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Curriculum Recommendations for Public Management Education in Computing: An Update

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In 1983 the National Association of Schools of Public Affairs and Administration (NASPAA) formed an ad hoc committee to make recommendations regarding the need and level of computer instruction necessary for a sound education in public management in the 1980s. The committee recommended that computers and information systems should be recognized as a sixth skill/knowledge area within NASPAA's Curriculum Guidelines with implications for new courses and for the teaching of existing courses in the concentrations. Since the fall of 1988 all graduate programs in public management are explicitly expected by NASPAA to include management training in "information systems, including computer literacy and applications." During the next few years, NASPAA's Peer Review Committee, the site visit teams, and programs wishing to be accredited will grapple with the meaning of "computer literacy" and "computer applications." Using data from a 1988 study of computer utilization by managers and staff in U.S. cities, this article discusses the level of training in computers and information systems that needs to be offered in public management programs and the implications for coursework and faculty.

Background

In its 1985 report to NASPAA, the ad hoc committee on computers in public management education argued that public policy, public administration, and public affairs programs should initiate new courses and changes to their existing courses to incorporate computer literacy into the education of public managers. The committee made two principal observations, as follows: (1) the only computer-

related training commonly offered then was in the basic manipulation of statistical packages such as SPSS and SAS; and (2) computer related courses were said to be needed in the public management curriculum; the option of sending students to business or other schools was termed untenable, given the rationale behind separate Master of Business Administration (MBA) and Master of Public Administration (MPA) programs. The following recommendations were made: (1) all students should be required to have a course in computing appreciation as a prerequisite to graduate education in public management; (2) all MPA students should be required to take a course on computer applications for management so as to apply computing capabilities productively; (3) some schools should offer an information-management concentration; and (4) computer skills and knowledge should be integrated into other basic public management courses, such as accounting, finance, budgeting, and personnel. In sum, the committee recommended that computers and information systems should be recognized as a sixth skill/knowledge area.¹

It has been nearly four years since the NASPAA report was submitted, and computer technology has not slowed its rapid integration into the work world. The use of computers in government has increased tenfold since the mid-1970s.^[2] Since 1980 governmental use of computers has accelerated sharply due to the proliferation of microcomputers. Today the federal government, all 50 states, and virtually all city and county governments utilize computers. Governments are not just using computers, but they are using them for more and more tasks. For example, local governments use computers for 450 different com-

Government managers and staff are using computers extensively. Moreover, they feel that computers and computer-based information are key to their own productivity and that of their organizations. However, managers and their staffs are not well trained to use computers, and they may not be getting as much out of computers as they could. Consequently and as directed by the new National Association of Schools of Public Affairs and Administration (NASPAA) guidelines, more attention needs to be given to computer literacy and applications in public-management educational programs. This study, based on a 1988 study of computing in 46 cities in the United States, fills in some details of what types of knowledge and skills should be offered.

puter applications such as paying employees, sending utility bills, analyzing demographic data, routing vehicles, and allocating manpower.³ On average, each city has about 80 such applications operational. Moreover, computers are used to maintain hundreds of different types of records. In effect, the use of computers and computer-based information has permeated every department and most positions in city hall.

Consequently, in this update based on a 1988 study of computer use in 46 leading edge cities in the United States, it is demonstrated that the old NASPAA Committee recommendations still hold and that the implementation of those recommendations may be more viable today than was thought four years ago. As a result of survey data and fieldwork in 46 cities, some new needs are also disclosed that should be factored into implementation of computer literacy for public managers.

Methods and Data

The method here is derived from the basic URBIS design in 1975.^[4] Technologically advanced cities and computer users within those cities are selected as predictors of where the majority of cities and employees will be in the future. Thus, while the 1988 sample is biased towards more technically advanced cities and towards those city employees who use computers and information systems, the design has a distinct advantage for the purpose of this analysis. The authors, like the NASPAA

Committee earlier, are interested in education needs relevant to the future. The advanced cities and their computer users provide insights relevant to future educational needs of managers, staff analysts, and professionals.

Data for this article was collected as part of a study called URBIS II, conducted by the Public Policy Research Organization of the University of California, Irvine, and supported by a grant from the National Science Foundation. During 1987 and 1988 a study team collected data from end users of computers and information systems in 46 cities. The cities were chosen based on a stratified random sample design that was first used in the earlier URBIS study. The 46 cities reflect the diversity, although not proportionately, of U.S. cities in terms of population, region, and current state of information technology practices (see Appendix).

