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AMERICAN HIGHER EDUCATION: PAST, PRESENT AND FUTURE*

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*Revised from Educational Researcher 17, no. 3 (April 1988): 13-23. My thanks to Janet Ruyle and David Allen for their help.

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AMERICAN HIGHER EDUCATION: PAST, PRESENT AND FUTURE*

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American higher education differs from almost all others in offering access to some part of the system to everyone who wants to go to college or university, without their having to show evidence of academic talent or qualification. Private attitudes and public policy--so consensual across the political spectrum that they occasion hardly any comment--affirm that the more people who can be persuaded to enroll in a college or university, the better. The budgets of most American colleges and universities are directly keyed to their enrollments; the "private" institutions through tuition payments, the public institutions through a combination of tuition and funding formulas that link state support to enrollment levels. And this linkage is incentive indeed for almost every institution to seek to encourage applications and enrollments.

Enrollment levels are central to the financial health and social functions of American higher education. I begin this essay by reviewing current enrollment trends and forecasts. I then explore the social and historical forces that gave rise to and sustain this unique system, and conclude by examining the system's prospects for responding to change, given its peculiar and deeply rooted characteristics.

Enrollment Trends and Forecasts

American higher education is the largest and the most diverse system of postsecondary education in the world. In 1947, just after World War II,

* Revised from Educational Researcher 17, no. 3 (April 1988): 13-23. My thanks to Janet Ruyle and David Allen for their help.

2.3 million students were enrolled in some 1800 American colleges and universities, about half in public and half in private institutions (Andersen, 1968, p. 8009). Although both sectors have grown over the past forty years, the enormous growth of enrollments during the 1960s and 1970s was absorbed largely by public institutions, both four-year and two-year colleges. Thus, by 1988 enrollments in America's roughly 3400 colleges and universities were running at 12.5 million and holding fairly steady, with about 78% enrolled in public institutions (see Table 1), some 4.7 million enrolled in two-year community colleges while 1.4 million were post-graduate students. (Higher Education and National Affairs (HE and NA), September 19, 1988, p. 30). No central law or authority governs or coordinates American higher education; the nearly 1900 private institutions are governed by lay boards; the 1500 public institutions (including some 960 public community colleges) are accountable to state or local authorities, but usually have a lay board of trustees as a buffer, preserving a high if variable measure of institutional autonomy.

Forecasts of future growth in higher education are almost uniformly wrong, not only in the United States but also abroad. The efforts of the British to predict the growth of their system after the Robbins Report in 1963 were consistently wrong, within a few years and by large amounts (Williams, 1983, p. 13). Clark Kerr has noted that the Carnegie Commission's early estimates of aggregate enrollments in the United States, of the numbers of new institutions, of faculty salaries, and of the proportion of the gross national product spent on higher education were all too high (Kerr, 1980, pp. 6-8). And more recently, nearly everyone concerned with American higher education was predicting a marked decline in enrollments starting in 1979, a decline that was "inevitable" given the decreased size of the college-age cohorts starting in that year. Indeed, the number of high school graduates did reach a peak of

Table 1
Higher Education Enrollment, 1947-1988

Year	Total Enrollment in thousands	Percent of Enrollments	
		Public Institutions	Private Institutions
1947	2,338	49 (1,152)	51 (1,186)
1950	2,297	50	50
1955	2,679	56	44
1960	3,789	59	41
1965	5,921	67	33
1970	8,581	75	25
1975	11,185	79	21
1980	12,097	78	22
1985	12,247	77 (9,479)	23 (2,768)
1986	12,501	78 (9,726)	22 (2,775)
1987	12,544	77 (9,706)	23 (2,838)
1988	12,560	78 (9,760)	22 (2,800)

(number in parentheses
in thousands)

Sources compiled from:

- 1947: Andersen, 1968, p. 8009.
- 1950-1980: Ottinger, 1984, p. 56 and p. 59.
- 1985: The Chronicle of Higher Education,
Oct. 15, 1986, p. 42.
- 1988: Digest of Education Statistics,
Table 3, p. 10.

some 3 million in 1979 and did, in fact, decline to about 2.6 million in 1984, a drop of about 13%. The demographic projections (see Figure 1) pointed to a further decline in the number of high school graduates, down to a four-year trough of about 2.3 million from 1991 to 1994 (McConnell & Kaufman, 1984, p. 29), though by Spring 1988 the actual numbers of high school graduates was already 150,000 higher than the figure projected for that year. (HE and NA, "Facts in Brief," November 4, 1988). But while the number of high school graduates has fallen since 1979, and will fall further, the parallel fall in college and university enrollments that was anticipated has simply not occurred; on the contrary, aggregate enrollments in American higher education grew between 1979 and 1984 by about 6%, and "colleges and universities had close to 1.5 million more students, and \$6 billion more revenues than predicted by the gloom and doomers" (Frances, 1984, p. 3).

Although the nation faces a further fall of about 12% in the numbers of high school graduates by 1992, (HE and NA, April 11, 1988, p. 3), it is unlikely that enrollments in higher education will suffer an equivalent fall. In fact, college and university enrollments are now projected by the National Center for Education Statistics to remain fairly stable through 1991 and beyond (The Chronicle of Higher Education (Chronicle), November 30, 1988). Among the reasons for not anticipating any large decline in American college and university enrollments over the next decade are these:

First, there has been a steady growth since the early 1970s in enrollments of older students. During the decade 1972-82, the greatest percentage increase in enrollments was among people 25 years old and older; those 35 years and older increased by 77%, and the enrollments of 25-34 year old students increased by 70%, as compared with a growth of 35% in total enrollments during that period. ("Statistics," 1984). By 1985, older students (25 years and

FACTS IN BRIEF

Number of High School Graduates Expected to Decline 12 Percent by 1992

Recent projections of the number of high school graduates from the nation's public and nonpublic schools show that:

- 2,768,189 students will graduate this spring. The number of graduates will decline during each of the next four years.

