University of California Office of the President. 2011. *2011-12 Budget for Current Operations: Budget Detail*. (February 27, 2012, <http://budget.ucop.edu/rbudget/201112/2011-12-budget-detail.pdf>) pp. 16-17.

Act endowment, and inconsistent with the relevant sections of the *California Master Plan for Higher Education* as codified by the *Donahoe Higher Education Act* and placed in the California Education Code. The University was not established to serve as an elementary or secondary educational institution.

Recall that in its 1819 decision in the Dartmouth College case, which relied on the administrative controls defined in Dartmouth's Charter, the Supreme Court made it clear that a state may not unilaterally alter a contract after it has been granted. In this present situation, the California Legislature, the Governor, and the Regents have interfered with the University's capacity to carry out its purposes as these are defined by the 1862 Morrill Act (and subsequent related legislation), the Organic Act of 1868, and the California Education Code.¹⁴⁸

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148. The Legislature's failure to ensure the University's compliance with the terms of the 1862 Morrill Act can be interpreted as a breach of contract. A breach of contract is defined as a "violation of a contractual obligation, either by failing to perform one's own promise or by interfering with another party's performance." Anon. 1999. "breach of contract". Pages 182-183 in Garner B. A., ed. *Black's Law Dictionary, Seventh Edition*. St. Paul, Minnesota: West Group.

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CHAPTER 10

Refocusing and Reinvigorating Public Higher Education

“It ought always to be remembered, that literary institutions are founded and endowed for the common good, and not for the private advantage of those who resort to them for education. It is not that they may be able to pass through life in an easy or reputable manner, but that their mental powers may be cultivated and improved for the benefit of society. If it be true no man should live for himself alone, we may safely assert that every man who has been aided by a public institution to acquire an education and to qualify himself for usefulness, is under peculiar obligations to exert his talents for the public good.”
—Bowdoin College President Joseph McKeen, 1802 ¹

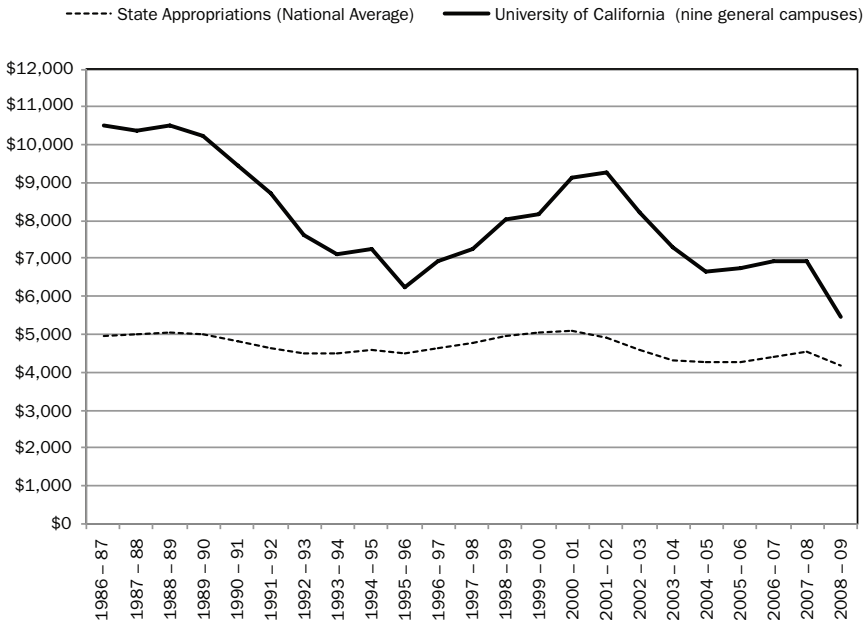
Each of the public research universities established under the terms of the 1862 Morrill Act has a unique individual history, but as a group they share common origins. At least three predominant themes emerged from our three-structures analysis of those common origins: the extent of academic independence from political and religious influence; control over intellectual direction, including curricular development and research; and sources of funding for higher education. As we stated in our introductory chapter, a deterioration of higher education is taking place in part as a result of reduced unrestricted state funding for public research universities, and in part because these universities have lost their sense of direction.

Unrestricted state funding, free from external limitations, sustains

1. Bowdoin College President Joseph McKeen, 1802. Quoted in Rudolph, F. 1962. *The American College and University: A History*. New York: Alfred A. Knopf. pp. 58-59. Rudolph cites Louis Clinton Hatch (1872-1931). 1927. *The History of Bowdoin College*. Portland, ME: Loring, Short & Harmon. p. 19. Frederick Rudolph says that “in describing Bowdoin as a public institution, President McKeen acknowledged the public nature of the private educational corporation, as indeed any early nineteenth-century college president would have done, and he reminded the students that they owed their benefactor, society, a return on its investment.” p. 59. This McKeen quote is found also in Thelin, J. R. 2004. *A History of American Higher Education*. Baltimore: The Johns Hopkins University Press. p. 71.

the public research university’s autonomy and enables the university to function according to its charter-defined purposes and intellectual direction. Restricted funding, or funding designated for the support of a particular purpose or outcome, can constrain the open pursuit of knowledge and interfere with the public research university’s purposes. Over the past few decades, states have let unrestricted taxpayer contributions to their universities decline when one adjusts for campus population growth and inflation. A combination of finding efficiencies and raising funds from other sources has not filled the gap and has also made campuses beholden to the other sources as faculty and administrators chase foundation, corporate, alumni, and any other dollars they can find. A reduction in unrestricted state funding erodes the university’s autonomy.

Figure 10.1
Per Capita State Appropriations to Public Research Universities,
Adjusted for Inflation: 1986–87 to 2008–09



In Figure 10.1, we compare per capita state appropriations for the University of California (nine general campuses) with national average

per capita state appropriations for public research universities (including UC), for the years 1986-1987 through 2008-2009.² According to our calculations, per capita state appropriations for the University of California's nine general campuses decreased 48 percent from a 1986-1990 average of \$10,415 to \$5,453 in 2008-2009. Nationally, average per capita state appropriations for public research universities decreased 17% from an average \$5000 for the years 1986-1990, to about \$4171 in 2008-09.

Funding for unrestricted uses sustains the public research university's autonomy and is crucial to the pursuit of knowledge in the public interest. In terms of intellectual autonomy, unrestricted state funds, revenues from unrestricted endowments, unrestricted gifts (which are rare), and endowed chairs controlled by individual faculty provide the greatest benefit. All other funding is targeted to greater or lesser extents. Given the interdependence of the university's funding and its intellectual direction, the search for financial support wherever it may be found to replace reduced state unrestricted funding contributes to the loss of the coherence of the university's direction and its ability to serve society by charting an independent intellectual course into the future.

There are numerous sources of intellectual direction available to universities, including the federal and state governments, the university's governing board, and the university's President and Faculty. Of these, the federal and state governments are also sources of funding for the university.

THE ROLE OF THE FEDERAL GOVERNMENT

The first source of intellectual direction for the nation's public research universities is the federal government. In Chapter Eight, we looked at the early history of federal scientific agencies. In the nine-

2. Figure 10.1 was generated using state appropriations and enrollment data for 122 institutions in 47 states from the IPEDS Data Center at the National Center for Education Statistics (NCES). NCES is located within the U.S. Department of Education and the Institute of Education Sciences. Some institutions that met our analysis criteria were excluded from our calculations because of insufficient data, including all public research universities located in the states of Delaware, New Jersey, and New York. Privately-controlled MIT and Cornell University are 1862 Morrill Act institutions but are not included in the calculations. Adjustments for inflation were calculated using the "Consumer Price Index-All Urban Consumers" index from the U.S. Bureau of Labor Statistics.

teenth century, the federal government established and funded scientific agencies to conduct research in the public interest to inform national policies and programs. The first of these agencies was the Survey of the Coast, founded in by President Thomas Jefferson in 1807 and renamed the Coast Survey in 1832.³ The United States Naval Observatory was established in 1830 and expanded in 1844 to include astronomical research.⁴ The United States Department of Agriculture (USDA), established by Congressional Act and signed by President Lincoln on May 15, 1862, hired research scientists in the 1870s and 1880s.⁵

In Chapter Six, we looked at the 1862 Morrill Act, the statute enacted by the U.S. Congress that established the nation's network of public research universities. Complementing and expanding on the enterprise of the federal scientific agencies, these universities carry out research to advance knowledge needed by the nation, with the research programs in turn supporting academic programs. The 1862 Morrill Act

3. National Oceanic & Atmospheric Administration. 2009. NOAA Legacy: <http://www.history.noaa.gov/noaa.html> (Accessed: January 2, 2009). NOAA was created in 1970 by joining the United States Coast and Geodetic Survey (established in 1807), the Weather Bureau (established in 1870), and the Bureau of Commercial Fisheries (established in 1871). Separately, these agencies were: 1) America's first physical science agency, 2) America's first agency dedicated specifically to the atmospheric sciences, and 3) America's first conservation agency. Ferdinand Rudolph Hassler, a Swiss immigrant, organized the administrative and intellectual structures of the original Coast Survey.

