

**ACCOUNTABLE GOVERNMENT:
USE OF PERFORMANCE MEASUREMENT IN TEXAS CITIES**

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**AN APPLIED RESEARCH PROJECT (POLITICAL SCIENCE 5397) SUBMITTED TO
THE DEPARTMENT OF POLITICAL SCIENCE
SOUTHWEST TEXAS STATE UNIVERSITY
IN PARTIAL FULFILLMENT
FOR THE REQUIREMENTS FOR THE DEGREE OF
MASTERS OF PUBLIC ADMINISTRATION**

(Spring 1996)

FACULTY APPROVAL:

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TABLE OF CONTENTS

Chapter 1	
<i>Introduction and Research Purpose</i>	1
Research Purpose	2
Chapter 2	
<i>Literature Review</i> ,	5
Goals of Performance Measurement	8
Purposes of Performance Measurement	10
History of Performance Measurement In Local Government	11
Criteria For Measurement	18
How Performance is Measured	26
Using the Results of Performance Measurement	35
Assuring Quality Through Performance Measures	37
Conceptual Framework	38
Chapter 3	
<i>Research Setting</i>	42
Legal Structure of Texas City Government	42
General Law Cities	42
Home Rule Cities	43
Council-Manager Form of Government	44
Performance Measurement in Texas Cities	46

Chapter 4	
<i>Methodology</i>	47
Use of Survey Research	47
Use of Document Analysis	50
The Survey Instrument	51
Survey Design and Construction	53
Operationalization of Hypotheses	54
Statistical Methodology	56
Chapter 5	
<i>Results</i>	58
Response Rates	58
Results and Analysis	59
Management Support of Performance Measures	60
Cities Currently Using Performance Measures	62
Barriers To The Use of Performance Measures	62
National Standards As Barriers	67
Implementation Barriers	67
Conceptual Barriers	70
Population As An Indicator of Use of Performance Measures	77
Chapter 6	
<i>Summary and Conclusion</i>	80
Research Summary	80
Conclusion	82

Appendices 84

Appendix A - Performance Measurement Survey 84

Appendix B - Cities Surveyed 88

Appendix C - Survey Responses 89

Bibliography 94

Chapter 1

Introduction and Research Purpose

The business of city government is providing programs and services to its citizens. Those programs and services may include police and fire protection, utilities, parks, airports, or streets. The services that are provided by city government are expected to be well-run and well-maintained by the public officials charged with oversight of these programs and services, and citizens demand quality programs and services at the least possible costs. As public officials attempt to find better ways to evaluate the delivery of municipal programs and services, they are more frequently using performance measurement systems to do so.

David N. Ammons (1995, 13) suggests that there are four basic questions that can be answered by an effective performance measurement system. These include:

- How many?
- How effectively?
- Of what quality?
- To what effect?

With this information, city officials can be better prepared to provide citizens qualitative as well as quantitative data regarding the delivery of municipal programs and services. In addition, by evaluating the strengths and weaknesses of municipal operations, that information can be used to improve those operations.

Municipal government officials are expected to provide efficient, cost-effective services

to their citizens. How well they do so is difficult to determine and anecdotal information is often the most reliable source of data to evaluate performance. Many government officials, seeking ways to provide more objective information about performance, have begun to use performance measures to evaluate the quality of services and programs provided by their organizations.

Texas cities are among those leading the way in performance measurement. Many city managers in the State have implemented performance measurement systems in order to improve the quality of the programs and services in their cities. This study evaluates how widely and how effectively performance measurement is used by Texas city managers and if there is support for national standards (benchmarks) for performance measures.

Research Purpose

The purpose of this research is to describe the attitudes and opinions of Texas city managers regarding the use of performance measures. This study is exploratory/descriptive and will provide insights into barriers that may prevent effective use of performance measurement techniques.

According to Ammons (1995, 15), performance monitoring is relatively new to municipal government. While private business has used performance measures extensively for many years, they are motivated by entirely different factors than government entities. City officials are often confronted with more pressing issues and may allow performance accountability to become a very low priority. Unlike their private sector counterparts, city officials are not concerned with profit or loss or the pressures of competition. Thus, they are more likely to focus on the issues

that attract the most attention rather than devote the time necessary for effective evaluation of performance.

Through the use of performance measures, city officials can determine the quality and effectiveness of the delivery of municipal programs and services. Such systems measure program costs, services delivered, and numbers served. However, beyond these basic elements of measurement, that also evaluate outcomes (Wholey and Hatry, 1992, 605). Their uses can include such things as diagnosis of efficiency and effectiveness of processes, understanding the link between outputs and accomplishments of objectives, communicating with elected officials about needed resources, and accountability to the citizens (Fountain and Roob, 1994, 7).

The Governmental Accounting Standards Board (GASB), The International City/County Management Association (ICMA), and The Innovation Groups (TIG), have all been actively involved in developing performance measures for local governments. How well these measures will be accepted by city management professionals is yet to be determined. The literature on this subject suggests that there may be barriers to effective use of performance measures. This study attempts to determine if city managers are currently using performance measures to evaluate the delivery of municipal programs and services, and to identify relevant barriers to the use of such performance measures. In addition, this study attempts to determine if Texas city managers support the use of performance measures to evaluate municipal programs and services.

While this study is limited in scope to Texas cities, this information will be useful to local government officials throughout the United States. Currently, the organizations developing performance measures are doing so with a national perspective. The Innovation Groups literature suggests that more than 145 jurisdictions have joined this effort and that many existing national

reporting efforts have gone into the development of their program. Similarly, ICMA has put together a national committee representing cities and counties throughout the United States to develop its performance measurement program. How Texas city managers view the use of performance measurement systems will likely have national implications.

The following is a brief description of the chapters that are included in this study. Chapter 2 provides a review of the current literature regarding use of performance measures in municipalities. The goals of performance measurement are discussed, as well as how performance is measured and how the results of performance measurement are used to improve the delivery of municipal programs and services. Chapter 3 discusses the research setting and describes the Council-Manager form of government in Texas. Chapter 4 explains the research methodology, and Chapter 5 presents the results of the study. Chapter 6 provides a summary and conclusion of the Applied Research Project.

Chapter 2

Literature Review

Municipal government has a significant impact on the lives of many individuals. In the United States, most people live in incorporated cities with more than 75 percent of the population living in Standard Metropolitan Statistical Areas (SMSA) (ICMA, 1987, 8).¹ Most of those cities provide basic levels of service, such as police protection, fire protection, street maintenance, water, and wastewater services. Many cities also provide services such as parks, libraries, museums, and airports. The costs of providing these services are often substantial, and in many cases those using the services have no choice in selecting the provider.

How well are cities performing the services they provide to their citizens? There are few quantifiable answers to this question. Comprehensive information on the effectiveness of public services is typically not available. Information on service quality is often received in the form of complaints which may be brought to the attention of public officials through local government offices and perhaps even through the media (Hatry, et al., 1992, 1). In addition, there are very few universally accepted standards for measuring local government performance. Most performance measures typically used by local government officials consist of information such as crime

¹ The U.S. Bureau of the Census characterizes an SMSA as a cluster of heavily settled communities that are geographically, socially, and economically related to one another as well as to a central urban core. A core consists of at least one central city having a population of at least 50,000, or may be twin cities with a combined population of at least 50,000 (ICMA 1987, 8).

reports or fires. There are few national standards associated with any of these (Ammons, 1994, 282). Often reports on effective service delivery of local governments focus on resource expenditures and the quantity of services; however, few cities provide information on the quality and outcomes of programs (Wholey and Hatry, 1992, 604). "Governmental Accounting Standards Board (GASB) researchers examining service efforts and accomplishments reporting among local governments found no evidence of systematic comparisons to technically developed standards or norms (Ammons, 1994, 282)." This chapter reviews the literature concerning outcome and performance measurement and how local governments are implementing performance measurement techniques to improve service delivery. In addition, the conceptual framework used to organize the empirical section of the study is developed.

Citizens are looking to their government leaders for improved performance and lower costs. Citizen surveys have found that Americans believe that as much as 40 percent of public funds are being wasted (Fischer, 1994, 2). Osborne and Gaebler note that since the tax revolt first swept the nation in 1978, the American people have consistently demanded improved performance of municipal government with less money. Yet, during the recession of 1990 and 1991, municipal leaders debated the same old options: fewer services or higher taxes (Osborne and Gaebler, 1992, 2).

One approach to improving service delivery that has emerged in the last decade in local government is the use of outcome and performance measurement. Outcome and performance measurement is an assessment of how well cities are delivering basic services. According to Ammons (1994, 281), performance standards can offer capabilities that comparisons with previous performance or the performance of similar jurisdictions cannot provide. Performance

standards can expose the continuing weakness of a program whose performance has merely improved from abysmal to poor, or of a program that excels only when compared to other weak programs.

Although performance measurement is somewhat new to local government, its development is shaping the way public officials view service delivery. Osborne and Gaebler suggest that public institutions are emerging from the old bureaucratic mind set to new and innovative ways of providing public services. "[Public institutions] are lean, decentralized, and innovative. They are flexible, adaptable, quick to learn new ways when conditions change. They use competition, customer choice, and other nonbureaucratic mechanisms to get things done as creatively and effectively as possible (Osborne and Gaebler, 1992, 2)."

Cities have traditionally viewed performance in terms of efficiency or workload measures that result from inputs (people, facilities, equipment, and supplies) and activities (planning, operations, reporting, and decision making). The focus on service quality and effectiveness measures has resulted in a greater emphasis on output (services and products). Through performance measurement systems, cities have begun to look beyond outputs and are interested in determining outcomes (results, impacts, and consequences) (City of Austin, n.d.).

If local government is to effectively monitor its performance, both quantitative and qualitative information must be made available to managers of local government programs. The task is complex, but clearly achievable. "As complex as government programs may be, there are definite, identifiable, responsibilities associated with them. Similarly, there are measurable

results that can assist in improving management and citizen knowledge of the services being provided (Fountain and Roob, 1994, 6)."

Goals of Performance Measurement

If local government officials are to be accountable for the quality of services provided by cities, they must be equipped to quantify performance. "To measure something--IQ, height or weight, attitude, miles per gallon, personality, an employee's annual performance rating, or whatever--means to quantify it using a defined set of rules (Fischer, 1994,4)." Thus, in order to measure performance, local government managers must reach agreement on what is to be measured. Traditionally, local government managers have been most interested in measuring productivity. "In a nutshell, productivity reflects results as a function of effort (Brinkerhoff and Dressler, 1990, 16)." When productivity improves, it is simply an indication that more results are being produced as a function of the effort put forth. Productivity is thus defined as the ratio of an output of an effort divided by the inputs (labor, energy, and so forth) required to produce that output (Brinkerhoff and Dressler, 1990, 19). Performance monitoring systems include measurements of program costs, services delivered, and numbers served, however, they go beyond these basic elements. Performance monitoring systems also include outcome information (Wholey and Hatry, 1992, 605).