- The largest year-to-year declines will occur between 1989 and 1991. In 1990, about 2.59 million students—5.1 percent fewer than in 1989—will graduate. In 1991, 2.47 million students—4.6 percent fewer than in 1990—are expected to graduate.

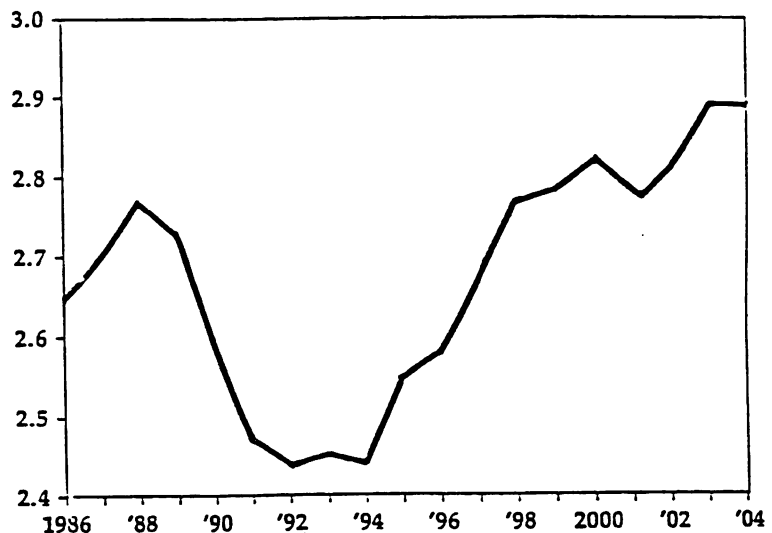
- By 1992, about 2.44 million students will graduate, a decrease of 12 percent compared to 1988.

- Beginning in 1995, the number of graduates will increase, returning to the 1988 level by 1998.

- By 2004, 2.89 million students are expected to graduate from high school.

This profile was compiled by Andrew G. Malizio of the American Council on Education's Division of Policy Analysis and Research, (202) 939-9452.

Projected Number of U.S. High School Graduates, 1986-2004 (in millions)



Source: "High School Graduates: Projections by State, 1986 to 2004," a joint publication of the Western Interstate Commission for Higher Education (WICHE), The College Board, and the Teachers Insurance and Annuity Association. (Available from WICHE, P.O. Drawer P, Boulder, CO 80301-9752; order publication #2A178, \$7, prepaid.)

April 11, 1988

older) accounted for 42 percent of college enrollments. (HE and NA, October 31, 1988, p. 3).

Second, increasing numbers of students are enrolled part-time: during the decade 1972-82, part-time enrollments increased by two-thirds while full-time enrollments were growing by less than a fifth. In 1988, 43 percent of all enrollments in higher education were part-time. (Chronicle, September 1, 1988). Third, the decade 1972-82 saw very large increases in the enrollments of women and minorities. The number of women in colleges and universities grew by 61% in that decade, and minority enrollments by 85%, as compared with 15% for men, and 30% for all white students. By 1988 women comprised 53 percent, and minority group members (largely Blacks and Hispanics) made up 18 percent of all college and university enrollments. (ibid.)

The growing enrollments of older students, of working and part-time students, and of women and minorities are all trends that are not dominated by the changing size of the college-age population. To take just one example: relatively small proportions of Mexican Americans (Chicanos) living in California currently go on to higher education. But the number of Chicanos in California's population, and especially among its youth, is very large. In 1981-82, about a quarter of all public school students were Hispanic, and, by the year 2000, Hispanics will begin to outnumber whites in the under 20 age group (Project PACE, 1984, p. 11). Even small changes in the propensity of Chicanos to graduate from high school and go to college would have a major impact on enrollment levels in California colleges and universities. One would predict a long-term growth in the numbers of Chicanos going on to college, simply on the basis of trends among other ethnic groups throughout American history. In addition, long-term changes in the occupational structure, such as the growth of the knowledge and information industries, increase the numbers of jobs that call for college-educated people. And many of our colleges and

universities are more than eager to welcome back older people who want to upgrade their skills and equip themselves for jobs in the new industries.

Enrollment levels may yet fall over the next few years. Moreover, population movements, changes in the economy, and change in the size of age cohorts will affect both the various states and regions and their institutions differently. Not only will there be the obvious contrast in the effects for, say, Ohio and Texas; there will also be equally great differences in the effects for each region's public community colleges, minor and elite private four-year colleges, and research universities. Some private colleges will certainly close over the next decade, and perhaps some public institutions will consolidate, though recent figures show an increase in the number of private four-year colleges over the past four years which one would not have predicted (Tsukada, 1986, p. 101, Figure 5.3). But the birth and death of colleges in large numbers throughout our history has been and continues to be a natural outcome of giving the market a great influence over our diverse and decentralized system of higher education. And although there may be closures, they will be mostly of weaker institutions, and may well leave the system as a whole even stronger (Glenny, 1983).

But if it is not prediction in the sense of forecasting, the value of this exercise lies elsewhere. The effort to think about what higher education will look like in twenty or forty years forces us to think more clearly about the historical forces that have shaped American higher education and given it its unique qualities and character. Eric Ashby has said that we cannot know "what the environments of tomorrow's world will be like," but "we already know what its heredity will be like" (Ashby, 1967). And, as Clark Kerr has observed, heredity in higher education is a particularly strong force. The universities of today can draw a direct line back to Bologna and Paris and Oxford and

Cambridge. Compared to universities, even religious institutions--those vehicles for the eternal verities--have changed more, and political and economic institutions incomparably more.

The Social and Historical Background*

Certain features leap out when one compares American higher education with the systems in other advanced industrial societies. By those comparisons American colleges and universities are indeed exceptional, made so by characteristics built deeply into our history and institutions which shape their capacity to respond to unanticipatable events.

