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A SURVEY OF COMPUTER UTILIZATION IN
CITIES AND COUNTIES IN THE EAST
CENTRAL FLORIDA REGION

BY

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B.A., University of Central Florida, 1980

RESEARCH REPORT

Submitted in partial fulfillment of the requirements
for the Master of Public Administration degree
in the Graduate Studies Program of the College of Arts and Sciences
University of Central Florida
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I

INTRODUCTION

INTRODUCTION

The intent of this paper is to examine the extent to which computer technology has been adopted by local governments in the East Central Florida Region.

The East Central Florida Region, comprising Brevard, Orange, Osceola, Seminole, and Volusia Counties, is expected to grow by at least 309,000 residents between 1981 and 1986.¹ These new residents will create a need for new roads, schools, and sewers, plus impact on all the other services provided by local governments. The influx of new residents is anticipated. The challenge - will local governments be prepared to evaluate the impact and manage the growth. Will the policy-makers and managers have available the data, compiled and analyzed, that is a prerequisite to informed decision-making. In meeting the challenge there is one tool that can be of value to local governments - the computer.

The use of computer technology in local government is widely accepted. There is evidence that computers can cost-effectively perform routine information processing tasks, particularly in the finance related functions.² There are computer applications that are capable of forecasting the fiscal impacts of urban development, but only the largest

¹Jack Snyder, "Central Florida Growth Explosive," The Orlando Sentinel 3 April 1983, pp. E-1.

²Roy W. Shin, "Computer Utilization in Public Budgeting and Financial Management: Education Needs," Southern Review of Public Administration, January 1982, pp. 339.

units of government can afford to use them.

Though new and sophisticated technology is developed it is not readily adopted by local governments. In a recent article John Leslie King stated:

It is only the leading-edge, innovative local governments, which are usually the largest, wealthiest, most professional, and most technologically advanced governments that adopt within 10 years.³

When computer technology is introduced into local governments it is primarily the conventional applications that are adopted and not the innovative or advanced technologies.⁴

The study reported in this paper was directed toward ascertaining the extent to which local governments in the East Central Florida Region have adopted computer technology. The study attempts to determine:

1. The number of local governments utilizing computers.
2. Whether or not the local governments own their computers.
3. Under what department's supervision the computer is placed.
4. The number of functional areas in which computer applications were utilized.
5. Whether the computer system is centralized or decentralized.
6. If the local governments have a written Management Information System Plan.

³John Leslie King, "Local Government Use of Information Technology: The Next Decade," Public Administration Review, January/February 1982, p. 25.

⁴Alana Northrop, William H. Dutton, and Kenneth L. Kraemer, "The Management of Computer Applications in Local Government," Public Administration Review, May/June 1982, p. 238.

This study does not attempt to determine the degree of sophistication of computer technology utilization, just the extent of utilization. Nor, is it an attempt to compare the state and degree of computer technology usage in the East Central Florida Region with the results of similar studies investigating computer utilization in local governments.

This study differs from other studies investigating the use of computer technology in local governments in that it is limited to a specific geographical region.

PROBLEM STATEMENT

The problem is to ascertain the extent of computer utilization by local governments in the East Central Florida Region. Collateral to the problem are questions involving computer ownership, computer location, computer supervision, computer applications, and management information system plans.

HYPOTHESES

The following hypotheses have been generated with respect to cities and counties located in the East Central Florida Region:

1. The majority of the cities and counties in the region serving populations of 10,000, or greater, utilize computers.
2. The majority of the cities and counties in the region utilizing computers own or are purchasing a computer.
3. The majority of cities and counties in the region utilizing computers, assign supervision of the computer to the finance department.
4. The majority of cities and counties in the region utilizing computers have centralized their computer system.
5. The majority of cities and counties in the region have a formally developed and written Management Information System Plan.

(Null Hypothesis) The majority of cities and counties in the region do not have a formally developed and written Management Information System Plan.

6. The majority of cities and counties in the region using computers utilize them for record keeping functions.

DEFINITION OF TERMS

Utilize Computers - is interpreted to mean any city or county that owns, lease, lease-purchases, rents, or time-shares a computer and utilizes or has the potential to utilize it to support a functional area.

Centralized - in relationship to computer systems is interpreted here to mean any arrangement where there is one or more computers located in one area, with CRT's either in the same area or located in remote areas.

Management Information System Plan - is interpreted to mean any plan or document that identifies goals and policies, priorities, implementation, application, scheduling, or equipment procurement, as a means of managing the use of computer technology in local government.

Computer Functions/Applications - these terms are used interchangeably to mean any task that can be performed on a computer.

Functional Area - is interpreted as any area where computer functions/applications can be applied.

II

REVIEW OF THE LITERATURE

REVIEW OF THE LITERATURE

The current literature is replete with articles on computers, hardware, software and management information systems. The computer and its application in the public sector has generated a great deal of information and guidelines on how to plan, procure, and implement computer technology in local government. It is now accepted that computers and new technologies have a role in local government management. Before the acceptance, which is now taken for granted, there was inquiry into extending computers into local governments. In a preface to a monograph published in 1967, and edited by Stephen B. Sweeney and James C. Charlesworth, they wrote:

Now we are in an age of technocracy. It is therefore meet that all of us who are interested in the adequacy of the government of our urban society should inquire into the wisdom of extending the use of computers and related devices in our city halls.⁵

In 1967 data processing was primarily done by batch-processing, there were only a few computers capable of providing real-time service to users. In his article, "The City and the Computer Revolution", John G. Kemeny wrote, "that a second revolution had started within the computer revolution and that the new computers would be able to provide simultaneous and immediate computer service to a large number of users". He called this stage, "the coming of time-sharing". Kemeny said,

⁵Stephen B. Sweeney and James C. Charlesworth, Ed., Governing Urban Society: New Scientific Approaches (Philadelphia: American Academy of Political and Social Science, 1967), p. vii.

"Time-sharing is a new way of using high-speed computers. Its Principal aims are to put computer services at the finger-tips of large numbers of users, with easy, and almost instantaneous service available." ⁶

Remembering, that Kemeny's article was written before the technological advances that lead to the development of the mini- and micro-computers he described a development stage which he called, "a computer in every home". He based this stage on the prediction that within a generation (by 1990) there would be a hugh public utility, combining modern communications media with a network of computers. This is the way Kemeny described the city of 1990:

I see the city of 1990 as a gigantic depository of information, as a major node in the computer-communications network, and as a source of education and entertainment. Tens of millions living in surrounding small towns will have continual access to these services by means of computers, television, and video-phones.⁷

Kemeny's prediction that there would be a hugh public utility computer-communications network by 1990 remains a possibility. With the wide-spread use of home computers, video games, and a spreading network of cable-television, such a public utility is not as futuristic as it was in 1967. The use of computer time-sharing has not developed to the degree Kemeny anticipated, however, if the technological advances in computer design had not occurred, he may well have been correct in his assumptions.

⁶Ibid., p. 55.

⁷Ibid., p. 62.