Outcomes have significant impact on the users of the services provided and on the costs of providing those services. Performance measurement, therefore, should focus on the implications of services to customers, not just on physical outputs. Emphasis on customer service is perhaps obvious to local government managers, but its importance may be overlooked

by lower-level employees. "The measures in some instances may seem less directly useful to lower-level supervisors. Sensitizing supervisors to customer concerns can lead to improved services (Hatry, et al., 1992, 3)."

Another relevant implication of performance measurement is its utility in improving services. Local government managers who attempt to provide services that are recognized as the best in the business are constantly looking for ways to improve service delivery.

Success in public management is a product of the interaction of personality and circumstances: the skillful use of many approaches--structural, political, symbolic--to produce movement toward personal goals in specific situations. Executives' beliefs and temperaments define and impart direction to ambiguous reality (Lynn, 1987, 18).

Whenever a service provider is best at its business, it is because it is doing something significant. Performance measurement is used to determine what this "something" is (Fischer, 1994, 4). With accurate information about outcomes of a service, local decision makers should be better able to improve delivery of those services. Wholey and Hatry (1992, 605) suggest that program managers and agency heads can use performance monitoring information to encourage improved program performance, communicate the value or public benefit of programs to elected officials and the public, strengthen the confidence of the public in government, and gain the necessary resources to maintain or enhance program operations.

When measuring the effectiveness of a program or service, it is important to recognize that such programs and services do not operate in a vacuum. The quality of service delivery can have a direct influence on the effectiveness of other programs as well. For example, transportation service can affect outcomes in accessibility to recreation programs and facilities.

Recreation services can have a direct effect on crime, and housing code enforcement agencies can affect outcomes of fire services (Hatry , et al., 1992, 2). Likewise, external factors can affect service delivery. "External factors such as weather conditions and various social conditions can have substantial effects. No single agency is likely to have *complete control* over the effectiveness measures associated with the service it provides (Hatry, et al., 1992, 2)."

Assuring equity of service delivery is another important element of performance measurement. A major use of the collected data by performance measurement systems is to provide information on the effectiveness of services for various population groups in the community in order to evaluate the need for, and equitableness of, public services (Hatry, et al., 1992, 4).

Purposes of Performance Measures

Performance measurement can provide valuable information to elected officials, program managers, and the community. The following are the basic purposes of using performance measurement by local governments:

- local government managers can use them to diagnose the efficiency and effectiveness of the process or activities being used to convert resources into outputs.
- these measures can help managers and others to understand the link between outputs and the accomplishment of objectives as measured by outcomes, while directing attention to areas in which further evaluation is needed.
- measures can be used as a means of communicating with elected officials about the level of resources needed for each service and about which outputs will be successful in achieving the desired objectives.

- performance measures can be important information sources to help the organization communicate its results to citizens, as part of its obligation to be accountable (Fountain and Roob, 1994, 7).

History of Performance Measurement in Local Government

Local government has seen dramatic change in recent years. No longer are communities seen as tight knit, geographically distinct, and self-sufficient. Osborne and Gaebler provide insight into the changing dynamics of cities in *Reinventing Government*. With regard to the current municipal environment, they observe:

We live in an era of breathtaking change. We live in a global marketplace, which puts enormous competitive pressure on our economic institutions. We live in an information society, in which people get access to information almost as fast as their leaders do. We live in a knowledge-based economy, in which educated workers bridle at commands and demand autonomy. We live in an age of niche markets, in which customers have become accustomed to high quality and extensive choice (Osborne and Gaebler, 1992, 15).

Because of this dynamic environment, local government managers should be able to respond quickly to the needs and desires of the community. Wholey and Hatry (1992, 604) maintain that elected officials and citizens are entitled to regular reports on the performance of public programs. That information, according to Wholey and Hatry, should include program costs and the amount of work performed as well as information on the quality of service delivery and on program outcomes. To do so, it is necessary to understand how the organization functions as well as how effectively it functions. Stoner (1995,62) provides some historical insight into how cities have evaluated performance.

Back in the 1930s, performance measures were simple and straightforward. The estimated equivalent of waterborne pollution entering the Ohio River from the 450,000 inhabitants of Cincinnati was 720 dead horses thrown daily into the waterway. Presumably, if the city could get down to a rate of 100 or so horses, the river would no longer be an open sewer.

More scientific methods of measurement are now being used. Determining the number of vehicles moving daily along a given stretch of highway or certain levels of micro-organisms in water, lend themselves to hard numbers and formulas. However, public managers have found that it is not that simple. "Even though sticks and bricks of infrastructure would seem to lend themselves to this more scientific method, most public works departments are finding that real life intervenes (Stoner, 1995, 62)."

In 1971, the National Commission on Productivity produced a report that cited the need for effectiveness data when evaluating local government programs. However, the report noted that no standards existed at the time to do so, and further, that development of such standards was problematic. Hatry and Fisk point out that in most cases, the conceptual problems of what to measure have yet to be resolved and any government attempting to develop performance measures must first wrestle with these problems before attempting to deal with the issue of collecting the data to be used to measure performance. Those jurisdictions that have begun introducing performance measures are finding that more than one measure is needed for effectively measuring any single program or activity (Hatry and Fisk, 1971, 28).

While performance measurement is viewed as a recent development in local government, reporting on efficiency is not new. Productivity measurement has been quantified in the American economy since the 1880s. Since World War II, it has been employed in a variety of

settings, including local government. Its use has accelerated in recent years due to important changes in the national economy. "The recession of the 1970s, the oil embargo, and the strength of foreign competition caused productivity issues to be looked at seriously (Brinkerhoff and Dressler, 1990, 17)."

While assessing the performance of local government programs and services has been employed by local government managers for many years, questions surrounding the measurement of performance is a recent development. Fischer (1994, 2) notes that in 1938, The International City Management Association (ICMA) issued *Measuring Municipal Activities*, which suggested various types of information that local governments might use to monitor local government services and to assess how well those services were being delivered. ICMA has continued to provide guidance to local government managers in evaluating performance. In 1973, ICMA published *Practical Program Evaluation For State And Local Government Officials*, which emphasized outcomes. In the opening remarks, the authors point out that, "...most evaluations focus primarily on inputs and the management process, rather than on whether the program is accomplishing its intended purposes (Hatry, Winnie, and Fisk, 1973, 1)." The book goes on to describe ways local government managers can evaluate services in order to improve outcomes. Some of these methods will be described in subsequent sections of this paper.

Productivity does not guarantee that products or services will be good. The need for improving quality has resulted in greater emphasis on performance measurement.

Competition from Japan and other countries has thrust quality considerations to the forefront in private industry. The works of Peters, Deming, and others have publicized the need for both the public and private sectors to obtain and use information on service

quality, especially from the perspective of customers (Wholey and Hatry, 1992, 606).

As local government officials seek ways to improve services and programs, they have found better ways to manage. According to Osborne and Gaebler (1992, 18), local government has become more innovative and performance oriented.

It is willing to abandon old programs and methods. It is innovative and imaginative and creative. It takes risks. It turns city functions into money makers rather than budget busters. It eschews traditional alternatives that offer only life-support systems. It works with the private sector. It employs solid business sense. It privatizes. It creates enterprises and revenue generating operations. It is market oriented. It focuses on performance measurement. It rewards merit. It says "let's make this work," and it is unafraid to dream the great dream.

Much of the impetus for performance measurement has come from reporting requirements promulgated by GASB. Noting that most public sector performance measurement has been focused on financial indicators, GASB has sought ways to increase accountability of local government managers (Fischer, 1994, 3). No longer is it adequate to concentrate on workload statistics or other similar measures. While perhaps useful, workload measures alone do not provide information relative to quality and outcomes. The Urban Institute recognized the limitations on workload statistics in its 1976 publication, *Program Analysis For State And Local Government*. In that publication the authors pointed out that workload measures may be useful for indicating some aspects of program performance, however, they provide little information about the extent to which those programs serve the citizens and the community (Hatry, Blair, Fisk, and Kimmel, 1976, 39).

As with workload measures, performance reporting does not deal solely with financial information. GASB notes that accountability entails more than financial integrity and a clean balance sheet. According to GASB, the time has come for local governments to report information about service efforts and accomplishments (Ammons, 1994, 281). Performance measurement is a comprehensive approach to the evaluation of programs and services provided by the local government. When approached as a comprehensive evaluation tool, performance measurement can provide the basis for more meaningful performance assessments. For example, local government officials can "...compare performance indicators against those of previous years, comparable units, other jurisdictions, predetermined targets, or, as suggested in the performance measurement literature, against relevant performance standards (Ammons, 1994, 281)." When used for the purpose of improving the delivery of municipal programs and services, performance measures rely on more qualitative data. For Example, Table 2.1 below describes the types of measures that may be used by a city for evaluating the quality of its crime control programs.

In 1986, GASB issued its first concepts statement, which established the basis for performance measures in financial reporting by state and local government entities. Fountain (1994, 7) points out that included among the concepts developed by GASB is the objective that financial reporting should provide information to help users assess the service efforts, costs, and accomplishments of the government entity. GASB continues to provide leadership in developing performance measurement standards for local government.

Table 2.1
Effectiveness Measures Used To Evaluate Crime Control

- Percentage of reported crimes cleared, by type of crime and whether cleared by arrest or by "exception".
- Percentage of adult arrests that survive preliminary court hearing (or state attorney's investigation) and percentage dropped for Police related reasons, by type of crime.
- Percentage of adult arrests resulting in conviction or treatment (a) on at least one charge, (b) on the highest initial charge, by type of crime.
- Percentage of stolen property that is subsequently recovered, (a) vehicles, (b) other property.
- Percentage of (a) citizens, (b) businesses, that feel police respond fast enough when called.
- Percentage of citizens who feel police are in general honest and can be trusted.
- Quantity and street value of illicit drugs seized.

Source: Hatry, et al., (1992), 79-89.

Issuing its second concepts statement in 1994, GASB expanded its philosophy with regard to performance measurement. Noting the constantly changing nature of government, GASB has developed its second concepts statement with greater emphasis on outcomes. According to the report issued by GASB, outcome measures are particularly useful when presented as comparisons with results from previous years, targets or goals and objectives established by the entity, generally accepted norms and standards, other departments or programs within the entity, or other, comparable jurisdictions (both public and private) (Governmental Accounting Standards Board, 1994, 22).

In addition to the work of GASB, The Innovation Groups and ICMA have been developing standards for use by local governments in performance measurement. In 1993, The Innovation Groups began developing Standard Reporting of Performance Measures (SRPM). The SRPM currently includes 42 program areas common to local governments as well as a comprehensive description of appropriate performance measures. There are at least 2 input, 2 output, 4 efficiency, and 4 effectiveness measures for each program included in the SRPM (The Innovation Groups, 1994, 1). The purpose of the SRPM is to provide an assessment of the local government's performance relative to similar communities and similar programs (The Innovation Groups, 1994, 1). ICMA has undertaken a similar program, but has limited its efforts thus far to cities with populations of at least 250,000. Both programs are attempting to develop standards that will be applicable across a wide range of programs and services.