First, the market and market-related forces have a deep, pervasive influence. Second, and related to the first, the structural diversity among institutions is enormous, in their size, functions and curricula, sources of support, configurations of authority, and academic standards, a diversity their student bodies mirror in their age distributions, purposes and motivations, class, ethnic and racial origins, and much else.

Third, the internal differentiation in our comprehensive universities and many of our larger state colleges in academic standards and educational missions gives them great flexibility to respond to the markets for undergraduates, faculty, graduate students, and research support. This internal differentiation complements the structural differentiation among our colleges and universities.

Fourth, a cluster of characteristics combine in our curricula, teaching styles, and patterns of assessment: the unique role of general education as a component of nearly all American first degree courses; the considerable extent of student choice in the selection of courses; and the modular course earning

*This section draws in part on my essay "Aspects of Diversity in American Higher Education," 1979.

unit-credits, an academic currency that makes a system of 3400 separate institutions.

Fifth, our mode of college and university governance is unparalleled. Lay boards and strong presidents, certainly strong by comparison with their counterparts elsewhere, command large administrative staffs located inside the institutions rather than in some central ministry or governmental agency.

The central and unique feature of American higher education is surely its diversity. It is this diversity--both resulting from and making possible the system's phenomenal growth--that has enabled our colleges and universities to appeal to so many, serve so many different functions, and insinuate themselves into so many parts of the national life. And it is through the preservation of diversity that our system will be best prepared to respond to changing demands and opportunities in the years ahead. To see why this is so, review briefly the historical roots of this diversity and the benefits we derive from it today.

America had established nine colleges by the time of the Revolution, when two--Oxford and Cambridge--were enough for the much larger and wealthier mother country. The United States entered the Civil War with about 250 colleges, of which over 180 still survive. Even more striking is the record of failure: between the Revolution and the Civil War perhaps as many as 700 colleges were started and failed. By 1880, England was doing very well with four universities for a population of 23 million, whereas the state of Ohio, with a population of 3 million, already boasted 37 institutions of higher learning (Rudolph, 1962, pp. 47-48). By 1910, we had nearly a thousand colleges and universities with a third of a million students--at a time when the 16 universities of France enrolled altogether about 40,000 students, a number nearly equaled by the American faculty members at the time.

The extraordinary phenomena of high fertility and high mortality rates among institutions of higher learning is still with us. For example, between 1974 and 1986, some 500 new colleges (both public and private) were created, and more than 100 others were closed or consolidated, leaving a net gain of nearly 400 in those twelve years. (Digest, Tables 159 and 160, pp. 182, 183). This is a phenomenon unique to the United States--one that resembles the pattern of success and failure of small businesses in modern capitalist economies. It is in sharp contrast with the slow, deliberately planned creation of institutions of higher and further education in most advanced industrial societies, or their even slower and rarer termination. And this points to the very strong link between higher education in the United States and the mechanisms of the market. This link has been a major factor in the emergence and persistence of large numbers of diverse kinds of institutions.

Two important features of markets, as compared with other forms of social action, are (1) that their outcomes are not the result of planning or central purposive decision, and, (2) that when producers are relatively numerous, their behaviors are marked by their competition for buyers. And that strengthens the influence of the buyers over the character and quality of the product, and indeed, over the very character of the producer.

In higher education we can see this when the buyers are students, and the producers, the colleges and universities, compete for their enrollment. We can see it also when the sellers are graduates competing for job openings. The two together translate opportunities in the job market into the size of academic departments and programs. The key link is the considerable autonomy of American colleges and universities, which enables them to move resources from one department to another in response to changes in student enrollment and demand. Similarly, when research groups compete for scarce funds, funding agencies gain power over the character, direction and quality of the research

they buy. In the United States, apart from the quite unusual period of rapid growth between 1955 and 1975, the supply of places has on the whole outstripped demand; and buyers or potential buyers at both ends, students and the employers of graduates, have had a powerful influence on the behavior of the producers. And this influence of buyer over seller is likely to be relatively constant in the decades ahead.

The Influence of Market Forces

We can see the emergence of strong market forces in the early history of American higher education, we can see them today in the very structure and workings of our institutions, and we can compare their strength here with the systems of other societies. Let us look at the market forces in American higher education in each of these ways: historically, structurally, and comparatively.

A multiplicity of forces and motives lay behind the establishment of colleges and universities throughout our history: religious motives; a fear of relapse into barbarism at the frontier; the need for various kinds of professionals; state pride and local boosterism; philanthropy; idealism; educational reform; speculation in land, among others, and in all combinations. But the number and diversity of institutions, competing with one another for students, resources, teachers, bringing market considerations and market mechanisms right into the heart of this ancient cultural institution--all also required the absence of any restraining central force or authority. The states could not be that restraining force: under the pressures of competition and emulation they have tended throughout our history to create institutions and programs in the numbers and to the standards of their neighbors. Crucially important has been the absence of a federal ministry of education with the power to charter new institutions, or of a single preeminent university that

could influence them in other ways.

The closest we have come as a nation to establishing such a central force was the attempt first by George Washington, and then by the next five Presidents, to found a University of the United States at the seat of government in Washington, D.C. Washington, in fact, made provision for such a university in his will, and mentioned it in his first and last messages to Congress. His strongest plea came in his last message to Congress, where he argued that a national university would promote national unity, a matter of deep concern at a time when the primary loyalties of many Americans were to their sovereign states rather than to the infant nation.

Washington also saw the possibility of creating one really first-class university by concentrating money and other resources in it. As he noted in his last message to Congress: "Our Country, much to its honor, contains many Seminaries of learning highly respectable and useful; but the funds upon which they rest, are too narrow, to command the ablest Professors, in the different departments of liberal knowledge, for the Institution contemplated, though they would be excellent auxiliaries" (Hofstadter and Smith, 1961, p. 158). Here indeed, Washington was right in his diagnosis. The many institutions that sprang up between the Revolution and the Civil War all competed for very scarce resources and all suffered to some degree from malnutrition. Malnutrition at the margin is still characteristic of a system of institutions influenced so heavily by market forces.