About education, Kemeny made the following statement about preparing future generations to utilize computers:

Computers will not have a significant effect on our city governments until our colleges bring up a new generation of graduates who take high-speed computers for granted. . . . When some of these students filter into our municipal governments, we can look forward to a revolution in city planning.⁸

Contrast the above statement with the recent writing of John Leslie King. The following quote is taken from his article, "Local Government Use of Information Technology: The Next Decade", published in 1982:

One remarkable aspect of information technology infrastructure for local government has been the nearly complete lack of educational support for information technology in the public administration profession. Not a single major public administration program offers a strong concentration in computing and data processing, for example. Most such training has been left to business schools, computer science departments, and trade schools specializing in training of computer programmers. . . . This regrettable oversight on the part of the public administration education community will probably continue for some time, although there are signs of awakening in some places.⁹

Computers have an increasing role in public budgeting and financial management, however the area is not broadly represented in programs of public administration. Roy W. Shin reported, "a study by the Social Sciences Research Institute of the University of Maine found that 54 of 119 MPA programs in the USA reported use of computer-based instruction in courses in Public Budgeting and Financial Management as

⁸ Ibid., p. 54.

⁹ John Leslie King, p. 33.

as a regular part of their public administration curriculum".¹⁰ There is a gap between the responsibilities and education of many public administrators and managers.

The fifteen year time span between Kemeny's and the articles by King and Shin could lead one to conclude that the often cited time lag, of 10 to 15 years, between the development of new technologies and their introduction into local government, could also be applied to educational institutions in regards to curriculum changes.

The need for public administrators to be trained in the use of computer technology was indentified fifteen years ago, however that need has not been fulfilled to date. The result of which has been to place many public administrators at a disadvantage when faced with implementing computer technology. In his article, "Five Principles for Successful Computer System Implementation", Rhett D. Harrell, documents the experience of one central Florida city:

In late 1971, officials in a small, rapidly growing central Florida city decided to follow the lead of other U. S. cities by abandoning a manual billing system in favor of a computerized system. The city implemented a suitable computer system, but it took four years, three different systems and many costly mistakes.¹¹

The failure of the above city could be blamed entirely on poor planning and development, but surely the lack of trained personnel was a factor. With and understanding of computer technology and its

¹⁰Roy W. Shin, p. 343.

¹¹Rhett D. Harrell, "Five Principles for Successful Computer System Implementation", Government Finance, September 1981, p. 19.

uses and the utilization of systemic planning as suggested by Harrell, mistakes can be minimized. Harrell's article published in 1981, is representative of a good body of literature addressing how to implement computers and management information systems.

In 1974, the book "Integrated Municipal Information Systems: The Use of the Computer in Local Government" was published under the joint authorship of Kenneth L. Kraemer, William H. Mitchel, Myron E. Weiner, and O.E. Dial, it was a primer on municipal information systems. This book was developed under a grant for the federal government's Urban Information Systems Inter-Agency Committee (USAC).¹² The authors introduce the acronym "IMIS", for Intergrated Municipal Information System.¹³ The elements of IMIS are people, computer equipment and programs, an automated data base, and institutional procedures. An IMIS is designed to collect, store, update and facilitate the automated use of data on a continuing basis.¹⁴ Kraemer, et al, address the planning, development and administration of an IMIS. They stated the utilization of computer technology to support municipal automation was becoming a necessity for two basic reasons:

1. In this and coming decades, resources will be re-relatively more limited in comparison to demands for their use. Per capita resource expenditure for municipal service delivery will require a disproportionately greater increase in the level of productivity.

¹²Kenneth L. Kraemer, William H, Mitchel, Myron E. Weiner, and O.E. Dial, Integrated Municipal Information Systems: The Use of the Computer in Local Government (New York: Praeger Publishers Inc., 1974) p. 1.

¹³Ibid, P. 33.

¹⁴Ibid, p. 36.

2. The complexity and rapidity of changes in society requires a more responsive, comprehensive action and reaction on the part of the municipalities.¹⁵

They reported that a USAC-sponsored "state of the art" study of 79 cities and the ICMA 1970 survey of 868 cities over 25,000 population supported the following generalizations, "approximately 70 percent and more of U.S. cities above 50,000 population presently are using computers in some fashion", and "no city possesses a comprehensive and intergrated municipalwide information system".¹⁶

The authors discuss the present research and development efforts of the federal government and USAC project cities to improve local government use of computer technology. They combined prior research and experience into an intergrated approach which was completely new, with the intent of improving local governments use of computer technology.¹⁷

The problems involved in the introduction of computer technology in local government are not limited to hardware and software selection. Nor should interests be limited to counting the number of computers in use and the degree of sophistication in which technology is utilized in local governments. The introduction of computer technology impacts on many areas.

¹⁵Ibid, p. 21.

¹⁶Ibid, p. 61.

¹⁷Ibid, p. 82.

In his book, "Computers and Bureaucratic Reform". Kenneth C. Laudon investigates the role of advanced information technology in the reform of four state and local government bureaucracies. This study looks at the two consequences of the redistribution of information; 1) the level of centralization, and 2) the resistance to reform. The research also looks at the implications of information technology for the origination and administration of new social policies.¹⁸ Laudon addresses the questions, "How does social structure shape the use of information technology?". And, "What social and political values intervene between the development of a technology and its widespread use?"¹⁹

His study began in 1968 with the review of plans and system designs of approximately fifty information systems, he was particularly interested in centralized, administrative information systems. Four systems were selected for study and a clinical approach was adopted.²⁰ Laudon concludes:

If the activities of government are divided among operational activities of line personnel, management control activities, and strategic planning, our research shows that the principle contribution of computers in local governments has been to collect, store, and process information useful in the day-to-day operations of line personnel; in some limited cases, management control has been improved. On these grounds alone, the enormous computer-related expenditure of wealth and manpower by local governments may be justified.²¹

¹⁸Kenneth C. Laudon, Computers and Bureaucratic Reform, (New York: John Wiley and Sons, Inc., 1974), p. ix.

¹⁹Ibid, p. 5.

²⁰Ibid, p. 14.

²¹Ibid, p. 301.

The lack of hardware/software and the absence of a coherent theory of information may be overcome. Yet the impact of the computer has been limited for a yet more fundamental reason: the lack of political commitment to social policy change. Neither the bureaucratic nor the professional groups who vied for control of the computer in local governments were committed to securing far-reaching changes in public policy.²²

The issues Laudon raises are not the same ones that would be raised by a city manager in a local government faced with the task of procuring a computer and implementing a management information system.

All of the foregoing serves to provide various opinions, insights and projections against which we can compare the present state of computer technology in local government. The following information is also intended to provide comparative data and findings which are more directly related to local government.