If local government managers and elected officials are interested in providing quality services to their citizens, it is essential that they develop methods of quantifying the effectiveness of service delivery. Performance measures are an effective method of evaluating the quality of

services provided by local governments. "Regular monitoring of service quality and program results is a key component of informed public management and the identification of opportunities for improved public-sector performance (Wholey and Hatry, 1992, 604)."

Criteria For Measurement

Acknowledging the need for measuring performance is just the first step of a very comprehensive task. Determining how performance is measured requires considerable thought and planning. Fischer (1994, 2) notes that many government entities used to pay no attention to their own performance, however, they now seem obsessed with trying to measure a wide variety of programs and services. If local governments are to conduct useful performance measurement programs, they must first have a clear understanding of the purposes for doing so. The following are essential elements public officials should consider when implementing performance measures:

- What the entity is trying to accomplish (that is, its mission, goals, and objectives).
- What magnitude of resources the entity is applying toward that task, and where the resources are coming from.
- How those resources are being converted into the required services or products.
- What those services or products are.
- How results are being measured: how efficiently and effectively the resources are being used toward accomplishing their purpose (Fountain and Roob, 1994, 7).

An important factor to consider when implementing performance measures is to include all relevant stakeholders in the process. All communities have groups of individuals who have a stake in the political process. Connery stresses the importance of involving these groups in the performance measurement process. "Only by involving the stakeholders in decision making can the inevitable conflicts, trade-offs and shifts of opinion necessary to reach consensus occur (Connery, 1995, 58)." Connery also points out that it is important to measure things that are evident to the public. He maintains that one of the most important issues is that the taxpayers, citizens and customers of public services have to know that you are doing something for their benefit (Connery, 1995, 59).

The National Research Council (NRC) has suggested that the process for assessing performance is just as important as the content. "The key to making the process work is to involve all stakeholders, early and often (Connery, 1995, 59)." The NRC also suggests that agreement should be reached on things to be measured. Because there are so many possibilities for things to be measured, this process can be overwhelming.

The process of picking suitable performance measures can be complex, difficult and politically treacherous. Nevertheless, asserts John Cohon, who chaired the NRC panel and is also the Dean of the Yale School of Forestry and Environmental Studies, 'the rightness' of the answer for any community is strongly influenced by its political context (Connery, 1995, 59).

What is satisfying to some people may be harmful to others. "We have not yet learned to manage these broader aspects of performance, but we know now they are important (Connery, 1995, 60)."

In developing performance measures, various associations and institutions have been actively involved in establishing criteria used by local governments. GASB, The Innovations Group, and ICMA are among those organizations that have been involved in such efforts.

Various associations offer guidelines, objectives, targets, norms, and codes applicable to local government operations. Occasionally, some are called standards, but whether or not they are given that label, officially endorsed benchmarks provide local government officials a frame of reference by which they can judge the adequacy of various aspects of their operations (Ammons, 1994, 289).

The following are examples of the form these standards may take.

Practitioner Qualification Standards

Many organizations offer training or certification in their specialized profession. These programs are often voluntary.

Ethical Standards

Many associations have adopted codes of ethics for their members. For example, the ICMA code contains the following tenets:

- Dedication to the highest ideals of honor and integrity in order to merit the respect and confidence of public officials, employees, and the public.
- Abstention from the election of members of the employing legislative body and from partisan political activities that would impair performance as a professional administrator.
- Belief that personal aggrandizement or profit secured by confidential information or misuse of public time is dishonest.

External Standards

External standards are applied by local governments in terms of equipment purchases or regulation of various activities. For example, building codes applied to local construction projects.

Resource (Input) Standards

"These guidelines, often criticized as self-serving, typically take the form of minimum financial commitment or minimum staffing levels for a given function (Ammons, 1994, 290)."

Facility Standards

Few associations recommend facility standards. The National Recreation and Parks Association recommends, "...6.25 to 10.5 acres of developed open space per thousand residents and an array of recreational facilities including one tennis court per two thousand residents and one swimming pool per twenty thousand residents (Ammons, 1994, 290)."

Workload Standards

Perceptions governing volumes of activity per practitioner are rare among professional associations. Some have suggested guidelines but encourage analysis of workload in light of other factors rather than relying on workload statistics as a long-term standard.

Production (Output) Standards

Production standards recommendations are also rare among professional associations. Some suggest the volume of output that could typically be expected in a given profession (such as property appraisers).

Endorsed Standards

Many associations follow the practice of endorsing professional practices and recommend various prohibitions. For example the Governmental Finance Officers Association recommends:

...that a comprehensive annual financial report include an independent auditor's report, a combined balance sheet, and a summary of significant accounting policies; that it use an accrual basis of accounting for proprietary funds, nonexpendable trust funds, and pension trust funds; and that it recognize revenues when measurable and available (Ammons, 1994, 291).

Results Standards

Ammons (1994, 291) suggests that although some associations expressed their intent to adopt standards that address performance of local government entities, few currently do so.

Results (or outcome) standards are currently being developed by several local governments as well as government associations and institutions.

Since the beginning of this decade...the concept of governmental accountability has taken on a new meaning. In this view, government demonstrates accountability when it shows its citizens: (1) what they are getting from the use of public funds in terms of products and services, (2) how these expenditures benefit their lives or the lives of those they care about, and (3) how efficiently and effectively the funds are used. This type of accountability holds government responsible not only for its actions, but for the results of its actions (Campbell 1995, 1).

According to Campbell (1995, 1), an outcome and performance measurement system is a permanent data collection and reporting system that is established to monitor and improve the results of government policies and programs. Campbell further suggests that there are five essential components to such a system:

- *Identify desired outcomes.* This is typically achieved when a government department or agency initiates a strategic planning process to clarify its mission, goals, and objectives. Campbell notes that it is usually recommended that all levels of agency staff be involved in this process, as well as service customers. It is through this process that the agency can more effectively identify the "outcomes" it wants to achieve through its programs.
- *Select measures and indicators.* Good systems, according to Campbell, use only a few selected indicators to measure outcomes and performance.

Most government programs that have established outcome and performance measurement systems have tried to incorporate the five types of information recommended by the Governmental Accounting Standards Board. These include: (1) Input indicators. Inputs are the resources expended on a programs such as the amount of money spent or the total number of employee-hours needed to deliver a service. (2) Output Indicators. These report the quantity of products or units of service provided to a service population. (3) Outcome indicators. These measures report the results of programs and services. (4) Efficiency and cost-effectiveness indicators. These measure the cost per unit of an output or outcome. (5) Explanatory information. This is information on factors affecting an organization's performance.

- *Set performance standards.* Program accountability involves comparing actual program outcomes or results against some standards agreed upon by the stakeholders.
- *Report results.* In an outcome and performance measurement system, program results are reported regularly and are available to the public.
- *Use results for planning, managing, and budgeting.* Information from an outcome and performance measurement system is used on an on-going basis in program planning to reevaluate goals and objectives and to adjust priorities (Campbell, 1995, 2-3).

Well defined performance measurement criteria will result in standards that produce valuable results. Ammons (1994) suggests that if a desired performance standard is practiced, then a good outcome should result. Further, according to Ammons, if an agency engages in those standards which have been recommended, then the outcome should be a quality operation. "Standards enable evaluation by comparison--comparing what is within an agency operation with what is accepted by professionals as desirable (Ammons, 1994, 293)."

Finally, when developing performance measures, it is important to consider possible barriers to performance monitoring and reporting. The following are some of the issues identified by Wholey and Hatry (1992, 608-609) to consider when developing performance measures:

Outcome vs. Impact. A key concern raised about performance monitoring is that it does not indicate the extent to which reported outcomes are due to agency efforts rather than to external factors. Performance monitoring systems generally do not provide information on "causality," nor are they intended to. Knowing

program outcomes, regardless of the cause, is itself of considerable importance.

Validity and Reliability Issues. A second concern is whether there are sufficiently valid and accurate indicators of program quality and program results to avoid production of misleading performance information.

What Are Acceptable Performance Levels? For most public services, no absolute standards of performance are available. For some performance indicators, the ideal target is "zero defects" (for indicators that track the number of illnesses, crimes, roads in poor condition, or amount of water pollution, for example). Seldom, however, are such targets feasible.

Cost. Performance monitoring costs can be high, but can be minimized. Use of existing data, random samples, and using agency personnel to collect and analyze the data can help to reduce costs. GASB's concepts statement regarding performance measurement included a recommendation that all such data should have clearly identified benefits that exceed the costs of gathering and analyzing it.

Reporting Fears. Program managers fear that elected officials, interest groups, and the media may use service quality and program outcomes information as fodder for attacks on them. To alleviate the problem of possible misuse of negative findings, the reporting process should provide program managers the opportunity to provide explanatory information with the program performance data.

Past Lack of Utility to Program Managers. The major beneficiary of service quality and program outcome information should be the program manager. If the performance data are used only for external accountability purposes and not also used to help managers improve their programs, the results may not be worth the costs.

How Performance Is Measured

Cities across the country have begun to implement performance measurement programs.

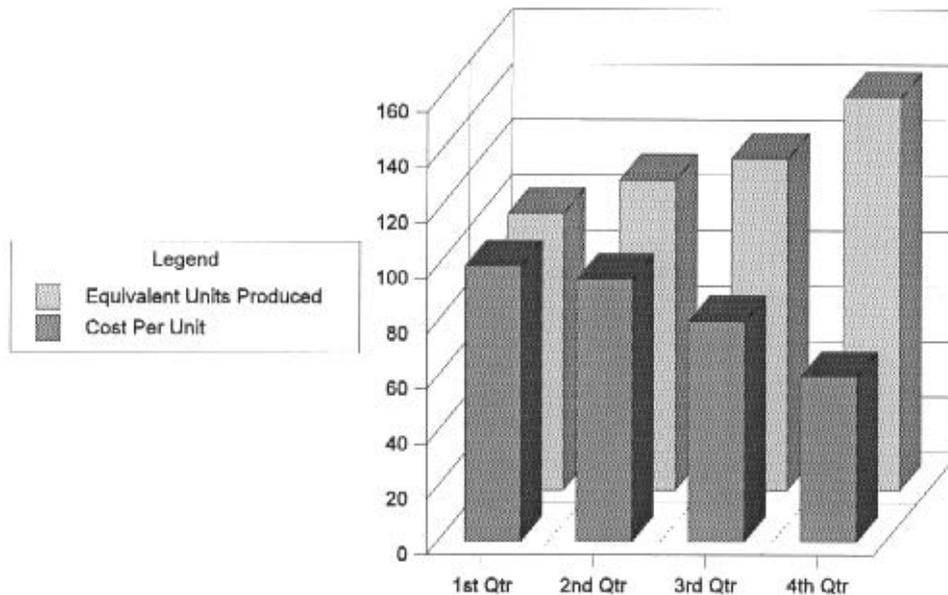
Campbell (1995, 1) suggests that Texas cities have been leaders in this effort.

In a few instances, most notably in the state of Texas, performance measurement has been fully integrated into the budget process. The result is a new type of budgeting called *performance-based budgeting* under which government agencies identify specific outputs and outcomes to be produced by their programs and services.