Defeat of the national university meant that American higher education would develop, to this day, without a single capstone institution. As it was, until after the Civil War, whatever the United States called its institutions of higher learning, it simply did not have a single genuine university--an institution of really first-class standing that could bring its students as far

or as deep into the various branches of learning as could the institutions of the old world.

A national university would have profoundly affected American higher education. As the preeminent university, it would have had an enormous influence, direct and indirect, on every other college in the country, and through them on the secondary schools as well. Its standards of entry, its curricula, its educational philosophies, even its forms of instruction, would have been models for every institution that hoped to send some of its graduates to the university in Washington. It would, in fact, have established national academic standards for the bachelor's degree, for the undergraduate curriculum, for the qualifications for college teachers, even for entrance to college, and thus for the secondary schools. Eventually it would have governed, shaped, and surely constrained the growth of graduate education and research universities in the United States.

A national university of high standard would surely have inhibited the emergence of the hundreds of small, weak, half-starved state and denominational colleges that sprang up over the next 170 years. They simply could not have offered work to the standard that the University of United States would have set for the baccalaureate degree, and demanded of applicants to its own postgraduate studies. The situation would have been familiar to Europeans, for whom the maintenance of high and, so far as possible, common academic standards has been a valued principle, almost unchallenged until recently. In the United States, after the defeat of the University of the United States, no one has challenged the principle of high academic standards across the whole system because no one has proposed it: there have been no common standards, high or otherwise. Indeed, if Europe's slogan for higher education has been "nothing if not the best," America's has been "something is better than nothing." And in that spirit, we have created a multitude of institutions of every sort,

offering academic work of every description and at every level of seriousness and standard. And by so doing we have offered Europeans nearly two centuries of innocent amusement at our expense.

The University of the United States never appeared. The ironic result is that without any central model, or governmental agency able to create one or more national systems, all of our 3400 institutions, public and private, modest and preeminent, religious and secular, are in some way part of a common system held together by common membership in a series of markets for students, support, prestige, faculty.

Another event in the early history of the Republic that had powerful effects on the shape and character of American higher education was the 1819 decision of the Supreme Court in the Dartmouth College case. It was a landmark decision, in that it affirmed the principle of the sanctity of contracts between governments and private institutions. In so doing it gave expression to the Federalist belief that the government should not interfere with private property even for the purpose of benefiting the public welfare. John Marshall, the then-Chief Justice, had written earlier: "I consider the interference of the legislature in the management of our private affairs, whether those affairs are committed to a company or remain under individual direction as equally dangerous and unwise." He and his colleagues on the Court decided in the Dartmouth College case that a charter of a private college or university was a contract which a state could not retroactively abridge. And that had important repercussions both for the growth of capitalist enterprises and for the future development of higher education in the United States.

In 1816 the New Hampshire legislature had passed a bill giving the state government broad powers to "reform" Dartmouth. The rationale for proposed changes in the college's charter was the plausible argument that, as the

college had been established (though as a private corporation) to benefit the people of New Hampshire, this could best be accomplished by giving the public, through the legislature, a voice in the operation of the institution. Chief Justice Marshall, ruling in favor of the college trustees, declared that state legislatures were forbidden by the Constitution to pass any law "impairing the obligation of contracts," and that the Charter originally granted the college was a contract (Hofstadter and Wilson, 1961, p. 218).

The Dartmouth College decision sustained the older, more modest role of the state in educational affairs against those who looked to the government to take a greater role in the working of society and its institutions. Marshall's decision had the practical effect of safeguarding the founding and proliferation of privately controlled colleges. Thereafter, promoters of private colleges knew that once they had obtained a state charter they were secure in the future control of the institution. By this decision state university development was slowed or weakened, though, paradoxically, it may be that by making it more difficult to create them, state universities were ultimately strengthened.

The failure of the University of the United States and the success of Dartmouth College in its appeal to the Supreme Court were both victories for local initiative and for private entrepreneurship. The first of these set limits on the role of the federal government in shaping the character of the whole of American higher education; the second set even sharper limits on the power of the states over private colleges. Together, these two events constituted a kind of charter for unrestrained individual and group initiative in the creation of colleges of all sizes, shapes and creeds. And as a result, there arose a situation resembling the behavior of living organisms in an ecological system--competitive for resources, highly sensitive to the demands of their environment, and inclined, over time, through the ruthless processes

of natural selection, to be adaptive to those aspects of their environment that permitted their survival. Their environment also has included other colleges, and later universities. So we see in this frog pond a set of mechanisms that we usually associate with the behavior of small entrepreneurs in a market: the anxious concern for what the market wants, the readiness to adapt to its apparent preferences, the effort to find a special place in that market through the marginal differentiation of the product, a readiness to enter into symbiotic or parasitic relationships with other producers for a portion of that market. And we are already employing a language that Europeans tend to find strange and often a bit distasteful when used in connection with institutions of higher learning. But distasteful or not, an American must insist on this as a central and distinguishing characteristic of American higher education--that it is a network of institutions which in many respects resembles in its behavior the myriad of small capitalistic enterprises that were springing up everywhere at the same time and in the same places, and often in response to the same forces.