In 1977, Kenneth L. Kraemer and John Leslie King published a two volume work on Computers and Local Government in which they summarize the findings and conclusions of a study called "Evaluation of Policy-Related Research in Municipal Information Systems (EPRIS). EPRIS was supported by a grant from the National Science Foundation and was carried out by the Urban Information Systems Research Group of the Policy Organization at the University of California, Irvine, in 1974 and 1975.²³

Volume 1, A Manager's Guide was written specifically for local governments. The book is based upon empirical research and expert opinion, rather than simply on the knowledge of the authors. The book was intended

²²Ibid, p. 304.

²³Kenneth L. Kraemer and John Leslie King, Computers and Local Government: Volume 1, A Manager's Guide, (New York: Praeger Publishers, Inc., 1977), p. viii.

to provide up-to-date information about computers and information systems local government.²⁴

Kraemer and King in looking at the current use of computers in local government reported:

More than half of all U.S cities and counties over 10,000 population use computers in one way or another. The extent of computer use among local governments is directly related to size of local governments as measured by population. Nearly all the largest local governments have adopted computers whereas the smallest local governments are still in the process of adopting the technology.²⁵

They also reported that 75% of local governments with populations over 100,000, had computers. The small governments 10,000 to 25,000 had a computer use rate of approximately 50%.²⁶

Two other topics that Kraemer and King addressed are of particular interest since they are constantly debated, they are, 1) the location of computing services within the organization, and 2) centralization vs. decentralization of computing.

In regards to computer location they found that initially most local governments located computing services in the finance department. Since the easily automated functions, financial and accounting tasks were first applied to computers, the logical location was in the finance department. They contend the locating of the computing function in the finance

²⁴Ibid, p. 1.

²⁵Ibid, p. 23.

²⁶Ibid, p. 23.

department may have a stifling effect on the use and development of technology by other departments. Kraemer and King contend that, "Location of computing services should be decided on the grounds of meeting the organization's need for information, and not simply out of convenience".²⁷

Where to locate the computing function in local government was the topic addressed by Regina L. Glenn in a 1981 article. She wrote, "despite well-intended efforts, however, the problem of placing data processing is as pertinent and perplexing today as it was 10 years ago".²⁸

The issue of where to locate the computer function will remain, however, the initial location will probably be within the finance department.

Looking at the question of centralization vs. decentralization of computing, Kraemer and King list the arguments for centralization as being, better top management control, cost savings due to economies of scale, and efficiency from consolidation of personnel and hardware resources. Claims for decentralization are better service to users, greater flexibility, and costs that are about the same as centralized computers. The argument to support centralization based on the claim that hardware is expensive is no longer valid. Drastic changes in technology has reduced the cost of hardware, and the introduction of

²⁷Ibid, p. 34.

²⁸Regina L. Glenn, "Data Processing: Where Does It Belong?" Governmental Finance, September 1981, p. 41.

minicomputers makes decentralization a reasonable option.²⁹ Kramer and King conclude:

Centralization vs. decentralization of computing is a complex problem. Ultimately, the decision to centralize or decentralize computing must be made according to the kind of computing the organization does, the organizational structure of the government, and the management style of the governmental management.³⁰

In his article "Information Systems Technology in the 1990s", June 1982. George Finnegan quotes John Leslie King as say, "a key issue for the '90s will be whether government systems should centralize or decentralize."³¹ King elaborated on the centralization/decentralization issue in his article, "Local Government Use of Information Technology". He stated, "the advent of minicomputer and microprocessors will start a major new debate over whether to centralize or decentralize." The issue in local governments is not the cost, but who controls the information technology. Pressure to decentralize will grow as new, smaller computers are introduced. The one problem with decentralization where departments have autonomy is that they may procure equipment that is not compatible with other local government equipment.³² In the absence of a Management Information System Plan, and a

²⁹Kenneth L. Kraemer and John Leslie King, Volume 1, p. 29.

³⁰Ibid, p. 35.

³¹George Finnegan, "Information Systems Technology in the 1990s", Governmental Finance, June 1982, p. 37.

³²John Leslie King, p. 30.

coordinated review of procurement requests, the possibility of purchasing incompatible equipment exists. The existence of incompatible equipment within a local government limits the future use and transfer of information.

Kraemer and King in Computers and Local Government, Volume 2, A Review of the Research reported:

There is a trend toward centralization of management of EDP in the municipal environment. Watlington (1970a) found that 51 percent of the cities over 25,000 population responding to his survey reported centralized ADP organizations. While this figure did not reach the 75 percent level predicted in the 1968 survey, it was an increase over the 1968 levels.³³

Finally, Kraemer and King conclude that there is no empirical evidence to support either centralization or decentralization.³⁴

The most extensive review of research related to the use of information systems and computers in local government is provided by Kraemer and King in Volume 2. In this work they identified 60 works for assessment pertaining to policies for managing and organizing information services. From the 60 works they selected 23 for formal review and 13 were chosen as "key works", worthy of study.

This study was conducted by URBIS, and was undertaken to accomplish three objectives:

1. To summarize, in one place, the major research-based

³³Kenneth L. Kraemer and John Leslie King, Ed., Computers and Local Government, Volume 2, A Review of the Research (New York: Praeger Publishers Inc., 1977) p. 33.

³⁴Ibid, P. 33.

knowledge available in the field of computers in local government operations.

2. To provide research-based policy guidance to local government policy-makers and managers on the subject of computing and information systems.

3. To identify major areas of future research needs.³⁵

This volume provides a thorough introduction to the research knowledge in the field of computer use in local governments before 1972. See Appendix A, the "key works" as identified by Kraemer and King, for a ready reference to the research they summarized.

The Urban Information Systems Survey (URBIS) provided data for a number of scholarly works. The survey was conducted in 1975. Questionnaires were sent to all cities with populations of 50,000 or more and all counties with populations of 100,000 or more. The purpose of the survey was to gather information on all facets of computing in local government. One of the areas of inquiry was computer applications in local governments.

James L. Perry and Kenneth L. Kraemer in Technological Innovation in American Governments, indicate that in local government there are potentially 300 different generic computer applications in 27 different government functions. In city and county governments with populations over 10,000 they average about 19 different applications, with a range from 4 applications on the average for small governments to an average of 50 for the largest governments. More than half of the governments

³⁵Ibid, p. 2.

surveyed reported having applications in accounting, revenue collection and utilities.³⁶ Perry and Kraemer reported:

The current sophistication of computer applications varies widely in local governments. Kraemer, et al, (1975a) identify six categories of computer applications and report the percent of use in each category for all cities and counties surveyed as:³⁷

1. Record Keeping	42%
2. Calculating/Printing	35%
3. Record Searching	8%
4. Record Restructing	6%
5. Sophisticated Analytic	5%
6. Process Control	3%

These categories vary on a continuum from relatively simple tasks to more complex simulation and control tasks, and serve to illustrate the wide qualitative diversity of computer applications in use.³⁸

Perry and Kraemer, in the future expect to see an increase in the sophistication and number of applications used by local governments.