New York City's Department of Transportation (DOT) has implemented programs that have been intended to improve citizen perception of performance. DOT Commissioner Elliott Sander has determined that he can measure performance simply by asking "How are we doing?" (Stoner, 1995, 62).

In Sunnyvale, California, city officials have used performance measures to streamline operations and improve budgeting techniques. In the 1970s the city council decided to move to a more sophisticated budget system which was performance-based. This system was implemented as a part of a comprehensive planning and management system which established the basic framework utilized by every department in the city. The results of the system are evident. The city has increased productivity by more than 30 percent. In addition, it has maintained very low taxes and fees, and has delivered excellent public services with 30-40 percent fewer employees, compared to neighboring cities. As illustrated in Figure 2.1, Sunnyvale city officials have implemented a program that has resulted in its ability to improve productivity and use more innovative and prudent management techniques, while lowering costs. (Chan, 1994, 7).

Figure 2.1
Cost Versus Production Efficiency



Source: *Government Finance Review*, April 1994

Like many other cities that have implemented performance measurement systems, Sunnyvale chose to manage its government like a business.

By running this \$149 million municipal corporation on three essential business principals--long-range planning, performance budgeting and performance auditing--city officials have improved productivity by 30 percent, reduced the cost of service, and maintained the lowest taxes and fees in the region (Chan, 1994, 7).

When a local government has established the desire to implement a performance measurement system, it must find ways to effectively implement the program. It must determine

what will be measured, how it will be measured, and what will be done with the data. According to Bouckaert (1993), performance measurement includes the collection of data, the processing of that data, and an analysis of the resulting information which then allows comparisons with established norms and standards of performance. "These three steps involved in performance measurement should produce useful information concerning whether the organization is moving in the right direction (Bouckaert, 1993, 29)."

Benchmarking

One way of improving public service delivery is the use of benchmarking. This is the use of performance comparisons of organizational business processes with either external or internal standards of recognized leaders. Fischer (1994, 2-3) points out that benchmarking is often associated with cost analysis, focusing on what competitors do and on what it costs them to do it, including machines, materials, and manpower, as well as nonproduction costs such as distribution. Benchmarking will not solve all the problems with performance, but it is a useful tool. Through benchmarking, a local government can identify those entities which perform best and can use this information to improve performance in their agency.

Fischer maintains that before benchmarks can be established an agency must determine its mission. He describes a mission as the reason why the provider exists. The agency's stated goals are the results that support the mission, and objectives are what must be accomplished to achieve the goals. While a benchmark is a standard, it is not necessarily a measure of quality. Performance and benchmarking are not the same thing. The work of specifying and gathering

data about a program or service is performance measurement. Benchmarking is the practice of reviewing that data to determine who is doing the best job (Fischer, 1994, 4).

With regard to the quality of data or the validity of benchmarks, Fischer (1994, 5) emphasizes the following:

(1) no data are ever perfect; (2) direct comparisons among competitors (or comparisons of yourself against an absolute standard) should be done only to find red flags; and (3) small differences must not be taken as meaningful.

Once benchmarking has been established, the information must be analyzed and practices for improving performance must be developed (Fischer, 1994, 8).

Trained Observer Ratings

Trained observers can be used to collect data used in performance evaluation. These trained observers can review conditions either on site or through the use of photographs. "Trained observers can rate street and alley cleanliness, road and traffic control maintenance, housing conditions, community appearance, park and school building maintenance, and the condition of food establishments (Hatry, et al., 1992, 167)." When properly trained, observers will consistently produce comparable ratings. Trained observer ratings allow local government managers to quantify conditions from either a sample of locations or all locations in the community. Table 2.2 illustrates how a city can use trained observer ratings to set targets for improving the delivery of municipal services such as solid waste collection (Hatry, et al., 1992, 167).

Table 2.2
Format For Reporting Actual Versus Targeted
Performance: Solid Waste Collection

Measure of Effectiveness	Actual Value Previous Year	Target Current Year
Percentage of blocks whose appearance is rated as unsatisfactory ("fairly dirty" or "very dirty"--2.5 or worse on visual rating scale)	18%	13%
Average block cleanliness rating	2.2	1.8
Number of fires involving uncollected solid waste	17	12
Percentage of households reporting having seen one or more rats during the period of a year	15%	8%
Percentage of households reporting one or more missed collections during a year	17%	12%
Percentage of households rating overall neighborhood cleanliness as usually "fairly dirty" or "very dirty"	23%	18%

Source: Hatry, et al., (1992), 206.

ICMA and the Urban Institute have developed guidelines for use of trained observer ratings in performance measurement. The four steps recommended to establish an operational trained observer rating system include:

Step 1: Develop and document explicit definitions for the ratings for each condition to be measured.

Step 2: Develop and document procedures for selecting inspection locations, directing inspectors, recording data, and transcribing and processing data.

Step 3: Select and train observers.

Step 4: Set up a procedure for systematically checking the ratings of the trained observers (Hatry, et al., 1992, 167-168).

While carefully planned trained observer ratings systems can produce consistent and useful management information, there are several factors that can reduce the reliability and validity of the data. Some of the factors that can cause observers to rate conditions improperly include:

- *Forgetfulness*- observers may inadvertently apply modified guidelines if they fail to refer frequently enough to the standard. Or, observers who have several different conditions to rate at once may forget to record one of the ratings.
- *Boredom or fatigue*- these can cause observers to fail to examine all the characteristics that need to be considered in assigning a rating.
- *Excessive speed, visual obstructions, parked vehicles, or traffic*- these can cause observers to miss conditions.
- *Inability* to take the strain of driving and rating, or perhaps inability to read maps or to navigate.

- *Cheating*- observers falsify ratings to avoid the rigors of inspection (Hatry, et al., 1992, 167-168).

Surveying Customers

Surveys² can provide useful data on various service characteristics through *customer ratings*. In Sunnyvale, California, city officials have been able to get valuable information through surveys that have resulted in improved services. The city determines its effectiveness through communication with its citizens. Through the use of surveys conducted in each service area of the city, it has been determined that citizen satisfaction with the delivery of city services is very high (90 percent) (Chan, 1994, 11).

Surveys can provide certain types of factual data that may otherwise be difficult to obtain. Of the performance indicators suggested by ICMA and the Urban Institute, customer surveys consistently produce the most useful data (Hatry, et al., 1992, 173).

There are two types of customer surveys typically used in performance measurement systems. They include user surveys, which question individuals who have used a particular service, and household surveys, which sample households in the community and ask questions about more than one service provided by the local government. Hatry, et al. (1992, 174) suggest that regardless of the type of survey conducted, they should be repeated at least annually, and more frequently if possible. Quarterly surveys are preferable; however, costs of quarterly surveys may be prohibitive.

² For more information on developing surveys, see Earl Babbie, *The Practice of Social Research*, Sixth Edition, (Belmont, California, Wadsworth Publishing Company, 1992), 260.

The benefits of user surveys are that they can:

- Obtain more comprehensive information on the service (the key advantage of user surveys).
- Be less complicated to administer since, for example, addresses and telephone numbers for the service's clients are likely to be available or clients can be readily surveyed at a public facility such as a library or recreation facility.
- Achieve higher response rates, because the potential respondents, being service clients, have a personal interest in the service and are likely to respond (Hatry, et al., 1992, 173).

Household surveys have the following advantages:

- They can obtain information from households that have not used the service, to identify reasons why those households have not used the service and to calculate the percentage of households using, and not using, such services as public transit, libraries, and recreational facilities, by reason for non-use if desired.
- Their costs can be shared by several services and thus will be lower for each service.
- Control of survey quality is easier because these surveys will be administered centrally (otherwise each agency must do or sponsor its own survey) (Hatry, et al., 1992, 173).

Surveys can be administered through in-person interviews, telephone interviews, or by mail. Regardless of the method used, care should be taken to assure that survey information is accurate and that the results are used to improve programs and services. Hatry, et al. (1992, 179) maintain that local governments should involve individual agencies as well as the appropriate program managers both in the initial preparation of the questionnaires and in the subsequent review of the survey findings. These agencies and individuals are especially useful in developing

the survey questions, according to Hatry. It is also very important to allow the program manager who is being evaluated to review and comment on the survey findings before they are presented to higher level officials or to the public.

Surveying The Business Community

It may be particularly useful to include data obtained from the business community when conducting performance measurement of local government programs and services. Because they are often critical to the economic vitality of the community, and because they often represent major clients of local government services, it is important to know their opinions about how well public services are being performed. Surveying the business community can provide a very clear sense of how the business community views the effectiveness of local government programs and services (Hatry, et al., 1992, 185).

Surveying the business community can be very similar to surveying users or households, however, there are special considerations that apply. Rather than attempting to survey all type of business, or even a sample of all types of businesses, the following criteria might be useful to local governments surveying the business community.

- Consider surveying only "for profit" establishments.
- Consider surveying all profit-making firms except those considered to provide professional services (such as doctors, lawyers, consultants, accountants).
- Consider surveying only profit-making establishments in certain industries, such as those that sell retail goods or provide services directly to the public.

As with customer surveys, Hatry, et al. (1992, 187) suggest that business community surveys should be done at least annually. The information should be made available to program managers and an opportunity to provide comments on the survey findings should be allowed.

Businesses may be concerned with the confidentiality of the information they provide. According to Hatry et al. (1992), they should be assured that the information collected in the survey will be confidential. "Businesses contacted should be assured that at no time will any response be identified with a particular business (Hatry, et al., 1992, 188)."

Using the Results of Performance Measurement

Effective public management requires managers who are not afraid to take aggressive and even risky actions to overcome constraints and obstacles. Effective management requires defining and redefining the mission and activities of the organization. The effective public manager works continually to interpret the public's changing needs and to design creative responses to fulfill those needs. Put simply, the effective public manager has a can-do attitude and believes that all problems have a solution; the secret is to persist until the solution is found (Cohen, 1993, 49).

Finding the solution may be easier through the use of performance measurement systems.

In order to be useful to the organization, Bouckaert (1993) suggests that performance measurement systems must be functional. According to Bouckaert, performance measures should contribute to the maintenance or to the development of the organization. If they are not doing so, performance measures become useless or even dysfunctional. "Dysfunctionality refers to the perverse effects of measures resulting in behaviors that contradict the intended goals and purposes of the organization (Bouckaert, 1993, 34)." Through the use of performance measures, the

governmental entity may provide a stricter focus on the functionality of the measures (Bouckaert, 1993, 34).

ICMA and The Urban Institute have developed a variety of suggested uses of performance measurement data. They include:

- *Accountability*- The data may be used to review progress and trends of government services. Such information can be useful to government officials in determining if a service is adequate.
- *Resource Allocation*- By identifying problem areas, effectiveness measurement information can provide guidance to management concerning allocation of resources. Information should be broken down into distinguishable service areas in order to maximize the information obtained. Such information is more valuable to the manager than overall ratings.
- *Budget Formulation and Justification*- Budget information should include information on how effectively the service is being performed. This information helps managers make initial budget decisions and can help government officials justify expenditures to the council and the public.
- *Program Evaluation and Analysis*- When evaluated over time, this information can help managers to determine if the service is meeting its intended goals.
- *Employee Motivation*- Effectiveness information makes establishment of performance target or incentive systems for both management and nonmanagement employees considerably more practical and meaningful.
- *Performance Contracting*- When evaluating the quality of contractors' work, efficiency measures can provide objective information.
- *Quality Control and Checks on Efficiency Measurements*- At the very least, effectiveness data should be presented

along with the unit-cost data to give public officials a perspective on the relationship between effectiveness and efficiency.