4. Department of the Navy. 2008. *A Brief History of the Observatory*. U.S. Naval Observatory Public Affairs Office. http://www.usno.navy.mil/brief_history.shtml (Accessed: December 23, 2008).

5. See: Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture*. Studies in Administration: Volume X. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. pp. 3-8.

See also: Bowers, D. E. 1998. "Agriculture, Department of". Pages 24-33 in Kurian G. T., ed. *A Historical Guide to the U.S. Government*. New York: Oxford University Press.; Rasmussen, W. D. 1983. "Department of Agriculture (USDA)". Pages 86-91 in Whitnah D. R., ed. *The Greenwood Encyclopedia of American Institutions: Government Agencies*. Westport, Connecticut: Greenwood Press.; Dabney, C. W. 1900. "Agricultural Education" in Butler N. M., ed. *Education in the United States: A Series of Monographs Prepared for the United States Exhibit at the Paris Exposition, 1900*. Albany, New York: J. B. Lyon Company. pp. 11-13. Henry Leavitt Elsworth (1791-1858) was appointed Commissioner of the Patent Office in 1836.

For greater detail on the history of the Patent Office and its relation to the USDA, see: Harding, T. S. 1941. "The Rise of the United States Department of Agriculture". *The Scientific Monthly* 53: 554-564. Harding was the Editor of Scientific Publications, U.S. Department of Agriculture.

links teaching with research. Knowledge is constantly advancing and University instructional programs in agriculture and the mechanic arts are dependent on research for course content.

“The field of knowledge is the common property of all mankind, and any discoveries we can make in it will be for the benefit of ... every other nation, as well as our own.”—Thomas Jefferson, 1807 ⁶

Intellectual direction linked to funding is at the core of Morrill Act. Under the Act’s provisions, each state established a perpetual endowment for its land-grant university. The perpetual endowments are permanently restricted funds for the support of specific purposes and uses defined by the Act and are to be applied to the “uses and purposes prescribed” in the Act, and to “no other use or purpose whatsoever.” ⁷

Section Four of the Morrill Act explicitly required the states to apply the revenue derived from the sale of lands granted under the Act to the endowment, support, and maintenance of “at least one college where the leading object shall be, without excluding other scientific and classical studies...to teach such branches of learning as are related to agriculture and the mechanic arts...to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life.” ⁸ The Act does not promise that the endowment revenue is sufficient to provide an adequate level of funding to support the purposes and uses of the university, and does not prohibit the states from providing additional funding to the institutions receiving the benefits of the endowment. But the purposes, uses, and intellectual direction of the institutions that can receive the funds are clearly defined by the Act, with no other purposes allowed; therefore, any conditions or restrictions associated with additional sources of funding logically would

6. Bergh, A. E., ed. 1907. *The Writings of Thomas Jefferson*. Definitive Edition, Volume XI. Washington, D.C.: The Thomas Jefferson Memorial Association. Letter from Thomas Jefferson to Henry Dearborn (the Secretary of War), June 22, 1807. Transcribed letter reproduced on pages 251-252: quote on p. 252.

7. United States Congress. 1862a. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>). Section 2.

8. *Ibid.* Section 4.

have to be consistent with the university's "leading object" as defined by the Act.

Section Five conveys the Act's intent for the states to establish a national system of research institutions. It refers to experiments anticipated to be conducted and requires the universities to distribute research results to each of the other land-grant universities and the federal government: "An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results."⁹

In 1887, the U.S. Congress passed and funded the Hatch Act that established Agricultural Experiment Stations connected with the colleges established under the 1862 Morrill Act. The purpose of the Hatch Act of 1887 was to promote investigation and experimentation in agricultural science to acquire useful and practical information on agricultural subjects.¹⁰ The Second Morrill Act (1890) authorized additional federal appropriations for the endowment and support of the colleges and universities that were established in accordance with the 1862 Morrill Act.

The federal government's traditional role as funder of research in the national interest is grounded in the history of the federal scientific agencies and the national system of public research universities established under the provisions of the 1862 Morrill Act, including the Agricultural Experiment Stations established under the Hatch Act of 1887.

The federal government, whose priorities are implemented through research grants, continues to be a source of intellectual leadership for the public research university. Research grant funds arrive at universities from individual departments of government, the National Science Foundation, and other avenues.

THE ROLE OF THE STATE GOVERNMENT

The next source of intellectual direction for universities is their state

9. *Ibid.* Section 5.

10. 1887. *The Hatch Act of 1887 Establishing Agricultural Experiment Stations*. Approved March 2, 1887 (24 Stat. 440). Amended: 7 U.S.C. 361a et seq. United States: <http://www.iahees.iastate.edu/projects/hatch.html>, <http://www.csrees.usda.gov/about/offices/legis/pdfs/hatch.pdf>. Accessed: September 9, 2008.

legislatures, which appropriate public funds to support higher education and enact legislation that shapes the institution. Through the power of the purse, state legislatures can influence the university's intellectual direction by either appropriating or withholding funds.

A core governing document for each of the land-grant universities is the 1862 Morrill Act. In addition, each institution established under the provisions of the Morrill Act has its own separate state-enacted statute or charter that defines the administrative controls specific to each institution, describes institutional purposes, uses, and intellectual direction consistent with the terms of the Morrill Act, and indicates sources of funding, including the Morrill Act endowment. In Chapter Three, we examined Dartmouth's charter, in Chapter Four we looked at the terms of the state statute that established the University of Virginia, and in Chapter Nine we analyzed the University of California's state statute, the Organic Act of 1868. Unlike the discrete governing documents of both Dartmouth College and the University of Virginia, the University of California's state statute integrates the intellectual direction and funding provisions of the federal 1862 Morrill Act with the University's administrative controls as defined by the state.

Dartmouth's Charter (1769), defined the College's administrative controls, provided intellectual direction consistent with higher education of that era, and assigned primary control of the College's continuing intellectual leadership to the college President. During the era covered by our history, Dartmouth's financial support was an unreliable patchwork of donations from wealthy individuals, fees collected from students, and grants of public land from the State of New Hampshire. But Dartmouth's multiple sources of funding had no authority to control the College's intellectual direction. Dartmouth's charter did not assign control of the College's intellectual direction to the board of English donors that had once controlled the College's finances, nor did it assign that control to the colonial government of New Hampshire, except through the authority of colonial officers appointed to the Board of Trustees under the terms of the Charter.¹¹ Although certain state officials held temporary seats on Dartmouth's Board during sessions

11. At the time of the Court's decision on *The Trustees of Dartmouth College v. Woodward*, the College was governed solely by its North American Board of Trustees.

that included deliberations involving public resources granted to the College by the State of New Hampshire, Dartmouth's charter did not give the State of New Hampshire authority to control the College's administrative functions and intellectual direction.¹²

Relying on the administrative controls in Dartmouth's charter for its 1819 decision in the Dartmouth College case, the Supreme Court affirmed Dartmouth's autonomy and made it clear that a state may not unilaterally alter a contract after it has been granted. The Court's decision in the Dartmouth case can also be read as an affirmation of institutional autonomy over intellectual direction regardless of funding source. This reading is important to the intellectual autonomy of the public research university in that the decision can be understood as having established a crucial precedent in defense of public funding for unrestricted uses in the university. The Dartmouth case also illuminates the role of the charter in securing the institution's autonomy. Financial support is distinguished from the University's administrative controls and sources of intellectual direction and leadership. Unless so authorized by the terms of a university's charter or statute, the state, or other agents, may not interfere with that institution's intellectual direction or administrative controls. However, in Chapter Three we also looked at two 20th century cases in which the civil government exercised its authority to step in when the institutional behavior of a privately-controlled institution of higher education (1) did not conform to the terms of its civil government-granted charter, and (2) was in violation of federal law.¹³

The University of Virginia, a publicly-controlled institution, was es-

12. Amendments to Dartmouth's Charter, concurrent with New Hampshire's grant of land to Dartmouth in 1807, altered the structure of the Board of Trustees to include certain state officials when public resources granted to the College by the state were included in the Board's deliberations. See: State of New Hampshire. 1807. "An Act granting a certain quantity of land to Dartmouth College, Passed June 18, 1807". *The Public Laws of the State of New Hampshire [microform] passed at a session of the General Court at Hopkinton, June 1807*. Notes: "The copies carefully compared with originals by Philip Carrigan, Secretary." Concord, New Hampshire, Printed by Jesse C. Tuttle for the state, 1807. Pages 33-35, Early American Imprints, Series II: Shaw-Shoemaker, Readex Digital Collections, no. 13198 (filmed).