In 1982, Alana Northrop, William H. Dutton, and Kenneth L. Kraemer, in "The Management of Computer Applications in Local Government", begin their article by stating that, "computing has become a general purpose tool for American local governments". This opening phrase leads into their assessment of the current state of computer performance in local governments. They stated, "the performance of computer technology in American local governments has been disappointing." "Time and again,

³⁶James L. Perry and Kenneth L. Kraemer, Technological Innovation in Local Governments/The Case of Computing (New York: Pergamon Press, Inc., 1979) p. 3.

³⁷Ibid, p. 3.

³⁸Ibid, p. 3.

research has indicated many of the expected benefits of computing are not being realized by most local governments."³⁹ Using survey data from 42 cities, they argue that a mix of reform and post-reform approaches to computer implementation results in better managed systems. Northrop, et al, found that well managed computers have real payoffs for government operations, but unfortunately, computer technology is not well managed in most cities. Consequently, computers often generate problems and the payoffs often fall short of expectations. From their study they conclude:

. . . . One key to the computer's successful management lies in the policies used for the implementation of computing. This study concludes that the single most important policy influencing the success of computing is a commitment to advance computer technology. Specifically, the more advanced the technology, the greater the payoffs from the computer's application. Other policies, such as user involvement and decentralization of computing, are important too, but currently they appear to have secondary importance in comparison with the state of the technology's development.⁴⁰

Northrop, et al, allude to the necessity for local governments to have policies regarding the implementation of computing and a corresponding commitment to computer technology as being major factors on which successful implementation of computer applications may rest. The following brief review of current articles serves to illustrate that there is a body of literature addressing the computer implementation/procurement process, and that there are local governments that have been successful in adopting computer technology.

³⁹Alana Northrop, et al, p. 234.

⁴⁰Ibid, p. 234.

Rhett D. Harrell offers a set of planning and development principles in his article, "Five Principles for Successful Computer System Implementation."⁴¹ In "Systems Development for Small Governments", Charles R. Litecky and Earl R. Wilson address how a small governmental unit should approach systems acquisition and recommend a five stage process. Their computer acquisition approach is based upon a research project that developed a comprehensive guide for small government computer acquisition.⁴² The village of Downers Grove, Illinois, successfully adopted microcomputers and a before and after assessment is presented in, "Microcomputers in Local Government", by James R. Griesemer.⁴³

As this review of the literature began with inquiry and predictions of the impact of computer technology made in 1967, it seems fitting to conclude this review with some recent observations on the future impact of technology.

"Make no mistake about it; the 1980s will be the decade of the computer revolution in government", this was the opening sentence in a recent article published in "American City and County".⁴⁴

Dr. Ronald T. LaConte in his article, "Learning Skills for the Emerging Technology", Makes the following observations:

⁴¹Rhett D. Harrell, p. 16.

⁴²Charles R. Litecky and Earl R. Wilson, "Systems Development for Small Governments", Government Finance. September 1981, p. 11.

⁴³James R. Griesemer, "Microcomputers in Local Government", Public Management, December 1982, p. 10.

⁴⁴"Computer Electronics: The Major Tool of Modern Public", American City and County, January 1982, p. 44.

Currently, we may be experiencing the beginning of a technologically impelled social and economic shift that will make all previous changes pale by comparison.

If a society can be described according to what its people do for a living (and to me this seems the only valid criterion), the label "Information Society" is no misnomer for 1982 American.⁴⁵

Telematics is introduced by Costis Toregas in his article, "The New Technologies for the Office of the Future", and he describes what it is and its impact on the office as follows:

A true revolution on two major technological fronts has already occurred, and its impact on the office of the modern city and county government will be significant. Computers and telecommunications, spurred by ever decreasing size and cost of microchips, are forming a new dimension called telematics.⁴⁶

What we see is a trend where word processing machines, intelligent computer terminals, and personal computers are becoming almost indistinguishable.⁴⁷

The new office technology has tremendous promise: it can reduce the administrative distance between the information produced, handled, and disseminated in the office and the user of the information, thereby strengthening the function of government.⁴⁸

Summary: This review of the literature is representative of the issues, studies, and empirical research that makes up the body of literature addressing the use of computer technology in local government.

⁴⁵Ronald T. LaConte, "Learning Skills for the Emerging Technology", Public Management, December 1982, p. 2.

⁴⁶Costis Toregas, "The New Technologies for the Office of the Future", Public Management. December 1982, p. 7.

⁴⁷Ibid, p. 8.

⁴⁸Ibid, p. 9.

The review is intended to be representative - not exhaustive.

The review of the current research did not reveal any studies that were limited in scope to ascertaining the degree of computer technology utilization in a specific geographical region.

III

METHODS AND PROCEDURES

METHODS AND PROCEDURES

The population under study consists of city and county governmental units in a five-county region of East Central Florida. The East Central Florida region is defined as the geographical area encompassing Brevard, Orange, Osceola, Seminole, and Volusia counties.

The sampling frame is comprised of fifty-one (51) city and five (5) county governments located within the East Central Florida region. The sampling method was purposive as the population under study was limited to city and county governments in a specific geographical area. The survey was limited to governmental units serving populations over fifty (50), this restriction excluded two (2) governmental units with populations of 18 and 20 residents, respectively.

A questionnaire (Appendix, B) was used to gather the data. The survey questionnaire was mailed to fifty-four (54) governmental units, forty-nine (49) cities, and five (5) counties. The survey consisted of a single mailing of a four (4) page questionnaire, with a stamped, self-addressed return envelope. A telephone follow-up was done, which resulted in a second mailing of questionnaires to units that had not received or misplaced the first mailing.

The data was processed and analyzed to determine the frequency distribution using the Statistical Package for the Social Sciences (SPSS).

IV

PRESENTATION OF THE DATA

PRESENTATION OF THE DATA

The data presented in this report was extracted and compiled from thirty-three (33) questionnaires returned in response to a survey of fifty-four (54) local governmental units in the East Central Florida region. The response rate was 59.1% for the cities, and 100% for the counties. The overall survey response rate was 61.1%. All of the local governmental units serving populations of 25,000 and over in the region responded to the survey. See table 1, for a compilation of local governmental units surveyed, and who returned questionnaires by population group.

TABLE 1

DISTRIBUTION BY POPULATION GROUP OF
CITIES AND COUNTIES SURVEYED

Population Group	Number of Questionnaires Mailed		Total	Number of Questionnaires Returned
	Cities	Counties		
100,000 +	1	4	5	5
50,000 - 99,999	1	1	2	2
25,000 - 49,999	2	-	2	2
10,000 - 24,999	17	-	17	13
5,000 - 9,999	10	-	10	5
50 - 4,999	18	-	18	6
Total	49	5	54	33

Source: Compiled by Author

Survey return rates: Overall 61.1%

Counties 100.00%

Cities 57.1%

Hypothesis 1: The majority of the cities and counties in the region serving populations of 10,000, or greater, utilize computers.