We are, and have been from the beginning, an acquisitive society, confronted by a continent whose ownership had not been settled by sword and custom since medieval times. In America, as Louis Hartz has noted, the market preceded society, a central and powerful fact whose ramifications can be seen in all of our institutions and throughout our national life (Hartz, 1955). We are, to put it crudely, unembarrassed by the market. By contrast, Europeans and their governments, now as in the past, dislike market mechanisms and processes in education, and do everything they can to reduce their influence. And this difference arises out of our profoundly differing feelings about culture and about cultural competence. Markets threaten the "cultural integrity" of cultural institutions by increasing the power of consumers as

over against producers--that is, as over against the people who are presumably most competent to supply some given kind of cultural entity, whether it be a performance of music, or higher studies in philosophy or physics. In colleges and universities, the consumers, ordinarily students or their parents, are by definition incompetent, or at least less competent than the teachers and academic administrators who together provide instruction. Europeans try very hard to reduce the influence of the incompetent mass on high cultural matters, and to preserve a realm of elite determination of cultural form and content. We in the United States, surely the most populist society in the world, accept a larger role for the influence of consumer preference on cultural forms--even in the provision of what and how subjects are taught in colleges and universities. Europeans try to reduce the influence of consumer preference in a number of ways. Most importantly, they try to insulate their financing of institutions of higher education from student fees. By contrast, in the United States enrollment-driven budgets in all but a few institutions, both public and private, ensure that most institutions are extremely sensitive to student preferences.

Another example of the comparative hospitality of American institutions to market forces in higher education can be seen in the ways Congress has decided to provide major public funding for colleges and universities. After sharp debate in the early 1970s, this country chose to fund colleges and universities chiefly by providing grants and loans to students, rather than through direct support to the institutions themselves; the decision was to subsidize higher education through the consumers, not the producers. The result of this important decision was to substantially strengthen the relative power of consumers over producers, without increasing the power of central government over the producers.

The Character and Structure of Our Institutions

One can look at broad patterns of organization and finance of higher education (for example, multiple versus single sources of support), and see the differences between market systems and those dominated by other principles of organization and political decision-making. But we can also see the influence of market mechanisms in the private life of higher education, in the very processes of teaching and learning. One example is our peculiar system of earned and transferable "credits," a kind of academic currency that we all take for granted in American institutions. The unit-credit system is not found in most other countries, where degrees are earned by passing examinations or writing dissertations. But our credits, units that can be accumulated, banked, transferred, and, within limits, automatically accepted as legal academic tender toward an earned degree throughout the country, make possible the extraordinary mobility of our students between fields of study, and between institutions. Moreover, credits that can be accumulated and transferred also allow students to drop out, or "stop out," and return to college in ways that are increasingly familiar to us.

An inventory of the unique qualities of American higher education must include a reference to the multiplicity of subjects taught, a product of the extraordinary hospitality of our institutions to almost any subject that might have a claim to be useful, or to be rooted in a body of skill and knowledge that can be studied and taught. But this range of studies, often the subject of somewhat derisive comment by Europeans, would not be possible if we had a central agency maintaining "high standards" and scrutinizing new subjects for their appropriateness as judged by traditional criteria. The openness of our institutions to new subjects is linked to the absence of a central administrative body that certifies institutions and subjects, as well as to our consequent reliance on market forces that sustain our many modest as well as

strong institutions.

Or we could point to the intimate links between our colleges and universities and local industry, governments and other institutions and private organizations of all kinds, relationships which are envied and emulated elsewhere but rarely matched in scope (Eurich, 1985).

After one sketches this kind of inventory one is left with the question as to how these unique characteristics are all related, both in their origins and in their current functioning. Let us look, for example, at a cluster of phenomena embedded in American higher education: the lay board, the strong presidency, a weak professoriate, the internal administration, the absence of a central ministry of higher education, and consider how these are all tied together. The origins of the external nonacademic board of trustees lie in the precedent set at Harvard. The founders of Harvard had intended to "carry on the English tradition of resident-faculty control" (Rudolph, 1962, p. 166). But Harvard had to be founded, and not just developed. There simply was not a body of scholars to be brought together to teach and to govern themselves. A president could be found to take responsibility for the operation of the institution and he might find some young men to help him with instruction as tutors. But Harvard had been established for more than 85 years before it had its first professor; Yale for more than 50. "For over a century and a half, American collegiate education relied chiefly on the college president and his young tutors." And for a very long time indeed, well into the nineteenth century, "The only secure and sustained professional office in American collegiate education was that of the college president himself. He alone had, in the community and before the governing boards, the full stature of a man of learning. To this situation can be traced the singular role and importance of the American college or university president" (Hofstadter and Metzger, 1955, p.

124).

The lay board that arose to govern America's first college and the great majority of those that followed were created by groups of individuals, and not by the state. And these boards had to govern; there was no one else. They could appoint a president, and as busy men themselves they had to delegate to him the day-to-day running of the institution. He held his office, and everywhere in the U.S. still does, wholly at the pleasure of this external board; the president has no security of tenure as president (though he may hold tenure as a professor in the institution). But for a very long time there was no body of learned men making academic life a career, and thus no challenge to the president's authority so long as he had the support of his board of trustees.

The near absolute authority of the college president was lost over time--especially with the rise of the great research universities and the emergence of a genuine academic profession. And in this century, especially in the stronger institutions, a great deal of authority over academic affairs has been delegated to the faculty. But the American college and university president is still a more powerful person than his counterpart in European institutions, who faces a situation in which power is already held jealously by the professoriate, or by the academic staff more broadly, or by government ministries, or student organizations, or trade unions (Trow, 1985a).

The relatively great power and authority of the American college and university president also insured that when some institutions became very large, and needed a big bureaucratic staff to administer them, that staff would be an extension of the president's office, rather than responsible to a faculty body, or to state authorities. And by keeping the administrative staff within the university, the strong presidency has helped preserve the autonomy of the public university in the face of state authority.

I have mentioned how weak, indeed for a long time nonexistent, the academic profession in America was. And when professors did begin to appear, they did not acquire the enormous prestige and status accorded to the European professor. They were not part of a prestigious civil service, nor were they recruited from the highest social strata. Indeed, in a society which prized action and worldly success they were rather looked down on as men who had stepped aside from the real challenges of life. America, for the most part, has given its honors and respect chiefly to men of action rather than reflection; the very choice of an academic career for a very long time suggested to others that a person was incapable of managing such important matters as the affairs of a university (Hofstadter, 1963, pp. 24-51; Rudolph, 1962, pp. 160-61). And that tended to strengthen the hand of the president, who may have been a scholar, but almost certainly was also a man of affairs.