- *Improvements of Communication Between Citizens and Local Government Officials-* Surveys, trained observer ratings, and business surveys can produce more significant data about the quality of service than simply relying on citizen complaints or personal observations by managers.
- *Improvement of Services to Customers-* Ultimately, the predominate rationale for regularly measuring performance is to improve services to the public and so provide greater value for the dollars spent on services.

The clear articulation of how performance measures will be used in the organization can result in greater acceptance of performance measurement and thus improve their utility to local government officials.

Assuring Quality Through Performance Measures

Performance measurement is being implemented by local governments throughout the United States. While this is happening in large part due to financial accountability standards being promulgated by the Governmental Accounting Standards Board, it is also happening because local government leaders are looking for ways to improve services. Performance measurement provides objective data from which public managers and elected officials can determine the effectiveness of programs and services. With that information, better decisions can be made about resource allocation, budgeting, and quality.

GASB, ICMA, and The Innovation Groups are currently developing standards by which performance of local governments can be measured. In addition, several local governments are

developing their own standards. Through effective implementation of performance measurement systems, local governments can improve programs and services, thus assuring the citizens that their tax dollars and user fees are being properly managed.

Conceptual Framework

The organizing framework used to examine the level of support Texas city managers have for the use of performance measurement is developed in this section. In addition, barriers to the effective use of performance measures are identified and evaluated. These barriers include resistance to national standards, implementation barriers (for example, costs, reporting fears, and lack of utility), and conceptual barriers.

This study uses working hypotheses (**WH**) as a conceptual tool to explore the use of performance measures by Texas city managers. The literature review has established that performance measures are widely regarded as a means to enhance government efficiency and performance. In addition, the State of Texas is a leader in the use of performance measures. Hence, one would expect:

WH₁: Texas city managers support the use of performance measurement systems to evaluate the delivery of municipal programs and services.

Because Texas city managers have been among the leaders in development and use of performance measures, it is anticipated that many cities in Texas are currently using performance measures to evaluate the quality and efficiency of municipal operations. Although performance measurement is still a relatively new approach to evaluating the delivery of programs and services it seems probable that their use is more extensive in Texas than perhaps in other states.

This is primarily due to the support Texas city managers have shown for their use and because of the involvement of many Texas city managers in the development of performance measures.

Thus, one would expect:

WH₂: Texas city managers are currently using performance measures to evaluate the delivery of municipal programs and services.

The literature review has shown the value of using performance measures to evaluate the efficiency and quality of the delivery of municipal programs and services. However, even though one would expect the support of performance measurement systems among Texas city managers, barriers to their implementation exist.

WH₃: There are barriers to the use of performance measures by Texas city managers.

For the purpose of evaluating barriers to the use of performance measures, three categories were identified: national standards, implementation barriers, and conceptual barriers. The use of standardized performance measures for all cities throughout the United States were examined as possible barriers to the use of performance measures by Texas city managers. Cities vary significantly in size, demographics, and organizational structure. Because of this, it is difficult to develop performance measures that will result in a "one size fits all" category. It is possible that city managers will resist the use of such standardized measures because they are not confident that their city can be accurately compared to another.

WH_{3a}: Lack of support for national standards for performance measures limit the use of performance measures by Texas city managers.

Implementation barriers were also examined as a possible barrier to the use of performance measures by Texas city managers. Wholey and Hatry (1992, 609) suggest that such things as costs, reporting fears, and past lack of utility to program managers may result in barriers to the use of performance measures. Thus, one would expect:

WH_{3b}: Implementation barriers limit the use of performance measures by Texas city managers.

Conceptual barriers to the use of performance measures were also examined. Because performance is often viewed in terms of outputs, it is possible that Texas city managers will not be able to accurately identify appropriate indicators of performance defined as outcomes. If this is indeed the case, then one would expect:

WH_{3c}: Conceptual barriers limit the use of performance measures by Texas city managers.

Four groups of Texas Cities have been studied, based on population. Population categories have been determined by using categories developed by the International City/County Management Association (ICMA, 1995, xi.). These categories include:

- Texas cities with population of less than 25,000.
- Texas cities with populations between 25,000 and 49,999.
- Texas cities with populations between 50,000 and 99,999
- Texas cities with populations of 100,000 or more.

Although no differences in attitudes and opinions of Texas city managers were anticipated as a result of city size, it was believed to be important to the study to categorize cities by size because of organizational characteristics that are unique to cities of varying size. For

example, larger cities typically have management staff that are specialists in their areas of oversight. As a result, they may be more inclined to support the use of performance measures to evaluate programs and services because they concentrate on a specific area of concern. In the smaller cities, management staff may have a variety of overlapping responsibilities and may find that they have neither adequate resources nor expertise to effectively measure performance. If differences do occur, those differences are most likely to be clustered in cities of similar size.

Hence, one would expect:

WH₄: Cities with populations of 50,000 or greater are more likely to use performance measurement systems than cities with populations of less than 50,000.

The chapters that follow will provide detailed information regarding the research that tests these hypotheses. In addition, information will be provided regarding Texas cities and the Council/Manager form of government which is the survey population for this study.

Chapter 3 *Research Setting*

The purpose of this chapter is to provide the reader with background information regarding the council-manager form of government and the cities chosen for the research . It describes the context of the research and explains why the study of performance measurement is relevant to Texas city managers.

Legal Structure of Texas City Government

The legal structure of Texas city government is generally prescribed by state statutes, although some flexibility is provided for in the statutes, especially for cities with populations of 5,000 or greater. The cities that participated in the survey for this study represent a variety of legal structures; however, all cities in the study have adopted the council-manager form of government. The following provides a brief description of the legal structures found in Texas city government.

General Law Cities

In Texas, all cities with populations of less than 5,000, or those which have not adopted home rule charters, are subject to governance based on general laws that are adopted by the

Texas Legislature.¹ General law cities are restricted to doing only what is authorized by the State. "If state law does not grant general law cities the express or implied power to initiate a particular action, it may not be taken" (Blodgett, 1994, 5).

Home Rule Cities

Home rule cities are those cities with populations of at least 5,000, and whose voters have adopted a home rule charter. Texas voters adopted the home rule amendment to the Texas Constitution in 1912, and the State Legislature followed in the regular session in 1913 to adopt the enabling legislation. The constitutional amendment, Article XI, Section 5, allows any city over 5,000 in population to adopt a home rule charter. Any home rule charter adopted by any city may not contain any provision that is not consistent with the state constitution or state statutes (Blodgett, 1994, 2). Clearly, home rule cities have far greater authority to conduct business than general law cities.

According to Blodgett (1994, 3) the constitutional amendment adopting home rule authority is generally considered to have three major objectives:

- (1) to create a favorable climate for more direct governing of cities by their citizens,
- (2) to secure adequate powers so that municipalities could meet increased demands for services, and
- (3) to avoid interference in local government by the state legislature.

City officials in home rule cities have long recognized that while they have much broader

¹ For a detailed explanation of state statutes regarding general law and home rule cities, see Title 2, Texas Local Government Code.

authority to enact municipal legislation than general law cities, they are limited by the state constitution or statutes enacted prior to adoption of the charter. Blodgett (1994, 3) points out that, "...a state general law affecting cities passed tomorrow supersedes a city charter provision enacted today or yesterday."

Council-Manager Form of Government

One of the results of the Home Rule Amendment to the state constitution is that home rule cities may, by charter provision, establish the form of government it chooses. Many home rule cities in Texas have adopted the council-manager form of government. According to Blodgett (1994, 75), as of May, 1994, 86 percent of home rule cities in Texas have adopted the council-manager form of government. This number includes only those cities that have language indicating that a city shall employ a city manager. Another 17 cities have charter provisions that state that the city may employ a city manager.

The duties of the city manager are varied and often the lines between policy and administration become blurred. However, most Texas city charters contain language that outline the duties and responsibilities of their city manager. The National Civic League has provided model language for city charters which outlines the powers and duties of city managers. That model language is shown in Figure 3.1 below.

Figure 3.1 Powers and Duties of the City Manager

The city manager shall be the chief administrative officer of the city, responsible to the Council for the administration of all city affairs placed in the manager's charge by or under this charter. The city manager shall:

- Appoint, and when necessary for the good of the service, suspend or remove all city employees and appointive administrative officers provided for by or under this charter, except as otherwise provided for by law, this charter or personnel rules adopted pursuant to this charter. The city manager may authorize any administrative officer subject to the manager's direction and supervision to exercise these powers with respect to subordinates in that officer's department, office or agency;
- Direct and supervise the administration of all departments, offices and agencies of the city, except as otherwise provided by this charter or by law;
- Attend all city council meetings. The city manager shall have the right to take part in discussion but shall not vote.
- See that all laws, provisions of this charter and acts of the city council, subject to enforcement by the city manager or by officers subject to the manager's direction and supervision, are faithfully executed;
- Prepare and submit the annual budget and capital program to the city council;
- Submit to the city council and make available to the public a complete report on the finances and administrative activities of the city as of the end of the fiscal year;
- Make other reports as the city council may require concerning the operation of city departments, offices and agencies subject to the city manager's direction and supervision;
- Keep the city council fully advised as to the financial condition and future needs of the city;
- Make recommendations to the city council concerning the affairs of the city;
- Provide staff support services for the mayor and council members; and
- Perform such other duties as are specified in this charter or may be required by the city council.

Source: Blodgett, 1994, 78.

Performance Measurement in Texas Cities

This study examines the use of performance measures by Texas city managers. Cities that have adopted the council-manager form of government were chosen for the study because of the commitment city managers have made for providing quality municipal services. According to H. George Fredrickson (1989, xi), the council-manager form is now the dominate system of local government in the United States. Fredrickson asserts that "administration has come to be as important as suburbanization in contemporary government." Due to the increasing use of innovative approaches for providing municipal services, as well as the increasing demands by the public for those services, the role of the city manager in assuring the quality and effectiveness of municipal programs and services has become critical. Fredrickson (1989, xii) maintains that the administrative (council-manager) form of government has been both adaptable and resilient to these demands.

As noted in the previous chapter, Texas cities have been leaders in the use of performance measurement. Osborne and Gaebler (1992) point out that Dallas, San Antonio, and Fort Worth have all implemented programs that are intended to improve performance. In each of these cities, measures have been established to determine the quality and effectiveness of municipal programs and services. As the demand for accountability increases, it is certain that more and more Texas cities will implement performance measurement systems. This study examines the extent to which Texas city managers have already implemented such programs and how supportive they are of performance measurement. The following chapter will review the methodology used in this study.