An average of 100 respondents per city, 4,940 total, completed and returned anonymous questionnaires on computing use, roughly an 80 percent response rate.⁵ The respondents represent policy makers, department managers, staff professionals (e.g., policy analysts, planners, budget and personnel analysts, engineers), street-level workers (e.g., police, welfare and public health workers, building inspectors), counter-top workers (e.g., collection clerks, dispatchers, building and planning and zoning "counter" clerks), and desk-top workers (e.g., clerical, bookkeepers).

Findings About Computer Use

No city department or staff role is spared from the diffusion of computers. In fact, 84% of managers responding

**Table 1
Managers' Involvement with
Computers by Department
(in Percentages)**

	Percentage Involvement	
	Minor or None*	Major
Overall	16%	84%
By Functional Department		
Library Department	4	96
Personnel Department	6	94
Finance Department	7	93
Assessor	7	93
Budget Department	8	92
Traffic Department	8	92
Utilities Department	8	92
Treasury Department	9	91
Police	14	86
Central Garage	16	84
Community Development Department	17	83
Public Works Department	21	79
Planning Department	22	78
Building Department	25	75
Public Health Department	25	75
Parks and Recreation Department	25	75
Fire Department	28	72
Public Welfare	28	72

*The minor and none categories have been combined for simplicity and because the percentage reporting no involvement was very small.

**Table 2
Departmental Staff Involvement
with Computers by Role
(in percentages)**

	Percentage Involvement	
	Minor or None*	Major
Overall	15%	85%
By Roles:		
Detectives	7	93
Accountants, Departmental Bookkeepers	7	93
Police, Fire, Emergency Dispatchers	7	93
Patrol Officers	9	91
Residential Property Appraisers	9	91
Fleet Service and Parts Managers	17	83
Demographers, Statisticians, Planners, Economists, Budget Analysts, Personnel Analysts, Parks and Recreation Services Analysts, Fire and Police Data Analysts, Manpower Allocation Analysts	19	81
Engineers, Traffic Engineers	27	73
Inspectors: Health, Housing and Code Enforcement	36	64
Health, Welfare, and Senior Service Caseworkers	37	63

*The minor and none categories have been combined for simplicity and because the percentage reporting no involvement was very small.

Table 3
Frequency of Computer Tasks Performed
(in Percentages)

	Percentage Often ^a					
	City Manager (N=77)	Department Head (N=507)	Division Head (N=534)	Staff Professional ^a (N=904)	Street Level Worker ^b (N=1195)	Managers w/ some Graduate Work ^c (N=666)
Data Entry, Maintenance, or Retrieval:						
Code or enter data	21	28	44	<i>55^d</i>	29	30
Construct or update computer files	18	21	37	45	14	25
Search for or retrieve records	38	46	67	68	74	50
Programming:						
Program computers or maintain software	1	6	12	19	4	9
Data Analysis:						
Compute Statistics	7	13	13	16	5	12
Perform financial calculations	18	25	25	30	3	24
Perform engineering calculations	1	3	5	7	1	4
Design, analyze, or plan graphics	8	10	12	16	2	12
Develop schedules for manpower, operations, or projects	10	10	12	10	3	10
Office Support:						
Process text: memos, letters, and reports	55	38	47	56	22	44
Use electronic mail	40	20	16	15	6	23

^a "Often" represents that the respondent did the computer task "daily," "a few times a week," or "a few times a month." Other use would be "a few times a year" or "never." The categories were collapsed in this way for two reasons. First the focus was with capturing whether a computer task was a constantly recurring part of one's job performance. Whether one does a computer task daily or weekly is not the key, rather such repetitive use indicates that the computer task is a common part of one's job. Second, we analyzed use prior to the collapsing of the categories, and patterns of similar use, e.g. daily use, are not masked by the combining of categories.

- a. Includes policy analysts, planners, budget and personnel analysts, engineers.
- b. Includes police, welfare and public health workers, building inspectors.
- c. Includes city managers and department and division heads.
- d. All computer tasks which were performed by a majority of the job grouping are italicized.

and 85% of staff respondents indicate that their work involves major interaction with computers (see Tables 1 and 2). In terms of frequency of use, major involvement (with computers or computer-based information in one's job) is reported by these respondents as "often" (19%) or "very often" (66%).