13. Thelin, J. R. 2004. *A History of American Higher Education*. Baltimore: The Johns Hopkins University Press. pp. 72-73. The two cases we discussed in our Chapter Three are Adelphi University in New York, and American University in Washington D.C.

tablished under the provisions of *An Act Establishing the University*, passed by the Virginia General Assembly in 1819.¹⁴ The terms of this statute, now incorporated into the Code of Virginia, provided the essential elements of the university's intellectual direction and identified the Board of Visitors as the source for continuing intellectual leadership, giving the Visitors the power to "appoint and remove professors ... prescribe their duties, and the course of education."¹⁵ Unlike the University of California, which is an autonomous branch of the government of California, the University of Virginia does not have constitutional legal status and is subject to the control of the Virginia General Assembly.¹⁶

Under the provisions of its founding Act, the University of Virginia received financial support through the State of Virginia's Literary Fund, a public endowment originally established in 1810 to fund public educational institutions for the poor, and amended in 1818 to also provide support for the University of Virginia.¹⁷ The Literary Fund's President and Directors were not given authority to control the university's intellectual direction. Additional sources of funding for the University included loans to the University from the state's legislature, donations from individuals, and student tuition.

14. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

15. State of Virginia. 2011. Code of Virginia: Title 23 – Educational Institutions. Chapter 9 - University of Virginia. (March 30, 2011 <http://lis.virginia.gov/000/src.htm>)

16. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

Section 9: "The said Rector and Visitors shall at all times, conform to such laws as the Legislature may, from time to time, think proper to enact for their government; and the said University shall, in all things, and at all times, be subject to the control of the Legislature."

17. Commonwealth of Virginia. (amended 1990). Constitution of Virginia. Article VIII. Section 8. The Literary Fund.: Virginia General Assembly. <http://legis.state.va.us/Laws/search/Constitution.htm#8S8>.

See also: Mullins, F. G. 2001. *A History of the Literary Fund as a Funding Source for Free Public Education in the Commonwealth of Virginia*. Doctoral Dissertation. Virginia Polytechnic Institute and State University, pp. 23-32.

At the University of Virginia, as we also found at Dartmouth College, a single governing document established administrative controls, identified sources of funding, provided intellectual direction, and specified the institution's source of continuing intellectual leadership. In each of these two cases, the state provided financial support to the institution but did not have the power to control the institution's intellectual direction.

As the model to represent the more than 100 public research universities established in the United States under the provisions of the 1862 Morrill Act, we selected the University of California, the first multi-campus public research university system established in the United States.¹⁸ In contrast to Dartmouth College and the University of Virginia, which are governed by the administrative controls set forth in their single respective charter and state statute, the University of California has multiple governing documents. The first of these governing documents is the federal 1862 Morrill Act (and subsequent related legislation). The others include the Organic Act of 1868 (a California statute), the Constitution of California, and the *Donahoe Higher Education Act* (a California statute that codified sections of the report, *A Master Plan for Higher Education in California*, and is part of the California Education Code). Each of these governing documents is a source of intellectual direction for the university; however, the 1862 Morrill Act, the original source of intellectual direction for the University of California, is the controlling document. Like Dartmouth's charter, the 1862 Morrill Act does not include an option that would allow the states, or the administrative bodies of the universities established under its provisions, to unilaterally alter its terms. The Act has been amended by Congress, but not repealed.

The California state statute, *An Act to Create and Organize the University of California* (the Organic Act of 1868), recognized the 1862 Morrill Act as the University's source of intellectual direction, and as a source of funding. At its founding, the University of California had other sources of funding, but only the Morrill Act linked funding with intellectual direction, and the Organic Act included the Morrill Act's

18. Douglass, J. A. 1998. *A Brief on the Historical Development of the UC Academic Senate and the Universitywide Administration*. Prepared for the Academic Senate, University of California. (March 20, 2011 <http://www.universityofcalifornia.edu/senate/reports/senadbrf.pdf>).

curricular requirements for programs in agriculture and the mechanic arts. The Organic Act also defined the University's administrative structure and controls, including the roles of the Faculty, the President, and the university's governing board, The Regents of the University of California.

At Dartmouth College, we found that the terms of a charter can offer protection to institutions of higher education from external political interests. Similarly, states have acted to protect their universities from religious influence. To protect students and officers of the college from religious discrimination at the short-lived Dartmouth University, the state of New Hampshire restated the language in Dartmouth's original charter to require "perfect freedom of religious opinions" for all members of the university community. The intellectual direction provided in the state statute that established the University of Virginia is notable for the absence of theology. The *Virginia Act for Establishing Religious Freedom* (1786), a statute enacted prior to the founding of the University of Virginia, provided additional protection to the university from interference by religious interests. At the University of California, the Organic Act of 1868 prohibited political and religious tests in the appointment of Regents and Faculty. To more completely defend the University of California's administrative and intellectual integrity, Article IX, Section 9 of the 1879 version of the Constitution of California raised the status of the university to an autonomous public trust for the use of the citizens of the state, protected from both political and religious influence.

Although the current version of the California Constitution does not require the Legislature to provide financial support to the University of California, the origins of the California Legislature's role in securing and protecting funding for the University of California are found in Article IX, Section 4 of the 1849 Constitution of California.¹⁹ That role

19. State of California. 1849. *Constitution of the State of California*. [The 1849 State Constitution was California's first state constitution. The State currently operates under a constitution adopted in 1879.]: California State Archives. http://www.sos.ca.gov/archives/level3_const1849txt.html (Accessed: June 16, 2009).

Article IX, Sec. 4. "The Legislature shall take measures for the protection, improvement, or disposition of such lands as have been, or may hereafter be reserved or granted by the United States, or any person or persons to the State for the use of a University; and the funds accruing from the rents or sale of such lands, or from any other source for the

was expanded in 1864, when the Legislature accepted the terms of the 1862 Morrill Act. The California Legislature's current role in relation to the University of California's intellectual direction is defined in Article IX, Section 9 of the 1879 California Constitution, in which The Regents of the University of California are given "full powers of organization and government, subject only to such legislative control as may be necessary to insure the security of its funds and compliance with the terms of the endowments of the university."²⁰

The *Donahoe Higher Education Act* (1960) defined the responsibilities of California's three segments of higher education: the California Community Colleges, the California State University, and the University of California. The *Donahoe Higher Education Act* defines the University of California as the "primary state-supported academic agency for research," and the "sole authority in public higher education to award the doctoral degree in all fields of learning."²¹

The origins of the state's traditional role as funder of the open pursuit of knowledge are found in the administrative controls of the governing documents of Dartmouth University, the University of Virginia, and the University of California. The State of New Hampshire provided financial support to Dartmouth College, but did not have authority under the terms of Dartmouth's Charter to control the College's intellec-

purpose aforesaid, shall be and remain a permanent fund, the interest of which shall be applied to the support of said University, with such branches as the public convenience may demand, for the promotion of literature, the arts and sciences, as may be authorised by the terms of such grant. And it shall be the duty of the Legislature, as soon as may be, to provide effectual means for the improvement and permanent security of the funds of said University."