Chapter 4

Research Methodology

This study examines the opinions and attitudes of Texas city managers regarding the use of performance measures. In addition, this study looks at documents prepared by cities which have indicated that they have implemented performance measures. Since this study is both exploratory and descriptive, two separate research methods will be used to examine this subject and test the hypotheses. Survey research has been chosen to examine the attitudes and opinions of Texas city managers regarding the use of performance measures, as well as to identify barriers to the use of performance measures. Document analysis is used to examine conceptual barriers to the use of performance measures. This chapter discusses these research methods and describes the methodology used to conduct this study. In addition, the hypotheses developed in the conceptual framework section are operationalized.

Use of Survey Research

According to Babbie (1992, 262), survey research is appropriate for descriptive research. It is primarily used when the unit of analysis is individuals, such as city managers in the case of this study. Survey research is also useful when observing populations too large for collecting data by direct observation. In this study, the population includes 100 city managers from Texas cities throughout the state. Thus, since this population did not lend itself to direct observation,

survey research was an appropriate methodology.

Yin (1994, 6-7) also suggests that survey research is appropriate when conducting descriptive studies. He maintains that the investigation of prevalent political attitudes can be accomplished through surveys. If, for example, the researcher wants to know what the outcomes of a new program implemented by an organization had been, this can easily be determined through the use of a survey.

There are a variety of methods used to collect data through survey research. The three most common methods include mail distribution and return, staff interviews, and telephone surveys (Babbie, 1992, 263). The methodology used in this study is mail distribution and return. Each method of data collection has advantages and disadvantages. Among of the primary advantages of self-administered mail surveys are their relatively low cost and amount of time necessary for collection of data. In addition, Babbie (1992, 277) notes that it usually takes a very small staff to conduct a mail survey, whereas with face-to-face or telephone surveys, a much larger staff may be necessary. In this study, the survey was conducted entirely by the researcher, with all data collection and analysis done by only one person.

Another important element of a mail survey is its potential for confidentiality. Babbie (1992, 277) notes that often individuals are reluctant to report controversial attitudes or behaviors when responding to surveys. If the survey allows them to respond anonymously or with assurance that their responses will remain confidential, they are usually more willing to respond. This issue was considered in this study because some of the statements in the survey were intended to determine if conceptual barriers to the use of performance measures exist among Texas city managers. If an individual city manager was not able to identify appropriate measures

for evaluating the quality and effectiveness of municipal programs and services, it is likely that they would not wish to be identified. In this study, all respondents were advised that their responses would remain confidential and that only summary information would be reported.

The use of survey research also has weaknesses which were considered when developing this study. Babbie (1992, 279) notes that the requirement for standardization is an inherent weakness of survey research. "Standardized questionnaire items often represent the least common denominator in assessing people's attitudes, orientations, circumstances, and experiences." In addition, survey research usually fails to deal adequately with the context of social life. Through survey research, the researcher loses the ability to develop a sense of the total life situation of the subject. That is why document analysis is used to supplement the survey.

Babbie (1992, 279) also points out the inflexibility of survey research. While field research allows the research to consider information obtained through direct observation to be considered and the research methodology modified accordingly, survey research typically requires the research methods to remain consistent throughout. Important new variables that may be obtained through field research may be completely overlooked when conducting survey research.

"Survey research is generally weak on validity and strong on reliability (Babbie, 1992 279)." Responses to questions generally only approximate the attitudes and opinions of respondents. Nonetheless, survey research has the ability to result in very reliable research observations. By being aware of these strengths and weaknesses, the researcher can be better equipped to produce a valuable research product.

Use of Document Analysis

The use of document analysis is appropriate for exploratory research where information exists about the subject of the study. In this study, respondents were asked to provide samples of documents that reported performance measures. Review of these documents allowed the researcher to determine whether or not conceptual barriers to the use of performance measures exist, even in those cities which report that they are currently using performance measurement systems.

Babbie (1992, 312) suggests that document analysis is an unobtrusive method of research. That is, it does not require the researcher to deal directly with individuals, rather the research is performed simply by reviewing information produced by those individuals. "Like a detective, the social researcher looks for clues... (Ibid.)." In this study, budget documents were reviewed by the researcher and did not require direct contact with the subjects providing the information.

As with any research method, document analysis has both strengths and weaknesses. Babbie (1992, 328) states that perhaps the most important advantage of document analysis is its economy both in terms of time and money. Also, it offers a degree of safety. If some part of the research should become invalid, it would not require costly or time consuming elements of the research to be repeated. The use of document analysis in this study was very cost effective because it required only the cost of postage requesting the information and did not require travel to the various cities being studied. In addition, the information was easily reviewed and it took very little time to determine its usefulness to the research.

Babbie (1992, 328) points out that document analysis also has disadvantages as a research tool. He notes that content analysis is limited to recorded communications. "Such

communications may be oral, written, or graphic, but they must be recorded in some fashion to permit analysis (Ibid.)."

The Survey Instrument

A self-administered survey was used to identify the attitudes and opinions of Texas city managers regarding the use of performance measures (see Appendix A). The survey was mailed to 100 Texas city managers selected from the Texas City Management Association's (TCMA) 1995-1996 Membership Directory. The TCMA directory lists 401 Texas cities having city managers or city administrators. For the purposes of this study, no distinction is made between city managers and city administrators. As noted in the previous chapter, because of the relatively small number of Texas cities with populations greater than 25,000, all of those cities were sent surveys. The total number of cities listed in the TCMA directory with populations greater than 25,000 is 61. The other 39 cities chosen for this study were selected randomly from the remaining cities listed in the directory.

Cities selected for the study were grouped according to population. Four population categories were used to group the cities participating in the survey. The following categories were used:

Table 4.1
Cities Chosen For Study

Population of Texas Cities	Total TCMA Member Cities	Number Sent Surveys	Percent Responding
Less than 25,000	340	39	61%
25,000 to 49,999	27	27	81%
50,000 to 99,999	16	16	70%
Greater than 100,000	18	18	54%

The surveys were sent to the city manager of each city identified for participation in the study. The surveys were mailed on February 1, 1996 and the respondents were asked to return them by February 10, 1996. Self addressed, stamped envelopes were provided to the respondents for returning the surveys and a FAX number was also provided so that respondents could return the surveys by FAX if they so desired. According to Earl Babbie (1992, 262), anything one can do to make return of the survey simpler, the more likely the respondent is to complete and return it. Therefore, careful consideration was given to providing clear and easy instructions for completion and return of the survey instrument.

In addition to the survey, respondents were asked to return a sample of performance measures used by their cities if they had implemented a performance measurement system. Respondents were asked only to send a sample from a budget or other document where performance measures are reported. This information was intended to provide the researcher with the material necessary to conduct the document analysis portion of this study.

Survey Design and Construction

The survey consisted of 21 closed ended statements utilizing a Likert scale and one statement requiring a "yes" or "no" response. Respondents were asked to indicate if they strongly agreed, agreed, disagreed, strongly disagreed, or didn't know, to each statement included in the survey. Babbie (1992, 180) suggests that this format is valuable in survey research because of the unambiguous ordinality of response categories. Further, the Likert method is also useful in index construction because the identical response categories allow several items intended to measure a given variable to be scored in a uniform manner.

Avoiding bias was considered in the construction of the survey. Babbie (1992, 151) warns that careful construction of the survey is necessary in order to avoid questions that result in biased responses. "The meaning of someone's response to a question depends in large part on the wording of the question that was asked (Ibid.)." Each statement in the survey was developed using terms and concepts that are generally recognized by city managers. A careful review of the literature helped in the development of the survey instrument and was used to strengthen its validity. Further, the basis for selecting the criteria for performance measures was obtained from a publication of the International City Management Association (Hatry, et al., 1992).

The survey instrument was prepared so that it was easy to provide responses. Each statement was clearly worded and a rating scale was provided for each statement. The survey was four pages in length and a reminder of the rating method was provided at the top of each page. As noted by Babbie (1992, 153), the survey should be spread out and uncluttered. An improperly constructed survey can lead the respondent to miss questions or confuse them. The survey used in this study was carefully constructed according to Babbie's suggestions.

Operationalization of Hypotheses

In order to evaluate the hypotheses, a survey was developed in which statements were presented to the respondents to determine if Texas city managers support the use of performance measures, if Texas city managers are currently using performance measures, and if there are barriers to the use of performance measures. Table 4.2 illustrates the relationship between the research purpose and the working hypotheses, as well as lists the survey statements associated with each hypothesis.

To determine if Texas city managers support the use of performance measures, three statements were presented to the respondents. Each statement was intended to determine if Texas city managers believe that performance measures are an effective method of evaluating the delivery of municipal programs and services. Responses of "Strongly Agree" or "Agree" would indicate support for the use of performance measures.

Only one statement was presented to determine if Texas city managers are currently using performance measures. That same statement was used to determine if cities with populations of greater than 50,000 are more likely to use performance measures than cities with populations of less than 50,000. That statement simply asked if the respondent's city is currently using performance measures to evaluate the quality and effectiveness of municipal programs and services.

Table 4.2
Operationalization of Hypotheses

Research Purpose	Working Hypotheses	Survey Statement Number
To examine support of performance measures by Texas City Managers.	Texas City Managers support the use of performance measurement systems to evaluate the quality and effectiveness of municipal programs and services.	1, 3, 4
To determine if Texas City Managers are currently using performance measures to evaluate delivery of municipal programs and services.	Texas City Managers are currently using performance measures to evaluate delivery of municipal programs and services.	22
To identify relevant barriers to the use of performance measures by Texas City Managers.	There are barriers to the use of performance measures by Texas City Managers.	2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
To distinguish barriers to the use of performance measures by Texas City Managers.	Lack of support for national standards for performance measures limit the use of performance measures by Texas City Managers.	2
To distinguish barriers to the use of performance measures by Texas City Managers.	Implementation barriers limit the use of performance measures by Texas City Managers.	5, 6, 7, 21
To distinguish barriers to the use of performance measures by Texas City Managers.	Conceptual barriers limit the use of performance measures by Texas City Managers.	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
To determine if city size has an effect on the use of performance measures by Texas city managers.	Cities with populations of 50,000 or more are more likely to use performance measures than cities with populations of less than 50,000.	22

A series of statements was also presented to the respondent to determine if barriers to the use of performance measures exist. In addition, those same statements were used to distinguish those barriers if they were found to exist. Those statements were categorized as correct or incorrect responses. A high rate of incorrect responses would indicate that barriers do indeed limit the use of performance measures in Texas cities. All of the survey statements are found in Appendix A of this study.

In addition to the statements scored by respondents on the Likert scale, respondents were also asked if their cities are currently using performance measurement systems to evaluate the quality and effectiveness of municipal programs and services. If a respondent answered "yes" to that question, they were then asked to provide an example from their city's budget or other document where performance measures are reported. Document analysis was performed on the documents submitted by the respondents to determine if performance measurement systems were, in fact, being used; or, if the documents submitted reflected conceptual barriers to the use of performance measures.

Statistical Methodology

In order to evaluate the responses to the survey, simple descriptive statistics was used. According to Babbie (1992, 389), the most basic format for reporting univariate data is to report on all individual cases being studied. While all of the individual responses are reported in the appendices of this report, in order to analyze the data, this study uses percentages of total responses for each possible response to each survey statement. Inferences were made about the

hypotheses based on the percentage of responses for each point on the Likert scale for each survey statement.