While computers are almost everywhere, the depth of their penetration in city hall shows some variability. The core administrative departments (finance, budget, personnel) and revenue related departments (e.g., treasury, assessment, utilities, traffic) are almost totally involved with computers (all over 90% in Table 1). These departments have been automated the longest and continue to receive high priority for automation because of fiscal constraints in cities. They are also easy to automate due to the essentially record keeping nature of these departments. Record-keeping was and is the driving force of computerization in local government.

To illustrate, consider how managers and their staffs use computers. The most common computer tasks performed are first, searching for or retrieving records; second, coding or entering data; third, processing text, and fourth, constructing or updating computer files (see Table 3). These can be quite simple computer tasks, mainly dealing with record-keeping or word processing. More

sophisticated types of tasks, such as programming or data analysis, are much less commonly performed (see Table 3). What is particularly striking is how rarely city staffs use computers for data analysis. This finding is ironic given that the only common computer-related training in MPA programs nationwide when studied in 1980 and in 1985 was the manipulation of statistical packages that involve sophisticated techniques of data analysis.⁶

These findings need to be put in perspective in order to understand their implications for public management education. First, are the types of positions for which students are prepared in MPA programs major users of computers? Although somewhat simplified, it is probably safe to say that most programs prepare their students to be general managers, staff analysts, or functional area professionals, in such activities as health services, public safety, public works, transportation, and housing. Given this profile, the answer to the above question is yes. General managers and managers of city departments see themselves as major users (see Table 1) as do all types of staff analysts and professionals, e.g., caseworkers, planners, engineers, detectives (see Table 2).

Second, what does the pattern of computer tasks reveal about the way computing education needs to be presented in MPA programs? It appears that sophisticated and spe-

cialized computer tasks, such as programming and data analysis are rare (see Table 3). They do tend to be performed a little more often if one has some graduate training⁷ and if one has more recent graduate training.⁸ Also, employees with graduate training are slightly more likely to use the computer for word processing.⁹ As might be expected, data entry tasks are not significantly related to educational level or to when the last professional course was taken.

Given the rare use of and rare need for programming skills (which was defined merely as "programming" and not broken down into types) by most public managers, it seems reasonable to confine these skills to specialized courses outside of the core requirements, ones designed to train public systems analysts. Sophisticated data analysis skills beyond those taught in the core for all MPA students should be confined to courses in a concentration preparing students to be, for example, financial or policy analysts.

At the same time, basic record-keeping, record-searching, and word-processing tasks are so common across positions and are normally so low in sophistication that they should be assumed to be parts of most courses including the core requirements. Some schools/courses may include these tasks through direct student computer use, while other schools/classes need only incorporate the computerization assumption and knowledge in class assignments. The point here is not that MPA programs need to teach basic, easy computing skills, but rather that MPA programs should train their students to think and act in the real public sector environment which presumes computerization; therefore, basic computing skills should be part of MPA programs. As one reviewer nicely put it: "Tomorrow's workers will need to be as at ease and competent with computing as the average person is with driving. Just as a driver must be familiar with vehicle operation, routine maintenance, laws and driving courtesy, so tomorrow's worker will need to be familiar with a similar 'how to' of computers."

Importance of Computers to Work

Clearly, computers now permeate city hall. Apparently every department and most positions have found a function for computers. Still, computer use tends to be confined to record keeping or word processing, and these tasks are being performed as typical parts of employees' work.

Common but fairly simple use of the computer or computer-related information does not necessarily mean it is key to the quality of one's work performance and therefore particularly relevant to programs that train public servants. While it may not be key in theory, it is key in practice according to survey respondents. For example, computer use makes them more effective (70%), saves them time (74%), allows them to do more (57%), increases their job enjoyment (68%), increases their sense of accomplishment (68%), makes their jobs more interesting (69%), increases their professional images (54%), and increases their utility to the organization (60%).

These positive evaluations indicate that the use of computers is perceived as important to the quality of work performance. A third of these respondents indicate that computer-based information is important in doing their job "nearly all the time" with another third indicating "sometimes" and a final third indicating this is "occasionally" true. If computers are that important, it also makes sense that workers have become dependent on them for doing their jobs. Half of these respondents say that they are "very or totally" dependent and a quarter say that they are "somewhat" dependent on computing for doing their jobs.

The preceding findings strongly suggest that computers have totally changed the work world; public employees' performance is intimately linked and positively affected by computers. Yet, this story does not seem to square with the minimal role that computer-related training has tended to play in the graduate education of public management students. Perhaps the simple tasks for which most people use the computer are so easy to learn or are taught so well on-the-job that computer knowledge and skills do not need to be a part of professional degree programs. These questions are addressed next.