20. —. 1879a. Constitution of California. Article IX, Section 9 (as amended 1918-1976). (March 10, 2011 http://www.leginfo.ca.gov/.const/.article_9)

21. —. 2011. California Education Code. Title 3. Postsecondary Education. Division 5. General Provisions. Part 40. Donahoe Higher Education Act. Article 1. Definitions. Section 66000. This part shall be known and may be cited as the Donahoe Higher Education Act. (August 4, 2011 <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=66001-67000&file=66010.1-66010.8>) 66010.4. (c) "The University of California may provide undergraduate and graduate instruction in the liberal arts and sciences and in the professions, including the teaching professions. It shall have exclusive jurisdiction in public higher education over instruction in the profession of law and over graduate instruction in the professions of medicine, dentistry, and veterinary medicine. It has the sole authority in public higher education to award the doctoral degree in all fields of learning, except that it may agree with the California State University to award joint doctoral degrees in selected fields. The University of California shall be the primary state-supported academic agency for research."

tual direction. The State of Virginia provided funding to the University through the state's Literary Fund and other means, but the University's founding statute and the Board of Visitors were the University's sources of intellectual direction. The California State Legislature provides funding to the University of California and can enforce the intellectual direction provided by the University's founding federal statute, but it is not the source of the University's intellectual direction. In each of the three institutions we analyzed, the state provides funding, but does not have the power to control the institution's intellectual direction. This relationship defines the state's traditional role as funder of the open pursuit of knowledge, since state appropriations to support the university's teaching and research operations must be unrestricted.

THE ROLE OF THE UNIVERSITY GOVERNING BOARD

In addition to the federal and state governments, the University's governing board can also be a source of intellectual direction. In our review of the early history of Dartmouth College in Chapter Three, we found that Dartmouth's Board of Trustees had the power to appoint and remove all college officers, including professors and the college president. The college president, a member of the Board, had charter-assigned authority to set the intellectual direction for the college; but through its power to appoint and remove officers and faculty, the Board could also shape the intellectual direction of the College.

At Dartmouth University, an early model of a public university, responsibility for the university's intellectual direction shifted away from the authority of the individual university president and toward a state-appointed governing board when a newly expanded Board of Trustees acted to set the new University's curriculum, with confirmation by a state board of overseers. This example of a civil government setting the intellectual direction of a university can be understood as the forerunner to the stipulation of the public research university's intellectual direction by the U.S. Congress in the provisions of the 1862 Morrill Act.

The University of Virginia's original source of intellectual direction was Thomas Jefferson, the University's founder. Jefferson was also Rector of the University's Board of Visitors, whose members were appointed by the state's governor. Under the terms of the Act that established the University, which included intellectual direction, the Visi-

tors had the power to appoint and remove professors and define the course of education, but their decisions were subject to the approval of the state's legislature.²² Here, an appointed board and its Rector exercised extensive influence over intellectual direction.

The University of California, established under the provisions of the 1862 Morrill Act and the Organic Act of 1868, is governed by The Regents of the University of California. By the authority of the Constitution of California, The Regents of the University of California are appointed by the Governor, serve twelve-year terms without compensation, and have "full powers of organization and governance" subject to legislative control only in relation to the security of the university's funds, compliance with the terms of the university's endowments, and particular kinds of competitive bidding procedures.²³ However, since the University of California was established under the provisions of the 1862 Morrill Act, The Regents are also subject to the terms of that federal statute. As discussed below, the Regents delegated responsibility for the University's intellectual direction to the University's Faculty.

THE ROLE OF THE UNIVERSITY PRESIDENT

The University President, as both a member of the Faculty and an administrator, once set the intellectual course for his or her campus, as occurred at Dartmouth College, through appointments to the faculty, and choice of college curriculum. Dartmouth's President was also engaged in securing financial support for the college and allocating funds. Today's university presidents are less engaged in the intellec-

22. Jefferson, T. 1856. "An Act Establishing the University" (1818) [Passed January 25, 1819]. *The Early History of the University of Virginia, as contained in the letters of Thomas Jefferson and Joseph C. Cabell*. [Note: This book was edited anonymously by Nathaniel Francis Cabell. The Act is reproduced in Appendix K, pages 447-450.]. Richmond, Virginia J. W. Randolph.

23. State of California. 1879b. 1879 California State Constitution: Article IX, Section 9 (including amendments). (March 10, 2011 <http://content.cdlib.org/view?docId=hb409nb2hr&brand=calisphere>)

See also: The Regents of the University of California. 2010. Bylaws of The Regents of the University of California. (March 15, 2011 <http://www.universityofcalifornia.edu/regents/bylaws/bylaws.html>) Bylaw 8.1 Compensation of Regents: "No Regent shall receive salary or other compensation for services as a Regent nor shall any Regent other than the President of the University be eligible for appointment to any position in connection with the University for which a salary or other compensation is paid..."

tual agenda and more in the financial, especially fundraising, aspects of running a university.

The President of the University of California is responsible for the overall policy direction of the University and shares authority for its operation with the Faculty and the Chancellors of the multi-campus University of California system. In their “Statement of Expectations of the President of the University,” the Regents of the University of California identify the President of the University as “the academic leader of the institution,” and hold the President responsible for “defining the vision for the University,” and assuring the adequacy of the University’s financial resources.²⁴ The President must “monitor and audit the expenditure of funds and...ensure the University is a responsible steward of the public funds entrusted to the institution.”²⁵ The Regents’ Statement defines these Presidential roles without reference to the terms of the Morrill Act that control the institution’s purpose, uses, and intellectual direction. With regard to responsibility for the University of California’s intellectual direction, UC’s President does not act independently, as once did the President of Dartmouth College. As expressed in The Regents’ “Statement of Expectations of the President of the University,” the responsibilities of the University President must consider the role of the University’s Faculty and be “consistent with the delegation of authority to the Academic Senate and the concept of shared governance.”²⁶

THE ROLE OF THE FACULTY

Collectively as an administrative body and as individuals, the university’s Faculty members are essential to the institution’s intellectual direction, and in today’s era, the members of the Faculty are active participants in the university’s administrative planning and budget

24. —. 2011b. Approved Actions G - Committee on Governance, March 17, 2011. (March 23, 2011 <http://www.universityofcalifornia.edu/regents/aar/marg.pdf>)
See also: —. 2011a. Regents Policy 1500: Statement of Expectations of the President of the University. (February 2, 2012 <http://www.universityofcalifornia.edu/regents/policies/1500.html>)

25. —. 2011b. Approved Actions G - Committee on Governance, March 17, 2011. (March 23, 2011 <http://www.universityofcalifornia.edu/regents/aar/marg.pdf>)

26. *Ibid.*

processes. Our history documents a continuing expansion of Faculty-based authority over the intellectual direction of the university during the nineteenth century.

At Dartmouth College, in its early decades, tutors and professors might hold seats on the Board of Trustees; however, the influence of these individuals over the institution's intellectual direction would have been limited by their single vote on the Board. And, like the Board of Trustees of Dartmouth College, the University of Virginia's Board of Visitors exerted intellectual control through its power to appoint and remove professors. However, an important change appeared with the founding of the University of Virginia. In contrast to Dartmouth College (and Dartmouth University), where the Faculty played a very minor if any governance role, the Faculty of the University of Virginia were designated as a self-governing administrative body with responsibility for the day-to-day affairs of the university in addition to their role as teachers. The Faculty Chairman, a rotating position, had a function similar to the consultation and information role of the President of today's University of California. The Chairman was responsible for communications between the Faculty and the Board of Visitors. At this point in the history of the public university, we find the emergence of a decentralized administrative structure that introduces Faculty autonomy and enables shared governance between the University's board and the Faculty, in contrast to the centralized administrative structure that we saw at Dartmouth College.

The Act that established the University of Virginia described the University's intellectual structure and empowered the Board of Visitors to appoint and remove professors and to provide ongoing direction to the course of education.²⁷ However, given the Faculty's authority for the

27. In the year 2011, the University of Virginia's intellectual structure and the Board's authority to control the intellectual direction of the University is described in the Code of Virginia: § 23-63. Branches of learning to be taught. "The following branches of learning shall be taught at the University: the Latin, Greek, Hebrew, French, Spanish, Italian, German, and Anglo-Saxon languages; the different branches of mathematics, pure and physical; natural philosophy, chemistry, mineralogy, including geology; the principles of agriculture; botany, anatomy, surgery, and medicine; zoology, history, ideology, general grammar, ethics, rhetoric, and belles lettres; civil government, political economy, the law of nature and of nations and municipal law." (Code 1919, § 817). Also, § 23-76: Powers and duties of board; president and other officers; professors and instruction; regulations. "...and they shall appoint as many professors as they deem proper, and, with the assent

day-to-day governance of the University of Virginia, intellectual direction at the University of Virginia can be understood as being shared between the Faculty, the Board of Visitors, and the state's legislature.

Expanding on the model of administrative structure established at the University of Virginia, where the members of the University's Faculty constitute a self-governing administrative body, the Faculty of the University of California are members of the Academic Senate, a self-governing body defined in Section 18 of the Organic Act of 1868.²⁸ The Regents of The University of California delegated responsibility for the University's curricular direction to the Academic Senate.