The relatively low status and weakness of the professoriate also meant that as the academic profession grew, it was not dominated by a handful of prestigious professors. The academic ranks were established during the growth of the research universities after the Civil War, but with almost the whole teaching faculty holding the rank of "professor" of differing ranks or grades, and with a remarkably large degree of independence for even young assistant professors. That is partly due to the egalitarian elements in American cultural life, which are still very strong, but partly also to the historic weakness of the senior professor--his lack of real power, social prestige, even scholarly distinction. Academic ambition directed itself not so much to rank--that could be assumed--but to national reputation and to the distinction of the institution or department in which one gained an appointment.

Many of the most important qualities of American higher education have arisen not from the strength but out of the weakness of its component

institutions. For example, as I have suggested, the relatively egalitarian character of American academic life, and the independence and authority of its junior members, are products not of the historical strength of American higher education but of its weakness, especially of the academic profession and the professoriate. But that has meant that we have avoided the bitter struggles between the professors and the other ranks of the academic profession which have marked European systems since World War II. In America the rank of professor was no great honor and held no great rewards, but was in fact the rank that every young instructor or assistant professor (and not just the few most talented ones) could expect to achieve in the fullness of time. And that ease of access to the rank of professor has helped to keep its status relatively low both within the university and outside it--where the title "Professor" still has slightly pejorative or comic overtones.

The connection between a weak academic profession, strong presidents, lay boards, and the power of the market in American higher education lies in the weakness of other forces which constrain the self-interested actions of individuals and institutions. Most commonly, those constraining forces in other countries are the state authorities allied with the academic professions and its organizations or guilds. In the United States central state power was initially weak, and in relation to higher education remained weak, in part as a result of the failure of the University of the United States and the Dartmouth College decision which guaranteed an essential role to the private sector. In addition the weakness of the professoriate greatly reduced that constraint on the market. On the other hand, strong presidents and their administrative staffs could act in pursuit of the self-interest of individual institutions, and lay boards could ensure that those institutions would continue to be responsive to the larger society, and to its markets for students and graduates, rather than to the state or professional guilds. And that certainly

has been and will be a source of strength as these institutions face an uncertain future and a changing environment.

Trends in Higher Education Finance

I have been looking backward and now look at the present and near past for trends and developments that might point in the direction of larger changes in the future.

In 1987-88 expenditures of all kinds on American colleges and universities were estimated to be over \$132 billion, an increase in current dollars of 70%, and in constant dollars of 35%, over 1981-82, representing roughly 2.7% of the Gross National Product (HE and NA, September 19, 1988; Digest, 1988, Table 23, p. 29). One important and distinctive characteristic of American higher education is the diversity of its sources of support. This diversity of funding sources has large consequences for the autonomy of American colleges and universities, and for their traditions of service to other institutions, both public and private, as well as for their finances. Taken in the aggregate, American college and universities get support from federal, state and local governments, from private sources such as churches, business firms, foundations and individuals, from students in the form of tuition and fees, living expenses in halls of residence, food services, health services, and the like, and from their own endowments, as well as from the sale of their services to others.

Government at all levels together provide nearly half of all current revenues for American higher education, and that excludes federal aid given directly to students, which shows up, for the most part, as tuition and fees from the students. The federal government provides only about 13% of the support for higher education overall, and that includes its support for research and development in the universities, but excludes the aid it provides

directly to students. State and local governments (mostly state) provide a third of all support for higher education. Students themselves provide another one-third of the funds for higher education, about a quarter in fees and tuition, and the institutions themselves about 15% from their own endowments and other sources. If we count federal aid to students as federal support to higher education, it increases the federal proportion to about 23% of total support, and reduces the student contribution to about the same proportion. Another 6% is provided by individuals, foundations and private business firms in the form of gifts, grants and contracts. (Digest, 1988, Table 223, p. 258).

These proportions, of course, differ between "public" and "private" colleges and universities, though it must be stressed that all American colleges and universities are supported by a mixture of public and private funds. For example, while in 1985-86 public colleges and universities got 45% of their operating budgets from their state governments, the private institutions got less than 2% from state sources. (But note that the private colleges got a slightly larger proportion of their support funds from the federal government than did the public institutions, 17 percent as compared with 11 percent. (Digest, 1988, Figures 16 & 17, p. 140).) The other big difference lies in the importance of student tuition payments that go directly to the institution: these account for less than 15% of the revenues to public institutions, but nearly two-fifths of the support for private institutions. These proportions differ sharply among even finer categories of colleges and universities; for example, as between public research universities and public four-year colleges.

In 1986-87 undergraduate student aid from all sources was running at nearly \$21 billion a year, 23% higher than in 1980-81. In 1986-87 nearly half (46 percent) of all undergraduates received some form of financial aid, over 35

percent receiving Federal aid. (Chronicle, December 2, 1987 and May 11, 1988). In real terms, however, student support from all sources had fallen by 6% since 1980-81, and aid from federally-supported programs by 16%, when adjusted for inflation ("Trends in Student Aid," Chronicle, December 2, 1987). The federal government in 1986-87 provided about \$15.3 billion in a complex combination of student grants, loans, and subsidized work-study opportunities. (ibid). Student aid has widespread support in the Congress as well as in society at large. And while the Reagan administration regularly proposed cuts in that aid, many of its proposals were defeated. For example, in 1985 Congress "blocked virtually all the cuts in aid to college students that the Reagan Administration proposed..." and was "drafting legislation to keep grants, loans and work opportunities essentially intact for five years" (Friendly, 1985, p. 15). While pressures on the federal budget arising out of the large deficits may be reflected in further pressures on federal student aid programs, there is little likelihood of cuts so deep as to endanger the programs. Federal support for students is here to stay.