Computer Training

Sixty-two percent of respondents reported that the computer application they use most frequently was easy to learn, and 72 percent said it was easy to use. This is great news for software makers and managers. However, these respondents already have learned the applications, and most use them weekly. Thus, initial positive reactions to these percentages need to be tempered. The average number of hours spent in formal training was 22 and in self-training was 54, although half of staff and managers devoted far fewer hours (median 5 on formal and 16 on self-training). These data suggest that most public employees do not need much training. However, other data and fieldwork seriously challenge that conclusion.

Over half of the respondents (52%) rated their formal training as "too little" in amount, a third (36%) rated it as only "fair" in quality, and a fifth (26%) said it was "very low" in quality. Moreover, over a third (38%) of respondents think they still have a poor understanding of what computers can do. Highlighting this point are personal interviews from years of fieldwork, which indicate that most managers and staff use only about ten percent of the capabilities provided by their applications, mainly because they have never gotten beyond the basics in their training.¹⁰ So while formal training and self-training allow one to function with a computer at some basic level (although a fourth of the managers must ask for help with the computer at least every week), one is not trained to use the software to anywhere near its capabilities. For instance, when a new application is brought in, there is a flurry of training. Afterwards there is no additional training although new versions of the software are adopted. Moreover, new software packages that do the same tasks are marketed and even may be adopted by another department in a city, but there is no discussion or attempt to edu-

cate the first department about the new features in competitive software.

These findings indicate job performance in cities depends on computers, yet formal computer training is too short, too sporadic, and too poor in quality. Importantly, the training allows employees to use computers, but computers are not used to their fullest capabilities due to lack of ongoing training. Clearly, a need exists for high-level computer training by graduate programs in public policy, public administration, and public affairs.

Future Computer Use

Respondents in this research work for cities that tend to be highly automated. Comparison of the automation in these cities in 1987-1988 and in 1975-1976 reveals overwhelming diffusion and penetration of computers throughout all operations of local government. In 1976 the cities studied averaged 47 applications; by 1988 they averaged 122 applications. This trend is likely to continue. First, computers are becoming less expensive and more versatile, and therefore they are more affordable and useful. There has been a tenfold increase in city users since 1975 and a tenfold increase of microcomputers from 1980 to 1985.^[11] Second, 41 percent of these cities' chief executives and 44 percent of the council members believe that proportionally more of their cities' budgets should be devoted to the use of computers and data processing. They found the funds during the fiscal crunch of the 1970s, so it seems likely they will be able to continue expanding the computer budget. Third, among staff and managers sampled, 95% want to use computers more in their jobs, and 84% see computers greatly improving their jobs. Finally, on average these cities plan to automate 57 additional applications within two years, so commitments have already been made.

In sum, the scenario is for further automation of the work world given the continuing strong support for automation by staff, managers, and those who have the final say over budgets. Thus, conclusions may be drawn with confidence from the 1988 data to serve as a yardstick to prepare future students for public sector service.

Conclusion

Computers and computer-based information permeate nearly all city departments and staff positions. Recognition of computers and information systems as a management skill by NASPAA reflects its extensive use. Such recognition is critical for redirecting the resources of graduate programs and courses to focus on the fundamental importance of this area.

At minimum, all MPA students should be required to take a course in computing fundamentals as a prerequisite to graduate education in public management.¹² Students should learn the concepts associated with the computer world, be made aware of the uses and problems associated with computers, and have hands-on experience with com-

puters. Note that this course is designated as a prerequisite, and therefore it could be a course available at a local community college or one in another department or school. Given the current variety of skill and knowledge levels of students and faculty, the need and content of such a course will vary significantly.

In addition to a course in computing fundamentals, all MPA students should be required to take a course on computer applications for management.¹³ This course needs to focus on record searching, both in terms of design and retrieval. Record searching is the most common computer task but also one which can vary from simple fact retrieval by a traffic ticket counter clerk to a more complex search such as one done by planners and detectives.¹⁴ Once people know how to manage the data and move it around, they also will more likely do analysis. Therefore, use of sophisticated data analysis techniques will increase if public employees know how to manipulate the many data bases now available inside and outside government agencies.

The faculty respondents in Kiel's 1985 survey of public management programs also chose the above two courses as their top choices of courses to be required of all masters students.¹⁵ Moreover, only 16 percent of the respondents in that study were of the opinion that no specialized course on computerization should be required.¹⁶

In addition to the above two computer courses, computer use and information systems knowledge needs to be integrated into most courses in the curriculum. Moreover, the specific applications relevant to planners, financial analysts, and other specialists need to be taught as part of the regular courses in these concentrations. And as of 1985 half of 98 MPA programs studied by Kiel already integrate computer training into 3 to 14 courses in the curriculum.¹⁷ So good progress is being made in this regard.