The role of the Faculty of the University of California, like the Faculty of the early University of Virginia, includes both teaching and administrative functions. In contrast to Dartmouth College and the University of Virginia where Faculty were appointed by the institution's governing board, the Faculty of the University of California have authority to appraise and recommend candidates for academic appointments and promotions. Through its control over curriculum and degree granting in the twentieth century, the Faculty of the University of California, as an autonomous administrative body, assumed primary responsibility for the intellectual direction of the University; however, this responsibility, and the extent of the Faculty's autonomy, is controlled by the intellectual direction defined by the University's founding federal statute, the 1862 Morrill Act.

In 1864, the State of California accepted the terms of the 1862 Morrill Act. Revenue from the perpetual endowment, established under the provisions of the Act, must be applied to an institution that meets the Act's defined purposes, uses, and intellectual direction, described by the Act as the "leading object" of the institution. In 1878, the University of California's Morrill Act endowment funds were mingled with the University's other endowments²⁹ and in the twenty-first century,

of two-thirds of the whole number of visitors, may remove such president or any professor. They may prescribe the duties of each professor, and the course and mode of instruction." State of Virginia. 2011. Code of Virginia: Title 23 – Educational Institutions. Chapter 9 - University of Virginia. (March 30, 2011 <http://lis.virginia.gov/000/src.htm>)

28. University of California, Academic Senate. 2011. Academic Senate: About the Senate. (April 12, 2011 <http://www.universityofcalifornia.edu/senate/about.html>)

29. The Regents of the University of California. 1879. *Biennial Report of the Regents of*

UC's Morrill Act endowment funds continue to be a source of funding for the university. The Morrill Act endowment revenue, supplemented with unrestricted state funding appropriated by the state's Legislature, is crucial to the support of the University. These sources of funding, which do not conflict with the terms of the 1862 Morrill Act, or interfere with the autonomy of the University, enable the Faculty to carry out the teaching and research requirements of the Act.

The University's Faculty, as individuals and as an academic and administrative body, are subject to the terms of the 1862 Morrill Act and are the only university administrative body that has the capability and authority to implement the Morrill Act's curricular and research requirements. However, the written procedures that guide the University of California Academic Senate's decisions in the establishment, discontinuation, and periodic review of University course offerings and academic programs do not include any reference to the intellectual direction requirements of the Morrill Act. In addition, the reduction of unrestricted public funding for research, and a concurrent increase in restricted funding, interferes with the Faculty's responsibility for the University's intellectual direction, including the ability to carry out the intellectual direction requirements of the 1862 Morrill Act.

Without unrestricted funding, there would be no public research university. A reduction in unrestricted state taxpayer funds and a concomitant increase in restricted funds can influence the university's intellectual direction. Restricted funds include conditions that are a form of intellectual direction and have the potential to shift the university's intellectual direction away from the 1862 Morrill Act's requirements and cause the University to be out of compliance with the Act's terms. Autonomy derived from the provisions of a charter or a statute does not necessarily insulate an institution from external political pressures related to financial support. Conditions attached to financial support from private sources can threaten or impair the university's capacity to carry out its charter-defined purpose and meet its goals.

the University of California, for the years 1877-9. Sacramento: State Printing Office. pp. 79-80. "An Act to consolidate and perpetuate the various funds and endowments for the maintenance of the institution, and making the Treasurer of the State the authorized and responsible custodian thereof, was ...passed and 'approved March 19th, 1878.' "

REVITALIZING THE PUBLIC RESEARCH UNIVERSITY

“...we should now re-examine our system of higher education in terms of its objectives, methods, and facilities; and in the light of the social role it has to play.” — President Harry S. Truman, 1946³⁰

Overall we are advocating reinvestment and revitalization of two traditional roles of the state and federal government as summarized in this chapter: the state as funder of the open pursuit of knowledge and the federal government as funder of research in the national interest. These two processes, pursued in tandem, address the sometimes-conflicting but essential needs for intellectual direction in the public interest and the individual freedom of faculty. This is not meant to be a one-way street of imposing new federal guidelines while withholding funds but rather a collaboration that restores public funding to higher education in ways that maximize the benefits society will reap from its investment.

The needed investment in intellectual capacity has two parts. One involves creating the space, time, and physical resources that enable professors to pursue individual and group research topics. This involves the university's zone of intellectual capacity that we introduced in Chapter Two and it includes intellectual, administrative, and physical aspects. All of these must be protected and enhanced to meet the demands of growing numbers of eligible students and changing research needs. Universities have a unique ability to play this research role and it is essential to ongoing social and economic vibrancy. It is also the realm of taxpayer-funded higher education. Financing the intellectual freedom of university faculty is an essential service provided by tax-

30. Woolley, J. T., Peters, G. 2009. *The American Presidency Project* [online]. Harry S. Truman (XXXIII President of the United States: 1945-1953): 166 – Letter Appointing Members to the National Commission on Higher Education. July 13, 1946: *The American Presidency Project* [online]. Santa Barbara, CA. [.http://www.presidency.ucsb.edu/ws/?pid=12452](http://www.presidency.ucsb.edu/ws/?pid=12452). Woolley and Peters note, “The White House release making public the letter...stated that the President, in announcing the appointment of the Commission, called upon all Federal agencies to cooperate with the Commission in its work.” This excerpt from Truman's 1946 letter also appears in Smith, W., Bender, T., eds. 2008. *American Higher Education Transformed, 1940-2005: Documenting the National Discourse*. Baltimore: The Johns Hopkins University Press. p. 84. See also: United States. President's Commission on Higher Education, Zook, G. F. 1947. *Higher education for American democracy, a report*. Washington: U. S. Government Printing Office.

payer dollars and no other funding source provides the same context of mutual commitments between the public and university faculty. This area, including funding for libraries, is losing its support, yet it is essential – the most important of all funding. Out of this funding will come the debates, innovations, controversial ideas, and insights that societies and their leaders sometimes don't want to hear, but need to hear. The ideas and techniques that emerge from the university-based process of intellectual exchange become the source of up-to-date curriculum for the university's present and future courses and programs. Without this funding, the universities can't fulfill their unique role in society as a proving ground for social renewal through adoption and defense of good ideas and discrediting and abandonment of bad ideas, and for scientific advancement.

The second direction for intellectual change we propose involves re-examining the national relationship with public research universities. The Tenth Amendment to the Constitution of the United States, the Reservation Clause, prevents the establishment of a centralized National University. Our system of decentralized state research universities has substituted for a national institution; but state institutions require new approaches to align the nation's dispersed academic resources with programs that serve the national interest. There is a "national interest," the broad agenda for which we outlined at the beginning of Chapter One:

"... the global challenges we face today include maintaining social cohesion in the face of rapidly-changing ecological, technical, and social conditions, addressing resource constraints in supplying an adequate material quality of life as human population expands, reversing the loss of biodiversity and availability of habitats where complex living organisms can flourish, and tying the resolution of these challenges into widely-accepted narratives of global change that do not include violence of person against person and nation against nation."

If a National University had been established, the Morrill Act would not have been necessary as a tool to shape university curriculum to serve the nation's needs. Despite the decentralized organization of the nation's public university system, there is still a federal interest in public higher education. To strengthen a request for the expansion of federal funding, we recommend the development and adoption of

new federal criteria, in essence updating the terms of the University's founding federal statute, the 1862 Morrill Act.

REVITALIZING THE MORRILL ACT

In the second half the nineteenth century, the themes of curriculum and research, funding, and autonomy were inserted into the core of the 1862 Morrill Act, and played an important role in creating the hybrid national/state university system we now have. The original goal underlying the establishment of the nation's public research universities, as set forth in the Act, was to address national needs of that era. A renewed statement of national goals and purpose for higher education for the twenty-first century, which would update the language of the Morrill Act from "mechanical arts" to "engineering," and include the nation's current research and teaching interests in digital communication, human health, and environmental protection, expressed in a revitalized, reauthorized Morrill Act, would provide a useful and defensible over-arching mission for the nation's public research universities, and would contribute to a campaign to reinvigorate public support for higher education.

In 1862, under the terms of the Morrill Act, the federal government and the states entered into an agreement. With funds derived from the sale of federal lands, the states were to endow, maintain, and support at least one college where federally required courses in agriculture and the mechanic arts would be taught. In addition, the colleges were not to exclude other courses in the sciences and classics. In 1890, the second Morrill Act provided for an annual appropriation of federal funds "to be applied only to instruction in agriculture and mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction."³¹ The Act allowed the states to direct a portion of this additional funding to the preparation of instructors to teach courses in agriculture and the mechanical arts; but, identical to the terms of the 1862 Act, these an-

31. 1890. "Second Morrill Act". Act of August 30, 1890, ch. 841, 26 Stat. 417, 7 U.S.C. 322 et seq. United States: <http://www.csrees.usda.gov/about/offices/legis/secondmorrill.html> (Accessed: June 25, 2009).

nual funds were not to be spent on buildings.