Large increases in student aid at the state and institution levels (which now comprise over a quarter of the total student aid reported from all sources) have helped to offset the drop in federal funds for student aid. State student grant programs grew by 47%, and aid awarded directly by the institutions by 41%, both in real terms, between 1980 and 1986. At the federal level, the distribution of student aid has shifted from grants to loans: in 1975-76, 75% of federal student aid was awarded in the form of grants, but by 1984-85 the share of federal grant aid had dropped to 34 percent, while the share of loans had nearly tripled, from 21% to 61%. But by 1986, students were receiving from all sources nearly as much in grants, \$9.7 billion, as in loans, \$10.1 billion.

Many states did cut their support for public colleges and universities during the severe recession of 1980-82, but thereafter the levels of state

support tended to rise about as fast as economic recovery and rising revenues permitted. State tax funds for the operation of higher education (this does not include capital costs) was nearly \$31 billion for 1984-85, up 19% over 1983-84. "Over the last decade, [1974-84, state] appropriations [for higher education] increased 140 per cent nationwide. Adjusted for inflation, the increase was 19 per cent" (Evangelauf, 1985, p. 1 ff.). By 1988 the states were spending over \$34 billion on operating expenses for higher education. (Chronicle, September 1, 1980).

Federal support for basic research was also perceived by many as endangered by the Reagan administration. But between 1980 and 1988 federal obligations to universities and colleges for basic research increased by 37 percent in real terms, reaching \$9.5 billion by 1988. During the same period nondefense basic research grew by 40% in real terms, as compared with 11 percent for defense related basic research. ("The Reagan Years...", The AAAS Observer, January 6, 1989, p. 11).

Higher Education and American Society

We need not place very great weight on recent trends in enrollments and support. We know, especially from the sad example of British higher education, how rapidly these figures can change when they are built on shallow foundations. In Britain, where the university system has few friends in industry, in the professions, in the trade unions or the political parties, its friends, in the civil service and elsewhere, are unable to defend it against economic and political pressures from government.

But American higher education has many friends, and more important, many supporters in the society, and not just in government. The absence of any strong central governing and standardizing authority which can control (and limit) the growth of American higher education, and the concomitant

responsiveness of our colleges and universities to market forces, has allowed and indeed required them to find ways to serve other institutions and groups in the society in their constant search for support. We have not been able to afford the luxury of high academic standards across all our degree-granting institutions. The result is the diversity of standards and functions in our colleges and universities that we find so familiar, and that Europeans find so strange. So long as the governing assumption of a system of higher education is that only a minority of students can work at the required standard, that system is constrained both in its size and in the functions it can perform for its students and for the larger society. Such a system may perform the functions of elite selection, preparation and certification, as most European universities have done and still do. But it cannot penetrate as deeply or broadly into the life of society as American higher education has.

Some of the effects of mass higher education on American society are not, I believe, well recognized. Economists often say that it is best to measure and assess carefully what can be measured, and leave to others--historians, sociologists, educators, politicians--the discussion of larger effects of higher education on society that we cannot measure very precisely, are long delayed in their appearance, are "outcomes" rather than intended effects, and have sources only partly within the system of higher education and partly within the society at large. (For an economist whose views are similar to those expressed here, see Bowen, 1977, pp. 359-87.)

But let me suggest some of those effects here:

1. Higher education has substantial effects on the attitudes of those exposed to it. A large amount of research supports this assertion--and also that changes in attitudes occurring during the college years persist throughout life (Hyman, Wright, and Reed, 1975; Feldman and Newcomb, 1969). For example,

higher education achieves some of what it intends by broadening the perspectives of students, giving them an appreciation of other cultures and groups, making them more tolerant of cultural differences, and weakening the prejudices characteristic of uneducated people. And those changed attitudes in a population in turn make possible real changes in social structures, if and when they are accompanied by changes in law and institutional behavior.

In the United States, the years after World War II saw a steady decline in hostility toward black people, and a growing readiness on the part of whites to give blacks equal treatment and fair access to education, housing, and jobs. These changes can be seen in studies made of attitudes both in the general population, and among college students during the college years and after (Hyman and Wright, 1979; Stember, 1961; Stouffer, 1955; Clark, Heist, McConnell, Trow, and Yonge, 1972). I believe that the considerable progress the United States has made in race relations since World War II has been made possible by the growth of mass higher education, and the marked decline in racial prejudice that accompanied it. If that is true, then it represents a very great contribution of higher education to the life of the society, one that is almost never acknowledged by economists as a "benefit" of American higher education.

Higher education has played a more visible role in this revolution by helping to expand and educate black, Hispanic, and Asian middle classes. In 1985, the University of California at Berkeley for the first time admitted a freshman class made up of a majority (52%) of those minority group members. In the next century, those students will be assuming leadership positions in every institution in our society.

2. People who have been to college or university, on the whole, take a longer time perspective on public issues than do less well educated people. Such perspectives are important to assessing the significance and recognizing

the origins of a problem or issue, yet we do not measure them or give them value, certainly not as outcomes of higher education. Nations and industries cannot plan or develop programs without the help of people who take the long view, who can imagine the outcome of projects that may lie years in the future. And that perspective is very much a "benefit" of mass higher education.

In an increasingly complex society it is not enough that a small number of elites have these longer time horizons: the successful development and implementation of plans require that people with those perspectives exist throughout the society, and especially at the middle levels of the civil service in central, regional and local governments, and in public and private enterprises. Long-range plans require continual adjustments and modifications at the ~~levels~~ where they are implemented; people at those levels must be able to understand the purposes of long-range programs and be able to implement and modify them within planning guidelines.

3. Another skill that is gained or enhanced by exposure to higher education is the capacity of its citizens to learn how to learn. So much of what we learn in college or university is obsolescent in 10 years, obsolete in 25, that it is impossible to exaggerate the importance of the ability to continue to learn after finishing formal schooling. Wherever facilities are provided for adult education, they are now quickly filled by people who already have a first degree or some post-secondary education, who already have, as adults, developed a desire to learn (Organization, 1977, p. 27). Modern societies need citizens with that quality of mind, which is also a product, if often a by-product, of higher education. I believe that mass higher education in the United States, and especially its generous provision of education for adults, engenders and distributes more widely the habit of "life-long learning" than is true in most other countries.