Babbie (1992, 236) suggests that it is usually a good idea to include a category for "don't know" or "no opinion" when conducting survey research. This study includes a response point on the Likert scale for "don't know". It is recommended by Babbie (Ibid.) that when considering what to do with this information, it may be useful to exclude the data when calculating percentages of responses to each statement. However, because this study is interested in determining if conceptual barriers to the use of performance measures exist, the "don't know" responses become important because they may indicate a conceptual barrier. Therefore, all responses were reported as percentages for each statement on the survey.

The following chapter will review the results of the survey and the documents used to analyze the working hypotheses, and report the findings of the study.

Chapter 5

Results

The purpose of this study is to determine if Texas city managers support the use of performance measures to evaluate the quality and effectiveness of municipal programs and services. In addition, it attempted to identify barriers to the use of performance measures. This chapter reviews the data obtained by the survey and reports the findings. The hypotheses are tested to determine if they are supported by the data.

Response Rates

Surveys were mailed to 100 Texas city managers. Although a very short period of time was allowed for response and return of the surveys, 64 percent of the surveys were completed and returned. The cities surveyed were grouped according to city size. Table 5.1 illustrates the number and percentage of cities responding, by city size. All of the responses were complete and useable, and all respondents identified themselves and the cities they represent.

According to Babbie (1992, 267), overall response rate is important to survey research. "If a high response rate is achieved, there is less chance of significant response bias than if a low rate is achieved." Babbie suggests that a response rate of at least 50 percent is adequate to for research analysis and reporting. He further states that a rate of at least 60 percent is good and a rate of 70 percent is very good.

Table 5.1
Response Rates
N=64

Population Categories	Number of Cities Responding	Percentage of Category Responses
Cities with Populations of 100,000 or Greater N = 18 (18%)	11	61%
Cities with Populations of 50,000 to 99,999 N = 16 (16%)	13	81%
Cities with Populations of 25,000 to 49,999 N = 27 (27%)	19	70%
Cities with Populations of Less Than 25,000 N = 39 (39%)	21	54%

Results and Analysis

The survey was designed to test the working hypotheses that have been developed based on the review of literature regarding use of performance measures by municipal managers. Each statement has an associated research purpose and working hypothesis. Some of the statements may overlap and relate to more than one research purpose and working hypothesis. Appendix A identifies which survey statement is used to test each working hypothesis. The following describes the results and analysis of the data obtained from the survey, according to the relevant working hypothesis.

Management Support of Performance Measures

WH₁: Texas city managers support the use of performance measurement systems to evaluate the delivery of municipal programs and services.

One of the basic issues examined by this study was whether Texas city managers support the principals of performance measurement. To determine this, three statements were presented to the respondents to which they responded that they strongly agreed, agreed, disagreed, strongly disagreed, or didn't know. When asked if performance measurement is an effective way to evaluate the quality and effectiveness of the delivery of municipal programs and services, 86 percent indicated that they either agreed or strongly agreed. Only 7 percent said they disagreed, and 2 percent indicated that they didn't know. When asked if they thought performance measurement can provide useful information regarding successful outcomes of programs and services, the positive response rate was even higher, with 97 percent of the respondents strongly agreeing or agreeing. Only 2 respondents disagreed with the statement. Finally, city managers were asked if they thought performance measurement systems usually provide accurate and valid indicators of program quality and program results. For this statement the positive response rate was somewhat lower, with only 63 percent of the respondents strongly agreeing or agreeing. Responses of disagree or strongly disagree represented 25 percent of the total responses, while 12 percent of the respondents indicated that they didn't know. Table 5.2 indicates the response rates to each of the statements. The following statements were presented in the survey to determine the support for performance measures by Texas city managers:

1. Performance measurement is an effective way to evaluate the

quality and effectiveness of the delivery of municipal programs and services.

3. Performance measurement can provide useful information regarding successful outcomes of programs and services.

4. Performance measurement systems usually provide accurate and valid indicators of programs quality and program results.

Table 5.2
Support For Performance Measures
N = 64

Statement	Percent Strongly Agree and Agree	Percent Strongly Disagree and Disagree	Percent Don't Know
1. Performance measurement is an effective way to evaluate quality and effectiveness of programs and services	86	11	3
3. Performance measurement can provide useful information regarding outcomes of programs and services.	97	3	0
4. Performance measurement systems usually provide accurate and valid indicators of quality and program results.	63	25	12

Clearly, the results of the survey indicate that Texas city managers support the use of performance measurement systems to evaluate the quality and effectiveness of municipal programs and services.

Cities Currently Using Performance Measures

***WH₂*: Texas city managers are currently using performance measures to evaluate delivery of municipal programs and services.**

A second research purpose was to determine if Texas city managers are currently using performance measures to evaluate the delivery of municipal programs and services. The literature review indicated that Texas cities are leaders in the development and use of performance measurement systems. Thus, it was hypothesized that most cities surveyed would indicate that they are currently using performance measurement systems. To evaluate this hypothesis, a single statement was presented to the respondents asking if their city is currently using performance measures. Only 20 city managers (31 percent of the respondents) indicated that their cities are currently using performance measurement systems. The low affirmative response rate to this question indicates that although most Texas city managers support the use of performance measurement systems, there is not currently wide spread use of performance measures to evaluate municipal programs and services. Thus, the data does not support *WH₂* and it is therefore rejected.

Barriers To The Use of Performance Measures

***WH₃*: There are barriers to the use of performance measurement systems.**

Another research purpose was to identify relevant barriers to the use of performance measures by Texas city managers. A majority of the survey questions dealt with this issue. The study was intended to first determine if barriers exist, and then to subsequently identify the

barriers more specifically. Statements were presented to respondents to determine their understanding of performance measures. Table 5.3 illustrates responses which were used to evaluate the level of understanding Texas city managers have of appropriate measures of performance. The following statements were presented to survey respondents to determine if there are barriers to the use of performance measures by Texas city managers:

2. Cities should cooperate in developing national standards for performance measurement.
5. Performance measurement systems usually provide accurate and valid indicators of program quality and program results.
6. Program managers often fear that the results of performance measurement systems may be used to attack them by supervisors, City Councils, the media, or the public.
7. If the results of performance measurement are not used to improve programs and services, they are not worth the cost of implementing them.
8. Most program managers are able to identify appropriate performance measurement criteria.
9. Tons of asphalt distributed per week is an appropriate performance measure of a City's street department.
10. Number of lane miles of streets reported to be in good condition is an appropriate performance measure of a City's street department.
11. Number of gallons of water treated per day for public consumption is an appropriate performance measure of a City's water treatment department.
12. Percentage of customers who rate their drinking water as satisfactory in appearance, taste, and odor is an appropriate performance measure of a City's water treatment department.
13. Percentage of blocks with sidewalks in satisfactory condition

is an appropriate performance measure of a City's transportation department.

14. Percentage of citizens satisfied with the adequacy and condition of the sidewalks in their neighborhoods is an appropriate performance measure of a City's transportation department.

15. Percentage of citizens reached by public fire education is an appropriate performance measure of a City's fire department.

16. Number of incendiary fires and suspicious fires per 1,000 population is an appropriate performance measure of a City's fire department.

17. Time to control or extinguish a fire is an appropriate performance measure of a City's fire department.

18. Percentage of citizens who feel police are generally fair in dealing with them is an appropriate performance measure of a City's police department.

19. Number of traffic citations issued per officer each day is an appropriate performance measure of a City's police department.

20. Percentage of stolen vehicles that are subsequently recovered is an appropriate performance measure of a City's police department.

21. Performance measurement systems are useful only if they are easy and cost-effective to implement.

Because of the large number of statements used to determine if barriers to the use of performance measures exist, it is possible that a wide range of responses is possible. Such was the case in this study. For example, Statement 9 asked if tons of asphalt distributed per week is an appropriate measure of a City's street department. According to the literature, this is a workload measure and does not represent a measure of performance. The respondents to the survey clearly understood that this was not a measure of performance as indicated by responses

of disagree and strongly disagree of 89 percent. However, Statement 16 asks if number of incendiary and suspicious fires per 1,000 population is an appropriate measure of a City's fire department. According to Hatry (1992, 99), this does represent a measure of performance.

Seventy three percent of the respondents disagreed or strongly disagreed with this statement, indicating a conceptual barrier to the use of performance measures. It is therefore necessary to view all responses collectively to determine if barriers exist. The sub-hypotheses are then evaluated to determine the nature of barriers if they are found to exist. All the data relevant to WH_3 were evaluated to determine support for the hypothesis. The cumulative data for all statements on the survey related to this working hypothesis indicated support for the working hypothesis. Thus, the study provides evidence that barriers to the use of performance measures exist among Texas city managers.

The following sub-hypotheses will examine the barriers more closely to determine which type of barriers limit the use of performance measures by Texas city managers.

Table 5.3
Barriers To The Use Of Performance Measures
N = 64

Statement	Percent Strongly Agree and Agree	Percent Strongly Disagree and Disagree	Percent Don't Know
2. Cities should cooperate in developing national standards	64	28	8
5. Costs of performance measures usually provide accurate and valid indicators of quality and results.	38	42	20
6. Program managers fear performance measures may be used to attack them.	59	28	13
7. Performance measures are not worth the cost to implement if not used to improve programs and services.	75	25	0
8. Most program managers can identify appropriate performance measurement criteria.	53	39	8
9. Tons of asphalt per day is an appropriate measure of performance.	9	89	2
10. Number of lane mile of streets in good condition is an appropriate measure of performance.	54	40	6
11. Number of gallons of drinking water treated per day is an appropriate measure of performance.	31	66	3
12. Percentage of customers who rate drinking water highly is an appropriate measure of performance.	76	21	3
13. Percentage of sidewalks in good condition is an appropriate measure of performance.	38	57	5
14. Percentage of citizens satisfied with sidewalk conditions is an appropriate measure of performance.	64	30	6
15. Percentage of citizens reached by fire education is an appropriate measure of performance.	53	41	6
16. Number of fires per 1,000 population is an appropriate measure of performance.	19	73	8
17. Time to control a fire is an appropriate measure of performance.	61	25	11
18. Percentage of citizens who feel they are treated fairly by police is an appropriate measure of performance.	71	23	6
19. Number of traffic citations per day is an appropriate measure of performance.	15	77	8
20. Percentage of stolen vehicles recovered is an appropriate measure of performance.	63	29	8
21. Performance measurement systems are useful only if cost effective and easy to use.	53	42	5

National Standards As Barriers

***WH_{3a}*: Lack of support for national standards for performance measures limit the use of performance measures by Texas city managers.**

The literature indicated that at least three national organizations are currently developing standards for performance measures. Because city managers may feel that national standards cannot accurately describe the demographic or organizational differences among various cities, it is hypothesized that they will resist development of national standards for performance measures. This hypothesis was tested by presenting a single statement in the survey. Statement 2 on the survey stated that cities should cooperate in developing national standards for performance measurement. Sixty four percent of the respondents strongly agreed or agreed with this statement, while 36 percent strongly disagreed, disagreed, or didn't know. The data collected to evaluate this working hypothesis indicated support for the null hypothesis, thus, the working hypothesis is rejected.