Then, in 1981, the 1890 Second Morrill Act was amended to restrict the annual federal appropriation to the land-grant colleges only to instruction in food and agricultural sciences and the preparation of instructors for these fields of knowledge.³² With this amendment, the federal government stated what programs it will fund with the implication that the states are responsible for providing support for required federal programs and all other curricular offerings and institutional functions at their land-grant institutions. Unrestricted state funding for the support of public land-grant institutions, however, continues to decline in proportion to overall funding—leading to the possibility that the states will no longer fulfill their commitments under the 1862 agreement with the federal government.

A long-standing system of communications exists that binds state universities and federal funding and priorities. It is the reporting requirements of the 1862 Morrill Act and related legislation that created the national network of land-grant institutions. The exchange of research results between the colleges enabled the advance of knowledge needed to meet the goals of the Act. Today, the National Center for Education Statistics (NCES), located within the U.S. Department of Education, collects, analyzes, and publishes data reported by educational institutions.³³ However, unlike the annual reports that were required under Section 5 of the 1862 Morrill Act, the information collected and analyzed by NCES does not include reports of research results. The dissemination of research papers between individuals and institutions is provided by academic journal publishers; however, if revitalized, the 1862 and 1890 Morrill Act reporting requirements have the capacity to play a valuable supplemental coordinating function among public research universities.

Recall that in Chapter Six we looked at the history of the 1862 Morrill Act. Section Five of the Act requires each participating college to submit annual progress reports to the Secretary of the Interior and all

32. 1981. Agriculture and Food Act of 1981. U.S.C. Title 7: Agriculture > Chapter 13: Agricultural and Mechanical Colleges > Subchapter II: College-Aid, Annual Appropriation > Section 322: Annual Appropriation.

33. National Center for Education Statistics. 2012. "Who Is NCES?". (May 17, 2012 <http://nces.ed.gov/about/>)

the other land-grant colleges. These reports were required to include a record of experiments performed, improvements in the educational program, and relevant state industrial and economic statistics.³⁴ Section Five, Subdivision 4, of the 1862 Morrill Act, states:

“An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economic statistics, as may be supposed useful; one copy of which shall be transmitted by mail, by each, to all the other colleges which may be endowed under the provisions of this subchapter, and also one copy to the Secretary of the Interior.”³⁵

The Hatch Act of 1887, which established agricultural experiment stations connected with the colleges established under the 1862 Morrill Act, required the stations to submit annual reports of their operations to the governor of their state or territory and send copies to the other established experiment stations, to the Secretary of Agriculture, and to the Treasury of the United States.³⁶ The Second Morrill Act of 1890 required annual reports with more detail than those required by the 1862 Act: each college had to submit an annual report to the Secretary of Agriculture, the Secretary of Education, and all the other colleges that had been endowed under the Act.³⁷ In 1914, the Smith-Lever Act

34. United States Congress. 1862a. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>)

35. —. 1862b. 7 USC § 301 - 309. Morrill Act of 1862 (An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts). (March 27, 2012 <http://www.law.cornell.edu/uscode/text/7/305>). 7 USC § 305 - Conditions of Grant, Subdivision 4.

36. 1887. *The Hatch Act of 1887 Establishing Agricultural Experiment Stations*. Approved March 2, 1887 (24 Stat. 440). Amended: 7 U.S.C. 361a et seq. United States: <http://www.iahees.iastate.edu/projects/hatch.html>, <http://www.csrees.usda.gov/about/offices/legis/pdfs/hatch.pdf>. Accessed: September 9, 2008.

37. 1890. “Second Morrill Act”. Act of August 30, 1890, ch. 841, 26 Stat. 417, 7 U.S.C. 322 et seq. United States: <http://www.csrees.usda.gov/about/offices/legis/secondmorrill.html> (Accessed: June 25, 2009). The annual reports required by the 1890 Act included the following details: “... the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their cost and

established the cooperative agricultural extension services connected to the 1862 and 1890 land-grant institutions. The Act requires the colleges to submit an annual report of their extension services to the Secretary of Agriculture and the Secretary of the Treasury of the United States.³⁸ The annual reports required by the 1862 and 1890 Morrill Acts, the Hatch Act of 1887, and the Smith-Lever Act of 1914 generated inter- and intra-institutional links between the administrative and intellectual structures of the Land-grant institutions. At this point, the land-grant institutions, and their experiment stations and cooperative extension services, were united with the Federal Government by a web of annual reports and a shared funding source.

In addition to the reporting requirements described above, the Cooperative Extension Service connects the land-grant institution's administrative structure to a land-use analysis and planning program that extends from farming communities to the county, state, and national levels.³⁹ The Mount Weather Agreement of 1938 preserved the relationship between the USDA and the Cooperative Extension Service connected to the land-grant colleges and universities that was established under the Smith-Lever Act of 1914.

The land-grant institution's historic land-use analysis and planning capabilities could provide a combined administrative and intellectual structure with the authority to initiate and facilitate programs related

results, and such other industrial and economical statistics as may be regarded useful."

38. 1914. Smith-Lever Act. 7 U.S.C. 341 et seq. (Act of May 8, 1914, ch. 79, 38 Stat. 372). The United States of America: United States Department of Agriculture. Cooperative State Research, Education, and Extension Service. <http://www.csrees.usda.gov/about/offices/legis/pdfs/smithlev.pdf>. Accessed: September 14, 2008. "An Act to provide for cooperative agricultural extension work between the agricultural colleges in the several states receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture." The Smith-Lever Act Amendment of 1953 consolidated laws related to Extension programs and established new funding procedures.

39. See: Gaus, J. M., Wolcott, L. O. 1940. *Public Administration and the United States Department of Agriculture. Studies in Administration: Volume X*. Chicago: Public Administration Service [Published for the Committee on Public Administration of the Social Science Research Council]. Appendix B, p. 463. A detailed description of the decentralized administrative structure of the land-use planning program addressed by the Mount Weather Agreement is found in an 8-page pamphlet published by the USDA: 1940. *The Land Use Planning Organization*. United States Government Printing Office: Prepared by the Bureau of Agricultural Economics, in cooperation with the Extension Service and the Soil Conservation Service, U.S. Department of Agriculture. County Planning Series No. 3, Issued May 1940.

to energy, transportation, water, climate change, human health, and ecosystem protection.

We recommend extending and applying the resources and capabilities of this planning and reporting network to these crucial twenty-first century challenges, including a wide range of interrelated and complex environmental and economic problems, the protection and improvement of human health, and the maintenance of national security, including cyber-security.

Revitalizing the Roles of Each Level of University Administration

The University of California, our chosen model to represent the public research university, is governed by a hierarchy of administrative offices. Each level of the university's administrative structure can contribute to the revitalization of the university relative to the governance powers of the office. In Table 10.1 (pages 592-96), the University's administrative offices are arranged with the federal government placed in the uppermost position, followed below by the state government, university governing board, university president, campus chancellors, academic senate, and individual members of the faculty. The table identifies the source of each office's administrative powers, and recommends revitalization actions aligned with those powers. A subset is summarized here.

The U.S. Congress, empowered by the United States Constitution, passed the Morrill Act of 1862, which has been amended, but not repealed. In relation to the public research university, the federal government's traditional role is funder of research in the national interest.

The state government: The State of California accepted the terms of the Morrill Act and then passed the Organic Act to establish the University of California; therefore, it was reasonable for the Legislature to reserve the authority to assure that the University complies with the Morrill Act's terms. The University's Morrill Act endowment explicitly links funding with intellectual direction and these terms cannot be altered by the state government. Moreover, the University's public trust status does not release it from the terms of its founding federal statute, but the terms of the Morrill Act provide an additional measure of autonomy to the University because the state has no power to unilaterally alter the terms of the Act. The Morrill Act's

intellectual direction provisions are best supported with the University's Morrill Act endowment funds plus additional unrestricted state appropriations. A reduction of unrestricted state funding may be understood as being a form of political interference with the University's purposes and uses if it results in the alteration of the University's "leading object" as defined by the Morrill Act.