The data reveals that of the thirty-three (33) units of government responding to the survey, twenty-six (26), or 78.8% acknowledge using computers, twenty-one (21) of the cities, and the five counties used computers, for a 75% and 100% utilization rate respectively. The cities and counties were grouped by population to determine the percent of units using computers in relationship to size of population served. The data revealed nine (9) governmental units serving populations of 25,000, or greater, and all (100%) utilized computers. In the region surveyed, there are only four (4) cities and five (5) counties in the above category and all were represented in the sample. In the 10,000 to 24,999 population group there were seventeen (17) cities surveyed, thirteen (13) responded, and eleven (11) acknowledge using computers for a usage rate of 84.6%. (See table 2)

The data revealed 60% of the cities in population group 5,000 - 9,999, and 50% of the cities in population group 50 - 4,999 use computers. However, in these two groups the survey response was poor with only 5 of 10, and 6 of 18, returning the questionnaire.

TABLE 2

CITY AND COUNTY COMPUTER UTILIZATION DISTRIBUTION BY POPULATION GROUP

N = 33

Population Group	Number in Sample		Total	Number Using Computers	Computer Utilization (Percent)	
	Cities	Counties				
100,000 +	1	4	5	5	100.0	
50,000 - 99,999	1	1	2	2	100.0	
25,000 - 49,999	2	-	2	2	100.0	
10,000 - 24,999	13	-	13	11	84.6	
5,000 - 9,999	5	-	5	3	60.0	
50 - 4,999	6	-	6	3	50.0	
Total	28	5	33	26		

Source: Compiled by author

Percentage of respondents utilizing computers:

Cities - 75.0

Counties - 100.0

The overall rate of computer utilization by cities and counties is 78.8%.

Hypothesis 2. The majority of the cities and counties in the region utilizing computers own or are purchasing a computer.

The survey inquired as to whether the cities or counties, owned, leased, lease-purchased, or time-shared a computer. The data revealed that 58.8% of the cities/counties that use computers own them. The second largest group 38.5% are lease-purchasing their computer. One (1) city is leasing its computer. And, one (1) city is time-sharing, with no in-house computer. (See table 3)

TABLE 3

If you utilize computers please indicate whether or not you:

- () Own
- () Lease
- () Lease-Purchase
- () Time-Share
- () Other

N = 33

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
OWN	1.	14	42.4	53.8	53.8
LEASE	2.	1	3.0	3.8	57.7
LEASE-PURCHASE	3.	10	30.3	38.5	96.2
TIME-SHARE	4.	1	3.0	3.8	100.0
	0.	<u>7</u>	<u>21.2</u>	<u>MISSING</u>	<u>100.0</u>
	TOTAL	33	100.0	100.0	
VALID CASES 26		MISSING CASES 7			

Source: Compiled by author

Hypothesis 3: The majority of cities and counties in the region utilizing computers, assign supervision of the computer to the finance department.

To the question, "Under what department's supervision is your prime computer function located?", 46.2% of the cities/counties assigned supervision to the Finance Department. The data revealed that twelve (12) of the twenty-six (26), cities/counties sited the finance department as having supervision of the computer.

Five (5) other respondents had their finance department combined with another department or service, i.e., Administration-Finance, and Water-Finance, these types of arrangements were combined for data processing into Admin-Water-Finance, and represented 19.2% of the valid cases.

Of the remaining nine (9) cities/counties, seven (7) different departments are cited: Central Services (1), Computer Services (1), Data Processing (2), Information Center (1), Utility (1), County Administrator (1), and Management Services (2). (See table 4)

TABLE 4

Under what department's supervision is your prime computer function located?

N = 33

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
CENTRAL SERVICES	1.	1	3.0	3.8	3.8
COMPUTER SERVICES	2.	1	3.0	3.8	7.7
DATA PROCESSING	3.	2	6.1	7.7	15.4
INFORMATION CENTER	4.	1	3.0	3.8	19.2
FINANCE	5.	12	36.4	46.2	65.4
UTILITY	6.	1	3.0	3.8	69.2
COUNTY ADMINISTRATOR	7.	1	3.0	3.8	73.1
MANAGEMENT SERVICES	8.	2	6.1	7.7	80.8
ADMIN-WATER-FINANCE	9.	5	15.2	19.2	100.0
	0.	7	21.2	MISSING	100.0
	TOTAL	<u>33</u>	<u>100.0</u>	<u>100.0</u>	
VALID CASES	26	MISSING CASES	7		

Source: Compiled by author

Hypothesis 4: The majority of cities and counties in the region utilizing computers have centralized their computer system.

The cities and counties were ask to select from five (5) statements describing computer arrangements in order to ascertain whether or not their computer function was centralized. Of the five statements to select from, two of the statements are interpreted to mean the computer system is centralized. The two statements are; 1), computer and input terminals centralized in one location, and 2), computer in one location with a decentralized network of input terminals.

The data revealed that nine (9) cities/counties, or 34.6%, selected the first statement as being representative of their computer arrangement. The second statement was selected by fourteen (14), or 53.8%, of the respondents. Since both of the statements represent centralized computer systems, when combined, 34.6% plus 53.8% reveals that 88.4% of the cities/counties have centralized computer systems. Of the three other descriptive statements each was selected by one city/county. (See table 5)

TABLE 5

Indicate which of the statements below best describes your computer system:

- () Computer and input terminals centralized in one location.
- () Computer in one location with a decentralized network of input terminals
- () Multiple independent computers.
- () Multiple computers and input terminals joined together in a system.
- () In-house computer interfaced with an external computer service.

N = 33

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
CENTRALIZED	1.	9	27.3	34.6	34.6
DECENTRALIZED	2.	14	42.4	53.8	88.5
INDEPENDENT	3.	1	3.0	3.8	92.3
SYSTEM	4.	1	3.0	3.8	96.2
INTERFACED	5.	1	3.0	3.8	100.0
	0.	7	21.2	MISSING	100.0
	TOTAL	33	100.0	100.0	
VALID CASES	26	MISSING CASES 7			

Source: Compiled by author

Hypothesis 5: The majority of cities and counties in the region have a formally developed and written management information system plan.

The data revealed that of the thirty-three (33) cities/counties responding to the question of whether or not their units have a written Management Information System Plan, twenty-nine (29), or 90.6%, replied no. Only three (3) respondents, 9.1%, have a written Management Information System Plan. (See table 6)

The survey revealed a lack of Management Information System Plans in cities and counties in the East Central Florida region, however, that does not mean that the need for a plan has not been recognized. In another survey question ascertaining the degree of support a program designed to assist local governments in formulating a Management Information System Plan would receive, nineteen (19) of the respondents (57.6%) felt they would benefit, greatly, and eleven (11), or (33.3%) selected benefit, somewhat. (See table 7)

TABLE 6

Does your unit of government have a written Management Information System Plan?					
N = 33					
CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
YES	1.	3	9.1	9.4	9.4
NO	1.	29	87.9	90.6	100.0
	0.	<u>1</u>	<u>3.0</u>	<u>MISSING</u>	100.00
	TOTAL	<u>33</u>	<u>100.0</u>	<u>100.0</u>	
VALID CASES 32		MISSING CASES 1			

Source: Compiled by author

TABLE 7

Develop a program to assist local governments in formulating a Management Information System Plan					
N = 33					
CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
NO BENEFIT	1.	2	6.1	6.3	6.3
BENEFIT, SOMEWHAT	2.	11	33.3	34.4	40.6
BENEFIT, GREATLY	3.	19	57.6	59.4	100.0
	0.	1	3.0	MISSING	100.0
	TOTAL	33	100.0	100.0	
VALID CASES 32		MISSING CASES 1			

Source: Compiled by author

Hypothesis 6: The majority of cities and counties in the region using computers, utilize them for record keeping functions.