These qualities of mind (they are more than attitudes) that I have mentioned--tolerance of cultural and class differences, a longer time perspective that helps sustain initiative among middle- and lower-level administrators, the ability to learn how to learn--are all created or enhanced by exposure to postsecondary education. As I have suggested, they are usually by-products of that education, but immensely important by-products for the life and progress of any society.

4. In American political life, higher education has two distinct roles. The more familiar one is the university as home of the cultural critic of the established political order and the nursery of radical and even revolutionary student movements. But less dramatically and visibly, the expansion and democratization of higher education may work in the other direction, to strengthen and legitimate the political and social order by giving concrete evidence that it rewards talent and effort rather than serving merely as the cultural apparatus of the "ruling classes" to ensure the passage of power and privilege across generations.

In a time of rising expectations among all social strata, nations must provide real opportunities for social mobility to able people from poor and modest origins, and they must do so for social and political reasons as well as for economic growth. In many countries, the armed forces have provided that avenue of mobility, and they have often gained the support of the poor even when other institutions have lost it. But for many reasons higher education is a better instrument for strengthening the legitimacy of a political democracy, and, where it performs that vital function, as it has in the United States, it goes unrecorded on the accounting sheets of the cost/benefits analyst.

5. Another large benefit of American higher education, still to be achieved, still tentative, is the effect of current efforts by American colleges and universities to come to the aid of secondary education in other

ways than through teacher training and the production of educational research in schools and departments of education. The many reports and books on public secondary education that have appeared since 1983 (e.g., National Commission on Excellence in Education, 1983; Boyer, 1983; Goodlad, 1983) have led to the creation of a large number of programs by colleges and universities that establish new links between higher and secondary education. Some of those programs are designed to strengthen the academic and college preparatory work of the high schools, not just provide remediation for ill-prepared students after they reach college (Trow, 1985b). It may be that the task is too large even for American higher education, and that the structural characteristics of American high schools will defeat all efforts to overcome their "bias against excellence" (Clark, 1985, p. 391). But it will not be for want of trying: already hundreds of programs have been developed by colleges and universities that aim to correct or ameliorate deficiencies in the schools.

Some results can already be seen in individual schools, but the larger effects will be long delayed, and obscured by many other inputs and forces. My point here is not so much to demonstrate an achieved effect as to illustrate the continuing propensity of American higher education to respond to national needs of almost every kind, and to try to provide some service, some program, to meet those needs.

Conclusion

I have chosen to look to the past and to the present to assess some of the characteristics of this unique system of colleges and universities that may shape the future. It is futile to make specific predictions--they all fail in a few years, even in societies that manage their systems of higher education more closely than we do. But my review of the central characteristics of American higher education leads me to believe that it is well-equipped to

survive major changes in the society, and to respond creatively to almost any developments, short of a catastrophe. The strength of our system lies precisely in its diversity, which will allow it to respond to different needs and demands on different segments of the system. Over the past forty years, enrollments have grown from about 2.3 million to 12.5 million, and along with this enormous growth there has been further diversification and democratization of access. By the end of World War II, and perhaps much earlier, we had a system that had the capacity to grow by a factor of five without any fundamental change in its structure or functions, a system able to provide access to a broad spectrum of American society while still providing education of the highest standard for a small fraction of our youth, and research at an equally high standard in the broadest range of scholarly and scientific disciplines.

What besides this massive growth has changed significantly in American higher education over the past forty years?

First, the federal government has become a major source of support, both for university-based research and through student aid. Yet it still supplies less than a quarter of all support for American higher education. Moreover, the government's influence on the system has been further muted, precisely because that support has gone to individual scientists and students rather than directly to the institutions. Of course, the federal government has become a major actor in shaping the agenda of American science. And yet science still retains a large measure of autonomy to pursue problems and issues that arise internally, rather than at the initiative of the government.

As the fifty states have increased their support for the public sector of higher education, they have demanded greater accountability from the colleges and universities for the use of these funds. And not long ago these demands

for accountability by public authorities were seen as the forerunners of a dangerous shift of authority and initiative away from the state colleges and universities to the state houses and governors' offices (Trow, 1975). Relations between public universities and state authorities vary too much for any easy generalization, yet my sense is that public authorities and university leaders in many states have been coming to a more reasoned and mutually acceptable relationship than was seen as possible or likely even ten years ago (Newman, 1987).

Higher education has expanded its relationships with industry in many ways. On the one hand, business firms provide very large and growing amounts of education and training at all levels of skill and sophistication, including degree-granting programs (Eurich, 1985). On the other hand, universities have provided the ideas and professional staffs for new science-based industries, and are at the center of their physical clusterings from Boston to Silicon Valley. They also provide an organizational model and style of work for many other institutions, from consulting firms and industrial labs to legislative committees (Muir, 1982). Moreover, community colleges enroll increasing numbers of students who already hold a bachelor's degree but want further training in another specialty--new patterns of continuing education and professional development.

Certainly the democratization of the student body has meant more mature, part-time, and working students; these kinds of students in fact have confounded the predictions of enrollment decline after 1979. There seems no limit to this development: American higher education, or at least a large segment of it, seems ready and eager to provide some useful educational service to all of these non-traditional students. And we have no reason to believe that this will be less true in the future, as more and more of our labor force comes to work in industries whose very survival is predicated on rapid change,

new skills and new ways of thinking.

All of this suggests that American higher education will be an even more important institution in this society in the decades to come: as a supplier of more advanced skills as well as a source of greater social equality, continuing social commentary and criticism, and the transmission of an ever-broadening cultural heritage. Higher education is today, I believe, the key institution in American society, the source of many of its most important ideas, values, skills and energies. That will be true, and increasingly true, as far ahead as anyone can see.

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