The individual Faculty member: The Morrill Act's synthesis of teaching and research can be performed only by the University's Faculty. Individual members of the Faculty are an important source of intellectual direction for the university through their choice of course content and objectives, research pursuits, and doctoral students. This decentralized source of intellectual direction, an expression of the University's autonomy, is essential. Many faculty members are realizing that their research niches have become too narrow and the problems they address are too tightly defined to lead directly to solutions to broader societal challenges and goals. So they are reaching out to colleagues located in other disciplines for collaborative assistance. This expansion of collaboration among university researchers is the kind of activity from which a broader vision for the university and its service to society could emerge.

Collaboration is a function of the interconnections of a system, or network. University networks exist at many scales: between individuals, between academic disciplines, between campuses within a state system, and at the scale of the national system of public research universities. Expanded collaboration between faculty at not only the campus and multi-campus system level within a state, but extended to the national level within the network of public research universities established under the Morrill Act of 1862, would greatly expand the university's level of service to society. A framework for this network was introduced in the Morrill Act's requirement for distribution of research results in the University's annual reports. The administration of federal funding under a revitalized twenty-first century Morrill Act, and the coordination of research and education programs between the network of land-grant research universities, federal science agencies, and teams of experts could take better advantage of the nation's capacity for research. State research funding agencies could take a parallel course, remaining project-focused.

In sum, the trend toward disinvestment in higher education is clearly not in the national interest. Funding for higher education comes in many forms, among them donations, tuition and fees, contracts, events, licenses, and public funds. This last category, which includes taxpayer-

provided general funds, is vital to the intellectual freedom and success of the University. They are also among the easiest funds to cut, and a multi-decade trend has emerged eroding this essential support. Restoring taxpayer support requires that universities better carry out their unique and essential roles in society. This can be done through updating the 1862 Morrill Act to provide 21st-century national goals for research at public universities. We have proposed themes above but a national dialog may generate a different list. The combination of federal funding incentives, extensive networking among research universities, state taxpayer funding and the intellectual leadership of research faculty will bring the nation its greatest return on its investment in higher education in the form of major social problems solved, problems avoided, and opportunities identified and seized. This has been a promise fulfilled by higher education for two centuries but action is needed for higher education to continue in this role in the 21st century.

In Chapter 9, Part Two, we clarified the meaning of the phrase “land-grant mission” as it applies to the University of California’s campuses. To facilitate the reawakening of the public research university, the recommendations presented in Table 10.1 depend on the intellectual direction provided by the 1862 Morrill Act.

As an institution established under the provisions of the 1862 Morrill Act, the University of California’s “leading object” is to teach “branches of learning” related to agriculture and the mechanic arts. The other sciences and the classical studies are not to be excluded from the curriculum.⁴⁰ The “branches of learning” that are related to agriculture and the mechanic arts, as well as the “other sciences” required by the Act, include the physical and biological sciences and the social sciences. The classical studies include the communication arts—writing, speaking, and languages—integral to all academic disciplines. The academic disciplines required by the Morrill Act remain vital to meeting regional, state, and national challenges in the present era.

40. United States Congress. 1862a. Chapter CXXX. – “An Act Donating Public Lands to the several States and Territories which may provide Colleges for the Benefit of Agriculture and Mechanic Arts.” (The Morrill Act of 1862). Act of July 2, 1862, ch. 130, 12 Stat. 503, 7 U.S.C. 301 et seq. (June 25, 2009 <http://www.csrees.usda.gov/about/offices/legis/morrill.html>). Section 2. The uses and purposes to which the endowment is to be applied are defined in Sections 4 and 5 of the Act.

Table 10.1 Part 1/5 Recommendations for the Reinvigoration of the Morrill Act of 1862 Institution: The University of California	
University Administrative Office	Recommendations
<p>Federal Government: United States of America Legislative and Executive branches</p> <ul style="list-style-type: none"> • Traditional Role: – Funder of research in the national interest • Role in Administration of the Public Research University: – Enactment of the Morrill Acts of 1862 and 1890, Hatch Act of 1887, Smith Lever Act of 1914, and other related legislation. • Source of Administrative powers: United States Constitution <ul style="list-style-type: none"> – U.S. Congress has power to enforce and amend the statutes that established the network of public research universities. – 1862 Morrill Act is the original source of intellectual direction for the public research university. – Research grants from NSF and other federal agencies 	<p>Congress:</p> <ul style="list-style-type: none"> • Provide additional funding support to the Public Research Universities established by the states under the terms of the Morrill Acts of 1862 and 1890, to be applied to teaching and research programs in the national interest: <ul style="list-style-type: none"> – Agriculture and Engineering disciplines as interpreted to meet current national needs, including energy, transportation, water, communications, climate change, national security and cyber-security, human health, and ecosystem protection. – To coordinate and oversee current national research needs under a revitalized Morrill Act, extend the administration of research programs beyond the USDA to other federal research agencies, including: BLM, CDC, DOD, DOE, DOT, EPA, NIH, NOAA, USGS, and USFWS. – Expand Cooperative Extension to include urban communities to address issues related to the interdependency of rural and urban areas. – Facilitate land use planning network. – Reinvigorate collaboration between public research universities by strengthening and expanding the 1862 Morrill Act’s §5 reporting requirements.

Table 10.1 Part 2/5 Recommendations for the Reinvigoration of the Morrill Act of 1862 Institution: The University of California	
University Administrative Office	Recommendations
<p>State Government: Governor and Legislature</p> <ul style="list-style-type: none"> • Traditional Role: – Funder of open pursuit of knowledge • Role in Administration of the Public Research University: – Power to ensure University’s compliance with the terms of its endowments • Sources of Administrative powers: – Accepted terms of the Federal Morrill Acts of 1862, 1890, and subsequent related federal statutes. – Established UC endowment under terms of the 1862 Morrill Act. – Passed the Organic Act of 1868 establishing UC – 1879 California State Constitution: Article IX, Section 9, as amended. – California Education Code (Donahoe Higher Education Act, 1960). 	<ul style="list-style-type: none"> • Preserve and protect administrative and intellectual autonomy of the University • Ensure UC compliance with terms of Morrill Act endowment: “leading object” requirement of 1862 Morrill Act, §4. • Amend Article IX, Section 9 of California Constitution to restore intellectual direction provisions of 1862 Morrill Act, §4. • Restore and increase unrestricted funding to UC to support research/teaching functions that comply with the intellectual direction of the 1862 Morrill Act, §4. (For detail on §4, see: Chapter Six: The Morrill Land-Grant Act of 1862.) • Reassign elementary and secondary education instructional outreach programs that are part of UC’s Student Academic Preparation and Educational Partnerships (SAPEP) to those state departments and regional and local agencies that have been established to provide public education at those levels.

Table 10.1 Part 3/5 Recommendations for the Reinvigoration of the Morrill Act of 1862 Institution: The University of California	
University Administrative Office	Recommendations
<p>University Governance Board: The Regents of the University of California</p> <ul style="list-style-type: none"> • Role in Administration of the Public Research University: <ul style="list-style-type: none"> – Full powers of governance • Sources of Administrative powers: <ul style="list-style-type: none"> – California State Constitution: Article IX, Section 9. – California Education Code (Donahoe Higher Education Act. – Morrill Acts of 1862, 1890, and subsequent related federal statutes. 	<p>Revise Regents’ Bylaws and Policies as follows:</p> <ul style="list-style-type: none"> • Incorporate University’s “leading object” as defined and required by §4 of the 1862 Morrill Act into Standing Orders, Bylaws, and Policies. • Generate administrative criteria consistent with 1862 Morrill Act’s §4 “leading object” requirements to evaluate proposals. • Strengthen University President’s role in University’s intellectual direction to include oversight of 1862 Morrill Act’s requirements. • Reference 1862 Morrill Act’s terms in University publications of record. • Budget priority: preserve “leading object” of 1862 Morrill Act’s §4. • Recognize State Legislature as a source public funding for the Public Research University: the Legislature accepted the terms of the Morrill Act. • Revise “Regents Standing Order 105.2, Duties, Powers, and Privileges of the Academic Senate,” to incorporate intellectual direction provisions of §4 of the 1862 Morrill Act. (For detail on §4, see: Chapter Six: The Morrill Land-Grant Act of 1862.)