Finally, many schools should offer a specific information-management concentration. Such a Management Information Systems (MIS) program would train public systems analysts (professionals trained in data management and analysis) who would be expected to become project team leaders, functional area data processing managers, and/or information resource managers.¹⁸ The public administrator's unique role is that of managing computing as a resource in a public agency. The function is resource management; the arena is information technology or computing. To prepare students to work in the information age, MPA programs should educate and train students to be able to incorporate computers into the work of the public agency. That includes, but is not limited to, the following: conducting technology assessments; conducting needs assessments; purchasing computer equipment, applications, and systems; overseeing the implementation of computer equipment, applications, and systems; conducting technology impact studies; and solving computer-related management problems. Some courses in this information-management concentration can be taken in the business school. But eventually MPA programs will need to have their own courses just as business programs do. This need will stem both from the increase

in student demand, from the rationale behind the two separate degree programs, and from value differences in these programs.

The need is now growing for such public systems analysts, but it presently is of interest to only a subset of public managers, MPA programs, and even public employers. The permeation of computing in government is generating the need for such analysts. In the near future government use of computing will demand the creation of such positions in many departments. The professional training of public managers should parallel that demand.

From the standpoint of implementation, the integration of computer use in courses by public administration faculty is crucial. It is especially important given the limitations that resources can pose to the viability of these recommendations. While one increasingly cannot do government work without the aid of computers and computer-based information, one's interaction with computers is normally at the basic level of word processing or record keeping. Thus, a modest level of awareness and skill in computing is all that is required for most faculty to integrate computer use into their courses. Still, those who teach policy analysis courses need to know and be able to teach statistical applications. The same is true for those who teach planning, finance, and personnel courses. In other words, if one teaches in a specialized concentration, one needs to know the application(s) relevant to that area. That is not an extreme expectation. In fact, these data indicate that the NASPAA Ad Hoc Committee may have worried too much about the lack of faculty training in

computers and information systems. Except for schools developing a concentration in MIS, the level of computing knowledge suggested here is not high. But it is a giant step from no knowledge.

In sum, MPA graduates should have a full appreciation of how the pieces fit together. Public administrators need skills to address the relations between technology and organization and the impact of computing on both the organization and workers. This responsibility of providing context for the elements of computer-related work, policy and organization, parallels the responsibility of MPA programs to assist students to see how the pieces of governance fit together. Schools and students might try to ignore information technology or compartmentalize it, but they do so at the peril of becoming unresponsive, uncompetitive, and perhaps nonaccredited.

* * *

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Alana Northrop is a Professor of Political Science at California State University, Fullerton. Her most recent research has been in the areas of information systems, organizational assessment, and the responsiveness and effectiveness of the federal bureaucracy.

Notes

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1. An abridged version of the report of the NASPAA Ad Hoc Committee on Computers in Public Management Education appeared in a special issue of the *Public Administration Review*, vol. 46 (November 1986), pp. 595-602. The working subcommittee, which was responsible for researching and writing the report, included: Kenneth L. Kraemer, Chair (University of California, Irvine); Thomas Bergin (American University); Stuart Bretschneider (Syracuse University); George Duncan (Carnegie-Mellon University); Thomas Foss (The Florida State University); Wilpen Gorr (Ohio State University); Alana Northrop (California State University, Fullerton); Barry Rubin (Indiana University); and Naomi Bailin Wish (Seton Hall University).
2. See Kenneth L. Kraemer, John Leslie King, Debora E. Dunkle, Joseph P. Lane, and Joey F. George, *The Future of Information Systems in Local Government* (Irvine, CA.: Public Policy Research Organization, University of California, Irvine, 1986), pp. 24-25. For example, the number of municipal employees who have access to computers through terminals has increased ten times from 1975 to 1985. The number of microcomputers have increased ten times from 1980 to 1985.
3. Based on fieldwork, an application questionnaire was designed in 1975 listing some 300 different computer applications. New fieldwork in 1985 led to expansion of the 1987 application questionnaire's listing to 450.
4. See Alana Northrop, William Dutton, and Kenneth L. Kraemer,