The data reveals that the cities/counties are utilizing computers in twenty-six (26) different functional areas. The largest utilization is in personnel/payroll with twenty-five (25) of the twenty-six (26) respondents having application in this area. In descending order of occurrence cities/counties reported applications in, utility billing (20), accounts payable (19), budget preparation (19), purchasing (14), capital asset maintenance (14), and inventory control (10). These represent the most frequently cited areas where computers are utilized, and the functions performed are record keeping functions.

Only seven (7) record keeping functions were listed here, however, they account for 121 of the 186 total computer functions reported by the cities and counties. Based on these figures, 65% of the computer applications are performing record keeping functions. Table 8, provides a list of the twenty-six functional areas and the number of cities/counties with computer applications in those areas.

In an attempt to determine if any of the cities and counties were using computers to perform sophisticated analytics they were asked if they utilized either of the following fiscal impact models, Municipal Impact Evaluation Systems Model (MUNIES), or, Fiscal Impact Analysis System (FIAS). Of the twenty-five (25) valid response to both questions only one city acknowledged using FIAS, no unit was using MUNIES. (See table 9).

TABLE 8

Indicate by placing an "X" in the appropriate boxes the functional areas in which computers are currently utilized.

N = 26

Functional Area	Number Indicating Use	Functional Area	Number Indicating Use
Personnel/Payroll	25	Traffic Engineering	4
Utility Billing	20	Planning and Zoning	3
Accounts Payable	19	Building Permits	3
Budget Preparation	19	Tax Collection	2
Purchasing	14	Voter Registration	2
Capital Asset Maintenance	14	Property Appraiser	2
Fleet Maintenance	11	Traffic Citations	1
Inventory Control	10	Land Use Information	1
Police	9	Jury Selection	1
Fire	6	Cases in Process	1
Dispatch, Emergency Vehicles	6	Bond Accounting	1
Revenue Forecasting	5	Ambulance Billing	1
Occupational License	5	Fixed Asset Inventory	1

Source: Compiled by author

Total functional areas identified - 26

TABLE 9

Do you utilize the following fiscal impact models developed for computers?

N = 33

Municipal Impact Evaluation Systems Model (MUNIES)

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
NO	2.	25	75.8	100.0	100.0
	0.	8	24.2	MISSING	100.0
	TOTAL	33	100.0	100.0	
VALID CASES 25		MISSING CASES 8			

Fiscal Impact Analysis System (FIAS)

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (PERCENT)
YES	1.	1	3.0	4.0	4.0
NO	2.	24	72.7	96.0	100.0
	0.	8	24.2	MISSING	100.0
	TOTAL	33	100.0	100.0	
VALID CASES 25		MISSING CASES 8			

Source: Compiled by author

The average number of computer functions for the five (5) cities and counties serving populations over 100,000 is 11.6. The range of this group was from nine (9) to fifteen (15) applications. The population group 10,000 to 24,999 with the largest sample, eleven (11) cities, had an average of 5.8 application. This group range was from two (2) to nine (9) applications. The range of all population groups was from 4.3 to 11.6 applications, see table 10. The total number of computer functions being utilized by the cities and counties was 186, this translated into an average of 7.1 applications per unit. Only five (5) cities, and one (1) county reported less than five (5) computer applications being utilized.

TABLE 10

COMPUTER FUNCTIONS/APPLICATIONS BY POPULATION GROUP

N = 26

Population Group	Number in Sample	Computer Functions/ Applications (Total)	Computer Functions/ Applications (Mean)
100,000 +	5	58	11.6
50,000 - 99,999	2	14	7.0
25,000 - 49,999	2	19	9.5
10,000 - 24,999	11	64	5.8
5,000 - 9,999	3	18	6.0
50 - 4,999	3	13	4.3

Source: Compiled by author

CONCLUSIONS

CONCLUSIONS

The data supports the first hypothesis that the majority of cities and counties serving populations over 10,000 in the East Central Florida Region utilize computers. Of the twenty-six (26) local government units in this category, twenty-two (22) responded to the survey and twenty (20) utilize computers. Looking only at the rate of computer utilization based on the survey respondents reveals that 90.9% of the cities and counties utilize computers. If one assumes the non-respondents do not have computers the overall rate of computer utilization in cities and counties with population over 10,000 would be 76.9%.

The second hypothesis states that the majority of cities and counties in the region utilizing computers own or are purchasing them. The data reflects that 58.8% of the cities/counties own their computers, and that 38.5% are lease-purchasing which leads to ownership. The second hypothesis is supported by the data.

Hypothesis three, the majority of the cities and counties utilizing computers, assign supervision of the supervision of the computer to the finance department, is supported by the data. The data revealed 46.2% of the respondents assigned supervision to the finance department. Another, 19.2% of the respondents assigned supervision to departments that are combined with the finance function, such as, Administration-Finance, and Water-Finance. When these two sets of data are combined, the percentage of cities and counties assigning supervision of the

computer function to the finance department is 65.4%. The combined data supports the third hypothesis.

The fourth hypothesis contends the majority of cities and counties in the region utilizing computers have centralized their computer system. The hypothesis is supported by the data in that 88.4% of the responding cities and counties that utilize computers, describe their computer arrangement as centralized.

In regards to the fifth hypothesis, the majority of cities and counties in the region have a formally developed and written Management Information System Plan, the data does not support the hypothesis. The data revealed that only three (3), 9.1%, of the twenty-nine (29) respondents had Management Information System Plans. The Null Hypothesis - the majority of cities and counties in the region do not have formally developed and written Management Information System Plan, is accepted.

Hypothesis six is supported by the data. The majority of cities and counties in the region using computers, utilize them for record keeping functions. The data revealed that the cities/counties utilized computers in twenty-six (26) different functional areas. The functional areas most frequently cited as having computer applications were personnel/payroll, utility billing, accounts payable, budget preparation, purchasing, capital asset maintenance, and inventory control. Applications used in these functional areas are primarily record keeping functions. The above functions accounted for 121 of the 186 total computer functions reported by the cities and counties. Based on the foregoing, 65% of the functions used by the cities and counties are record keeping functions, and this supports the sixth hypothesis.

VI

RECOMMENDATIONS

RECOMMENDATIONS

The findings and conclusions of this study suggest to this researcher some recommendations for future research.

1. A study should be conducted to determine the extent of mini - and micro-computer utilization by local governments in the Central Florida Region.