Table 10.1 Part 4/5 Recommendations for the Reinvigoration of the Morrill Act of 1862 Institution: The University of California	
University Administrative Office	Recommendations
<p>University President</p> <ul style="list-style-type: none"> • Role in Administration of the Public Research University: <ul style="list-style-type: none"> – The University President consults with Chancellors and Academic Senate, and presents recommendations on the University’s academic plans to the Board of Regents. • Source of Administrative Powers: <ul style="list-style-type: none"> – Regents Bylaws 	<ul style="list-style-type: none"> • In advisory role: Recommend to the Board of Regents the reaffirmation of the 1862 Morrill Act’s §4 required “leading object”: the purpose of the University established under the terms of the 1862 Act. • Assume leadership role in the revitalization of the 1862 Morrill Act’s §4 “leading object” requirements in relation to 21st century needs that conform to Agriculture and Mechanic Arts disciplines. (For detail on §4, see: Chapter Six: The Morrill Land-Grant Act of 1862.)
<p>University Chancellor</p> <ul style="list-style-type: none"> • Role in Administration of the Public Research University: <ul style="list-style-type: none"> – Chief campus officer and administrative authority within the budgeted items for the campus; – Responsible for organization and operation of campus, its internal administration, and its discipline; – Nominates officers, faculty members, and other employees on campus. (1) • Source of Administrative Powers: <ul style="list-style-type: none"> – Regents Standing Orders 	<ul style="list-style-type: none"> • Assume campus leadership role in revitalization and reinterpretation of 1862 Morrill Act’s §4 intellectual direction provisions—the University’s “leading object.” (For detail on §4, see: Chapter Six: The Morrill Land-Grant Act of 1862.) • Responsible for campus conformance with terms of 1862 Morrill Act and subsequent related legislation.

Table 10.1
Part 5/5

Recommendations for the Reinvigoration of the Morrill Act of 1862
Institution: The University of California

University Administrative Office	Recommendations
<p>Academic Senate of the University of California: Systemwide and Divisional</p> <ul style="list-style-type: none"> • Role in Administration of the Public Research University: <ul style="list-style-type: none"> – The Academic Senate exercises direct control over academic matters of central importance to the University. “Its chief responsibility is to authorize, approve, and supervise all courses and to determine the conditions for admissions, certificates, and degrees.” (2) • Source of Administrative Powers: <ul style="list-style-type: none"> – Empowered by the Board of Regents 	<p>Revise Academic Senate Bylaws and Regulations:</p> <ul style="list-style-type: none"> • Establish criteria to inform decisions regarding initiation and abolition of courses and programs based on Morrill Act’s intellectual direction and the University’s “leading object.” • To comply with terms of 1862 Morrill Act and subsequent related legislation, strengthen or restore University Classics programs
<p>Individual Faculty Members</p> <ul style="list-style-type: none"> • Role in Administration of the Public Research University: <ul style="list-style-type: none"> – Intellectual direction, teaching, research, • Source of Administrative Powers: <ul style="list-style-type: none"> – Regents Bylaws, – Organic Act of 1868 	<ul style="list-style-type: none"> • For guidance on University course design and research programs, consult §4 of the 1862 Morrill Act, which defines the Act’s “leading object” intellectual direction criteria. (For detail on §4, see: Chapter Six: The Morrill Land-Grant Act of 1862.)
<p>Sources for Table 10.1, Parts 1-5:</p> <p>(1) The Regents of the University of California. 1971. Standing Order 100.6, Duties of the Chancellors. (Accessed February 3, 2012): http://www.universityofcalifornia.edu/regents/bylaws/so1006.html</p> <p>(2) Academic Senate: University of California-Santa Cruz. 2011. University of California, Santa Cruz: Academic Senate Division Manual. p.1. (Accessed December 11, 2011): http://senate.ucsc.edu/manual/santacruz-division-manual/index.html</p>	

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APPENDIX A

1862 and 1890 Morrill Act Institutions

The first institutions to be established in each of the 50 states under the terms of the 1862 and 1890 Morrill Acts are listed here in table format by state, institutional name, and year of establishment. ¹ The history of the 1862 Morrill Act is presented in Chapter Six.

The 1890 institutions included in the table are historically black universities that were established under the Second Morrill Act of 1890 (see Chapter Seven). The University of the District of Columbia, a historically-black college, is an 1862 institution.

The University of California, the institution we selected as a model to represent the public research university, is a system of campuses with a single governing board (see Chapters Nine-Part 1 and Nine-Part 2). The entire University of California system is an 1862 Morrill Act institution.

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Table – Appendix A Part 1/2 1862 and 1890 Morrill Act Institutions	
State	Land-grant institutions (Morrill Acts of 1862 or 1890), and year established
Alabama	Auburn University (1862), 1856 Tuskegee University (1890), 1881 Alabama A&M University (1890), 1875
Alaska	University of Alaska Fairbanks (1862), 1917
Arizona	University of Arizona (1862), 1885
Arkansas	University of Arkansas – Fayetteville (1862), 1871 University of Arkansas – Pine Bluff (1890), 1873
California	University of California, Berkeley (1862), 1868 University of California, San Francisco (1862), 1872 University of California, Davis (1862), 1905 University of California, Santa Barbara (1862), 1909 University of California, Los Angeles (1862), 1919 University of California, Riverside (1862), 1954 University of California, San Diego (1862), 1959 University of California, Santa Cruz (1862), 1962 University of California, Irvine (1862), 1965 University of California, Merced (1862), 2005
Colorado	Colorado State University (1862), 1870
Connecticut	University of Connecticut (1862), 1881
Delaware	University of Delaware (1862), 1833 Delaware State University (1890), 1891
District of Columbia	The University of the District of Columbia (1862), 1976
Florida	University of Florida (1862), 1853 Florida A&M University (1890), 1887
Georgia	University of Georgia (1862), 1785 Fort Valley State University (1890), 1895
Hawaii	University of Hawaii at Manoa (1862), 1907
Idaho	University of Idaho (1862), 1889
Illinois	University of Illinois at Urbana-Champaign (1862), 1867
Indiana	Purdue University (1862), 1869
Iowa	Iowa State University (1862), 1858
Kansas	Kansas State University (1862), 1863
Kentucky	University of Kentucky (1862), 1865 Kentucky State University (1890), 1886
Louisiana	Louisiana State University and Agricultural & Mechanical College (1862), 1860 Southern University and A&M College (1890), 1880
Maine	University of Maine (1862), 1865
Maryland	University of Maryland - College Park (1862), 1856 University of Maryland – Eastern Shore (1890), 1886

Table – Appendix A
Part 2/2
1862 and 1890 Morrill Act Institutions

State	Land-grant institutions (Morrill Acts of 1862 or 1890), and year established
Massachusetts	University of Massachusetts-Amherst (1862), 1863 Massachusetts Institute of Technology (1862), 1861
Michigan	Michigan State University (1862), 1855
Minnesota	University of Minnesota-Twin Cities (1862), 1851
Mississippi	Mississippi State University (1862), 1878 Alcorn State University (1890), 1871
Missouri	University of Missouri-Columbia (1862), 1839 Lincoln University (1890), 1866
Montana	Montana State University-Bozeman (1862), 1893
Nebraska	University of Nebraska at Lincoln (1862), 1869
Nevada	University of Nevada – Reno (1862), 1874
New Hampshire	University of New Hampshire-Main Campus (1862), 1866
New Jersey	Rutgers, The State University of New Jersey (1862), 1766
New Mexico	New Mexico State University-Main Campus (1862), 1888
New York	Cornell University (1862), 1865
North Carolina	North Carolina State University at Raleigh (1862), 1887 North Carolina A&T State University (1890), 1891
North Dakota	North Dakota State University-Main Campus (1862), 1890
Ohio	The Ohio State University (1862), 1870
Oklahoma	Oklahoma State University (1862), 1890 Langston University (1890), 1897
Oregon	Oregon State University (1862), 1868
Pennsylvania	The Pennsylvania State University (1862), 1855
Rhode Island	University of Rhode Island (1862), 1892
South Carolina	Clemson University (1862), 1889 South Carolina State University (1890), 1896
South Dakota	South Dakota State University (1862), 1881
Tennessee	University of Tennessee, Knoxville (1862), 1794 Tennessee State University (1890), 1912
Texas	Texas A&M University (1862), 1876 Prairie View A&M University (1890), 1876
Utah	Utah State University (1862), 1888
Vermont	University of Vermont (1862), 1791
Virginia	Virginia Polytechnic Institute and State University (1862), 1872 Virginia State University (1890), 1883
Washington	Washington State University (1862), 1890
West Virginia	West Virginia University (1862), 1867
Wisconsin	University of Wisconsin – Madison (1862), 1849
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