5. "The Management of Computer Applications in Local Government," *Public Administration Review*, vol. 42 (May/June 1982), pp. 234-243. For more detail see Kenneth L. Kraemer, William H. Dutton, and Alana Northrop, *The Management of Information Systems* (New York: Columbia University Press, 1981).
6. There is no exact response rate because questionnaires were allotted to cities first by their size (160 for cities 100,000 or larger in population and 130 for smaller cities), and second by the number of department heads and relevant computer users in certain positions which varied by city. Thus response rate based on sheer allocation by size is a conservative 71 percent. Given that some cities had, for example, fewer department managers and division heads, their relevant sample size would actually be less than 160 or 130, whichever was the initial questionnaire allotment. The sampling frame can also only be computed roughly. The total number of computer users in each city is minimally equal to the number of computer terminals and microcomputers given that several workers can share a terminal or microcomputer. The sample size represents approximately one quarter the total number of terminals and microcomputers. Put another way, the sample size has a confidence interval of $\pm 1.5\%$ with a confidence level of 99%. These sampling errors are only strictly relevant when the theoretical population is all computer users rather than cities.
6. See Wilpen L. Gorr, "Innovations in the Teaching of Quantitative Methods in Masters Program for Public Service. A NASPAA Mellon Project Report," (Columbus: Ohio State University, Working Paper, 1982); and James D. Sorg and Edward B. Laverty, "The Computer and Graduate Instruction in Public Administration and Public Affairs Curricula: A National Survey" (Orono: University

- of Maine, Working Paper, 1981) and L. Douglas Kiel, "Information Systems Education in Masters Programs in Public Affairs and Administration," *Public Administration Review*, vol. 46 (Special Issue 1986), pp. 590-594.
7. Statistically significant gammas ranging from .14 to .26. The different gammas are based on correlating for each each group in Table 3—the relationship between computer task as listed in the table with whether respondents reported any graduate or professional school education beyond a bachelor's degree.
 8. Statistically significant gammas ranging from .14 to .22. Recency ranged from taking a professional course within the last year to more than five years ago.
 9. Statistically significant gamma of .15.
 10. Of course, some people rarely need more than ten percent of the capabilities provided, but most do and most feel strongly about the lack of greater in-depth knowledge and skill.
 11. Kraemer, King, Dunkle, Lane, George, *op. cit.*, p. 24-25.
 12. See Kenneth L. Kraemer, Thomas Bergin, Stuart Bretschneider, George Duncan, Thomas Foss, Wilpen Gorr, Alana Northrop, Barry Rubin, Naomi Bailin Wish, "Curriculum Recommendations for Public Management Education in Computing: The Final Report of the NASPAA Ad Hoc Committee on Computers in Public Management Education," *Social Science Microcomputer Review*, vol. 4 (Spring 1986), pp. 1-37. This report contains course descriptions, bibliographies, and instructional notes.
 13. *Idem.*
 14. See James N. Danziger and Kenneth L. Kraemer, "Computerized Data-Based Systems and Productivity Among Professional Workers: The Case of Detectives," *Public Administration Review*, vol. 45 (January/February 1985), pp. 196-209.
 15. See Kiel, *op. cit.*, p. 592.
 16. *Idem.*
 17. *Idem.*
 18. See Kraemer, Bergin, Bretschneider, Duncan, Foss, Garr, Northrop, Rubin, Wish, *op. cit.*

Appendix Populations of Cities in the URBIS Study

City	Population	City	Population
Albany	101,727	Milwaukee	636,212
Atlanta	425,022	New Orleans	557,515
Austin	345,496	New Rochelle	70,794
Baltimore	786,775	Newton	83,622
Bellevue	73,903	Oshkosh	49,620
Bloomington	81,831	Patterson	137,970
Boulder	76,685	Philadelphia	1,688,210
Brockton	95,172	Phoenix	789,704
Burbank	84,625	Portsmouth	104,577
Charlotte	314,447	Provo	74,108
Chesapeake	114,486	Quincy	84,743
Cleveland	573,822	Richardson	72,496
Costa Mesa	82,562	Riverside	170,876
Evansville	130,486	Sacramento	275,741
Ft. Lauderdale	153,279	San Francisco	678,974
Grand Rapids	181,843	San Jose	629,442
Hampton	122,617	Seattle	493,846
Kansas City	448,159	Spokane	171,300
Lancaster	54,725	St. Louis	453,000
Las Vegas	165,000	Stockton	149,779
Lincoln	171,932	Tampa	271,523
Long Beach	361,334	Warren, MI	161,134
Miami Beach	96,298	Warren, OH	56,629