2. A similar study should be conducted to investigate whether computer utilization in local governments in the East Central Florida Region is greater than in other areas of Florida.

3. A study should be conducted to determine the manner in which local governments select and procure their software applications, and the degree to which the applications meet their specific needs.

4. A study should be conducted to determine the feasibility of sharing software applications as a means of reducing the acquisition costs of local governments introducing or expanding computer use.

APPENDIX A

APPENDIX A

Key Works Concerning Administrative Policy

Author/Title/Date	Sponsorship/Institution Conduct Research	Type of Research	Scope	Major Contribution
Willis, H. L. The Status of ADP in City Government—1965	International City Managers' Association	Municipal mail survey	231 cities	Most cities in their infancy in computer utilization with large cities predominating. Most applications are routine and hardware and personnel costs are nearly equal.
Higginson, M. V. Managing with EDP: A Look at the State of the Art—1965	American Management Association, Inc.	Business mail survey	228 firms	Need for top management direction and control of EDP. EDP department should be equal to other functional departments.
Taylor, J. W. and Dean, N. J. Managing to Manage the Computer—1966	Booz, Allen & Hamilton, Inc.	Business interviews	189 interviews in 33 firms	EDP responsibility is moving from the finance department to an independent department with a top-level executive.
Japan Computer Usage Development Institute Computer Utilization in Japan—1967	Japan Computer Usage Development Institute	Business mail survey	157 Japanese and 250 U.S. firms	Finance or accounting department responsible for computer operations in 18 percent of Japanese firms and 78 percent of U.S. firms.
Dean, N. J. The Computer Comes of Age—1968	Booz, Allen & Hamilton, Inc.	Business mail survey	108 manufacturing firms	More top management involvement in planning of EDP. 97 out of 108 companies had established a top computer executive position.
Diebold Group Summary Report of a Survey on the Cost of Effectiveness of Software and Hardware—1967	Diebold Research Program	Business questionnaire	2,636 executives from 100 firms	In a majority of cases, top management was not active in guiding information system activities. New applications proposed by EDP staff rather than users.
Kraemer, K. L. and Howe, G. Automated Data Processing in Municipal Government: A Survey—1968	International City Managers' Association	Municipal mail survey	419 cities	Municipal usage of ADP is increasing. Larger cities own their own installation while smaller ones use service bureaus. ADP located in the finance department.
Reichenbach, R. R. and Tasso, C. A. Organizing for Data Processing—1968	American Management Association, Inc.	Business interviews	91 interviews from 16 companies	Information systems should be independent of any existing function and report to top management. Participation of top level management will enhance utilization.
McKinsey & Company Unlocking the Computer's Profit Potential—1968	McKinsey & Company	Business interviews	36 companies	Success not correlated to EDP expenditures. In successful companies top management participation was evident and a broader range of computer applications was observed.
Schoderbek, P. P. and Babcock, J. D. The Proper Placement of Computers and Management Involvement in EDP—1969	University of Iowa	Business mail survey	109 firms	EDP departments becoming independent. Users suggesting new applications with a trend away from finance/accounting applications noted.
Watlington, M. A Survey of Municipal Automated Data Processing—1970	International City Management Association	Municipal mail survey	472 cities	Use of ADP by municipalities is increasing with most applications routine in nature. Shift in locating ADP from finance department and the creation of an independent EDP department observed.
Lucas, Jr., H. C. The Integration of Data Processing and the Organization—1970	Doctoral Dissertation at the Massachusetts Institute of Technology	Business questionnaire	846 employees from 6 firms	Quality of service related to attitudes toward the computer and top management support influences attitudes toward the computer.
Powers, R. F. An Empirical Investigation of Selected Hypotheses Related to the Success of Management Information Systems Projects—1971	Doctoral Dissertation at the University of Minnesota	Business questionnaire and interviews	20 MIS projects from 10 firms	Formalized project control system negatively related to project success (user satisfaction).

APPENDIX B

APPENDIX B

I. Obviously we want to structure our center's services to meet the primary needs of government agencies. With this in mind, we have listed below a series of services that may be useful to your organization. Please provide information regarding the extent to which your agency will benefit or not benefit from the proposed services by placing an "X" in the appropriate box.

MANAGEMENT INFORMATION SYSTEMS TECHNICAL ASSISTANCE PROGRAM (MIS)

	NOT BENEFIT	BENEFIT SOMEWHAT	BENEFIT GREATLY
1. Develop a program to assist local governments in formulating a Management Information System Plan.	[]	[]	[]
2. Develop a basic guide (handbook) which can be used by staff and supervising personnel as a basic tool to understanding MIS systems' technology.	[]	[]	[]
3. Develop a program that addresses the application and integration of micro-computer systems and related equipment into an MIS.	[]	[]	[]
4. Conduct on request on-site survey of existing MIS application and equipment.	[]	[]	[]
5. Produce a video tape cassette that explains MIS utilization and technology that can be used in conjunction with the MIS handbook.	[]	[]	[]
6. Develop and organize "team" seminars for small groups of executives and managers to extend their understanding of MIS, hardware and software.	[]	[]	[]

FUTURE STUDIES PROGRAM (STUDY FINDINGS TO BE SHARED WITH LOCAL GOVERNMENTS)

1. Examine and prepare a report on existing impact models and their applicability and usefulness in future planning and development in the Central Florida area.	[]	[]	[]
2. Review and report on the existing data base of government units in the five-county area to determine commonality of data for comparative use and projection.	[]	[]	[]
3. Explore and report on various alternatives for undertaking comprehensive assessments in dealing with problems of local governments in Central Florida, particularly as they are affected by growth.	[]	[]	[]

SEMINARS AND WORKSHOPS FOR ELECTED OFFICIALS, EXECUTIVES AND MIDDLE-MANAGEMENT

1. Develop a symposium addressing the concerns and problems related to elected officials and their relations with the media.	[]	[]	[]
2. Conduct a leadership seminar on technological topics, e.g., information technology packages, microprocessing systems, management information.	[]	[]	[]
3. Conduct a seminar on conflict resolution techniques, e.g., organizational conduct, external conflict, accepting conflict, avoiding and managing conflict.	[]	[]	[]
4. Conduct a seminar on labor relations and performance evaluation, e.g., labor contracts as a tool for standards, performance evaluation and documentation, evaluation standards, avoiding legal problems, rules of the game.	[]	[]	[]
5. Conduct a seminar on administrative communication, e.g., informal and formal systems, miscommunication, silent communication, improving staff communication.	[]	[]	[]

VIDEO CASSETTE TRAINING MODULES

1. Develop a set of video cassette training modules to be used to introduce and orient employees into the complexities of local government.	[]	[]	[]
2. Produce video tapes that can be reproduced and distributed at a low cost to governmental agencies.	[]	[]	[]

II. This section contains questions on MIS, fiscal impact models, and management and staff training as they relate to your unit of government.

1. Does your unit of government have a written Management Information Systems Plan?
☐ Yes ☐ No

2. If you utilize computers please indicate whether or not you:
 (If not applicable, skip to question #9).

☐ Own ☐ Lease-Purchase ☐ Other _____
☐ Lease ☐ Time-Share

3. Indicate which of the statements below best describes your computer system:

☐ Computer and input terminals centralized in one location.
☐ Computer in one location with a decentralized network of input terminals.
☐ Multiple independent computers.
☐ Multiple computers and input terminals joined together in a system.
☐ In-house computer interfaced with an external computer service.

4. Under what department's supervision is your prime computer function located? _____

5. Please identify the manufacturer, model number, and quantity of mainframe computers, mini-computers, and micro-computers currently in use.

Manufacturer	Model Number	Quantity
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. How many, if any, of the following specialists are on your staff:

Computer Programmer _____ Computer Analyst _____ Systems Analyst _____

7. Indicate by placing an "X" in the appropriate boxes the functional areas in which computers are currently utilized:

<input type="checkbox"/> Police	<input type="checkbox"/> Revenue Forecasting	<input type="checkbox"/> Land Use Information
<input type="checkbox"/> Fire	<input type="checkbox"/> Accounts Payable	<input type="checkbox"/> Capital Asset Maintenance
<input type="checkbox"/> Dispatch, emergency vehicles	<input type="checkbox"/> Utility Billing	<input type="checkbox"/> Building Permits
<input type="checkbox"/> Personnel/Payroll	<input type="checkbox"/> Fleet Maintenance	<input type="checkbox"/> Inventory Control
<input type="checkbox"/> Budget Preparation	<input type="checkbox"/> Traffic Engineering	<input type="checkbox"/> Other _____
<input type="checkbox"/> Purchasing	<input type="checkbox"/> Planning & Zoning	

8. Do you utilize the following fiscal impact models developed for computers?

☐ Yes ☐ No Municipal Impact Evaluation Systems Model (MUNIES)
☐ Yes ☐ No Fiscal Impact Analysis System (FIAS)

9. Indicate which of the following types of information processing equipment you have in use by placing an "X" in the appropriate boxes:

<input type="checkbox"/> Electric Typewriters	<input type="checkbox"/> Stand-alone Word Processing Systems
<input type="checkbox"/> Electronic Typewriters	<input type="checkbox"/> Central Word Processor
<input type="checkbox"/> Memory Typewriters	<input type="checkbox"/> Central Optical Character Recognition (OCR) System
<input type="checkbox"/> Intelligent Typewriters	<input type="checkbox"/> Central Dictation System
<input type="checkbox"/> Other _____	

10. Indicate how many hours of orientation a new employee receives (exclude Police & Firemen).

11. Indicate how many hours of formal in-house training are scheduled for personnel each month (exclude Police & Firemen).

12. Indicate by placing an "X" in the appropriate box the frequency in which you utilize the following length forecasts and forecasting methods for projecting revenues and expenditures in the budgetary process.

	<u>Routinely</u>	<u>Occasionally</u>	<u>Rarely</u>	<u>Never</u>
a. Short range forecasts (up to 1 year)	[]	[]	[]	[]
b. Medium range forecasts (1 to 5 years)	[]	[]	[]	[]
c. Long range forecasts (5 years & over)	[]	[]	[]	[]
d. Location Quotient Analysis	[]	[]	[]	[]
e. Shift-Share Analysis	[]	[]	[]	[]
f. Fiscal Impact Models	[]	[]	[]	[]
g. Best Guess or Expert Forecasts	[]	[]	[]	[]
h. Trend Techniques	[]	[]	[]	[]
i. Deterministic Techniques.	[]	[]	[]	[]
j. Econometric Forecasting	[]	[]	[]	[]

13. Listed below are ten (10) subject areas that have been identified for video taping for use in personnel orientation and training. Please indicate the frequency in which you would employ them.

a. Understanding Local Government and Public Administration.	[]	[]	[]	[]
b. Working in the Environment of Local Government.	[]	[]	[]	[]
c. Understand the Organization (line and staff functions, the geography of organization, the public service team and concept of governmental service).	[]	[]	[]	[]
d. The Budgetary Process in Local Government.	[]	[]	[]	[]
e. The Accounting, Auditing, Purchasing and Revenue Functions of Government.	[]	[]	[]	[]
f. Understand Public Personnel (the personnel system, merit systems, evaluation processes).	[]	[]	[]	[]
g. Administrative Responsibility (ethics and values in the public service; the public employee as the image of government; the ethics of information and confidentiality).	[]	[]	[]	[]
h. Communications in Government (report writing, personal communication, projecting a positive attitude, relations with the media and public).	[]	[]	[]	[]
i. Leadership and Supervision (motivation and authority, developing subordinates).	[]	[]	[]	[]
j. Decision Making in the Public Sector	[]	[]	[]	[]

III. This section contains questions seeking general and demographic information about your unit of government.

1. Indicate by placing an "X" in the appropriate box the form of your government:

[] Mayor-Council

[] Council-Manager

[] Commission

[] Other _____

Is the manager's position accredited by the International City Managers Association? [] Yes [] No

2. The approximate total current population served by your unit of government: _____
3. The total proposed operating budget for the current fiscal year: _____
4. The total proposed capital budget for the current fiscal year: _____
5. The total anticipated property tax revenues for the current fiscal year: _____
6. The current property tax rate in mils: Operating _____ Debt Service _____
7. The current number of employees; Full-time _____ Part-time _____
8. The total Bonded Indebtedness (exclude Revenue Certificates): _____

9. The debt service for the current fiscal year: _____
10. Do you have a centralized purchasing system: ☐ Yes ☐ No
11. Do you have any intergovernmental, cooperative, or shared services agreements?
☐ Yes ☐ No (If NO, skip to question #13).
12. Indicate by placing an "X" in the appropriate box, the services in which you have agreements:
- | | | | |
|-------------------------------------|----------------------------------|--|--------------------------------------|
| <input type="checkbox"/> Fire | <input type="checkbox"/> Library | <input type="checkbox"/> Garbage | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Police | <input type="checkbox"/> Water | <input type="checkbox"/> Recreation | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Purchasing | <input type="checkbox"/> Sewage | <input type="checkbox"/> Computer Services | <input type="checkbox"/> Other _____ |
13. Indicate by placing an "X" in the appropriate box those areas in which user fees are charged:
- | | |
|-------------------------------------|--------------------------------------|
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Water | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Sewage | <input type="checkbox"/> None |
| <input type="checkbox"/> Garbage | |

This space is provided for your comments on this questionnaire, and to give you the opportunity to identify program needs and problem areas in which you think the Center for State and Local Government could be of service in future years (provided funding is adequate).

1. _____

2. _____

3. _____

4. _____

5. _____

Please provide the name, position, and telephone number of the person who completed or has primary knowledge of this questionnaire.

NAME	POSITION	PHONE NO.
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This is the end of the questionnaire. The Center for State and Local Government appreciates and thanks you for the time and effort you have put into completing this questionnaire.

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