Implementation Barriers

***WH_{3b}*: Implementation barriers limit the use of performance measures by Texas city managers.**

The literature on performance measures indicates that there may be implementation barriers to the use of performance measures. For example, Wholey and Hatry (1992, 608) suggest that the potentially high costs of monitoring performance may result in limiting the use of performance measurement systems. In addition, reporting fears may limit the use of performance measure. Wholey and Hatry also point out that program managers may fear that elected officials, interest groups, and the media may use information obtained from performance measurement systems to attack program managers for poor performance.

The survey included statements that were used to determine if Texas city managers believe that implementation barriers limit the use of performance measurement systems. Statement 5 asks respondents their opinions about whether the costs of performance measurement systems often exceed the value of implementing such a system. There was a wide range of responses to this statement. Survey results indicate that 38 percent of the respondents believe that costs of performance measurement systems often exceed the value of implementing them. Another 20 percent of the respondents indicated that they didn't know. This response rate is significant relative to the strong support respondents indicated for the use of performance measurement systems.

To further test this hypothesis, three additional statements were presented to respondents. First, city managers were asked if they believe program managers often fear that the results of performance measurement systems may be used to attack them by supervisors, City Councils, the media, or the public. Respondents strongly agreed or agreed at a rate of 59 percent, while only 28 percent strongly disagreed or disagreed.

City managers were also asked if they believe that if the results of performance measurement systems are not used to improve programs and services, they are not worth the cost of implementing them. While 75 percent of the respondents strongly agreed or agreed with this statement, 25 percent strongly disagreed or disagreed, indicating only weak support for this hypothesis.

Finally, Texas city managers were asked to indicate if they believe that performance measurement systems are useful only if they are easy and cost effective to implement. Responses varied widely to this statement. Indicating that cost and ease of implementation are important

factors to consider when considering the use of performance measurement systems, 53 percent of the respondents strongly agreed or agreed with this statement. Further, 42 percent strongly disagreed or disagreed, while 5 percent indicated that they didn't know. Table 5.4 illustrates the percentage of responses for each point on the Likert scale to each of these statements. The following statements were presented to survey respondents to determine if there are implementation barriers to the use of performance measures by Texas city managers:

- 5. Costs of performance measurement often exceed the value of implementing such a system.
- 6. Program managers often fear that the results of performance measurement systems may be used to attack them by supervisors, City Councils, the media, or the public.
- 7. If the results of performance measurement are not used to improve programs and services, they are not worth the cost of implementing them.
- 21. Performance measurement systems are useful only if they are easy and cost-effective to implement.

Table 5.4
Implementation Barriers To Performance Measures
N = 64

Statement	Percent Strongly Agree and Agree	Percent Strongly Disagree and Disagree	Percent Don't Know
5. Costs of performance measures usually provide accurate and valid indicators of quality and results.	38	42	20
6. Program managers fear performance measures may be used to attack them.	59	28	13
7. Performance measures are not worth the cost to implement if not used to improve programs and services.	75	25	0
21. Performance measurement systems are useful only if cost effective and easy to use.	53	42	5

The analysis of data for this working hypothesis indicates that there are implementation barriers to the use of performance measures by Texas city managers. Thus, **WH_{3b}** is supported.

Conceptual Barriers

WH_{3c}: Conceptual barriers limit the use of performance measures by Texas city managers.

Perhaps the most sensitive of the working hypotheses tested was to determine if conceptual barriers limit the use of performance measures by Texas city managers. In order to test this working hypothesis, a series of statements was prepared to evaluate the understanding Texas city managers have about what are appropriate measures of performance. Care was taken to assure respondents that answers to these questions would remain confidential and that only aggregate data would be presented. The performance measures used to evaluate the working hypothesis were selected from standards that have been developed by the International City/County Management Association. In addition, workload measures were also included in the survey to determine if respondents could accurately identify the difference in performance measures and workload measures.

Thirteen statements were presented on the survey and respondents were asked to indicate their opinions. Each of the responses were then categorized as either correct or incorrect and were used to determine if Texas city managers have a clear understanding of appropriate measures of performance. The results of the responses are shown in Table 5.5 below. The following statements were presented to survey respondents to determine if conceptual barriers to the use of performance measures exist among Texas city managers:

8. Most program managers are able to identify appropriate performance measurement criteria.
9. Tons of asphalt distributed per week is an appropriate performance measure of a City's street department.
10. Number of lane miles of streets reported to be in good condition is an appropriate performance measure of a City's street department.
11. Number of gallons of water treated per day for public consumption is an appropriate performance measure of a City's water treatment department.
12. Percentage of customers who rate their drinking water as satisfactory in appearance, taste, and odor is an appropriate performance measure of a City's water treatment department.
13. Percentage of blocks with sidewalks in satisfactory condition is an appropriate performance measure of a City's transportation department.
14. Percentage of citizens satisfied with the adequacy and condition of the sidewalks in their neighborhoods is an appropriate performance measure of a City's transportation department.
15. Percentage of citizens reached by public fire education is an appropriate performance measure of a City's fire department.
16. Number of incendiary fires and suspicious fires per 1,000 population is an appropriate performance measure of a City's fire department.
17. Time to control or extinguish a fire is an appropriate performance measure of a City's fire department.
18. Percentage of citizens who feel police are generally fair in dealing with them is an appropriate performance measure of a City's police department.
19. Number of traffic citations issued per officer each day is an appropriate performance measure of a City's police department.

20. Percentage of stolen vehicles that are subsequently recovered is an appropriate performance measure of a City's police department.

Respondents were first asked if they believe that most program managers are able to identify appropriate performance measurement criteria. Fifty three percent of the respondents strongly agreed or agreed with this statement, while 39 percent strongly disagreed or disagreed. The remaining 8 percent stated that they didn't know. The results of this question indicates that the respondents believe there are conceptual barriers to the use of performance measures. Additional statements were then presented to evaluate the respondents' own understanding of performance measures.

When presented with examples of workload measures, most city managers surveyed were able to distinguish them from performance measures. Three examples of workload measures were presented and respondents were asked if they believed these examples represented appropriate performance measures of a City's street department, water treatment department, and police department. First, they were asked if the tons of asphalt distributed per week is an appropriate measure of a City's street department. Only 9 percent agreed, with none of the respondents strongly agreeing, and only 2 percent reporting that they didn't know. Eighty nine percent of the respondents strongly disagreed or disagreed. This measure was clearly distinguishable as a workload measure rather than a performance measure.

Table 5.5
Conceptual Barriers To The Use Of Performance Measures
N = 64

Statement	Percent Correct	Percent Incorrect	Supports Hypothesis
9. Tons of asphalt per day is an appropriate measure of performance.	89	11	No
10. Number of lane miles of streets in good condition is an appropriate measure of performance.	54	46	No
11. Number of gallons of drinking water treated per day is an appropriate measure of performance.	66	34	No
12. Percentage of customers who rate drinking water highly is an appropriate measure of performance.	77	23	No
13. Percentage of sidewalks in good condition is an appropriate measure of performance.	38	62	Yes
14. Percentage of citizens satisfied with sidewalk conditions is an appropriate measure of performance.	64	36	No
15. Percentage of citizens reached by fire education is an appropriate measure of performance.	53	47	No
16. Number of fires per 1,000 population is an appropriate measure of performance.	19	81	Yes
17. Time to control a fire is an appropriate measure of performance.	64	36	No
18. Percentage of citizens who feel they are treated fairly by police is an appropriate measure of performance.	70	30	No
19. Number of traffic citations per day is an appropriate measure of performance.	77	23	No
20. Percentage of stolen vehicles recovered is an appropriate measure of performance.	63	37	No

The number of traffic citations issued per officer each day was also presented as a possible performance measure of a City's police department. This question received more positive responses than question number 9, however, there was still clearly an understanding by a majority of the respondents that this represented a workload measure rather than a performance measure. Sixteen of the respondents strongly agreed or agreed with this statement, while 77 percent strongly disagreed or disagreed. Only three percent of the respondents said that they didn't know. Respondents were also asked to state their opinions regarding whether the number of gallons of water treated per day for public consumption is an appropriate performance measure of a City's water treatment department. None of the respondents strongly agreed with this statement, but 32 percent agreed. Another 66 percent strongly disagreed or disagreed with this statement, while 2 percent indicated that they didn't know. It would, therefore, appear that there is less certainty about whether this represents a workload measure or a performance measure when compared to the two previous questions.

The next group of questions are all examples of performance measures that have been developed by the International City/County Management Association. The respondents were asked their opinions about whether or not these examples were appropriate performance measures for various departments within the city organization.

It is interesting to note that the responses to these statements results in a wide range of opinions. For example, when asked if the number of lane miles of streets reported to be in good condition is an appropriate performance measure of a City's street department, 54 percent of the respondents strongly agreed or agreed, while 40 percent strongly disagreed or disagreed, and 6

percent reported that they didn't know. The conceptual barriers become even more apparent when respondents were asked if percentage of blocks with sidewalks in satisfactory condition is an appropriate performance measure of a City's transportation department. Only 38 percent reported that they strongly agreed or agreed, while 58 percent strongly disagreed or disagreed.

Although a majority of Texas city managers generally provided correct responses to these statements, only two of the examples of performance measures received a significant number of positive responses that could be considered as evidence of a clear understanding by respondents of appropriate measures of performance. One statement was used to determine if respondents believe that the amount of time required to control or extinguish a fire is an appropriate performance measure of a City's fire department. A total of 64 percent of the respondents strongly agreed or agreed with this statement, while 25 percent strongly disagreed or disagreed. Eleven percent reported that they didn't know. When asked if the percentage of citizens who feel police are generally fair in dealing with them is an appropriate performance measure for a City's police department, 70 percent strongly agreed or agreed, and 23 percent strongly disagreed or disagreed. Similar results were reported for other statements on the survey regarding conceptual barriers to performance measures.

In addition to the survey statements, respondents were asked to provide examples of performance measures used in those cities that reported current use of performance measurement systems. The purpose of this was to allow the researcher to conduct content analysis on the documents submitted to determine if the measures used were, in fact, performance measures or if they were actually workload measures or other similar measures. Reporting the use of

performance measures that failed to meet the accepted definition of performance measures would indicate a conceptual barrier to their use.

Only 15 respondents provided examples of performance measurement systems used by their cities. Of those, 10 were clearly performance measures, while the remaining 5 appeared to be simply workload measures. Table 5.6 provides an example of performance measures used by one city's police department. This is an excellent example of how performance measures can be used to evaluate the quality and effectiveness of municipal services as well as planning for future resource needs of the department.

Analysis of the data was performed using simple descriptive statistics. Results of the analysis indicated that there are indeed conceptual barriers to the use of performance measures to evaluate the quality and effectiveness of municipal programs and services by Texas city managers. However, a majority of the responses to the statements presented in the survey indicated an understanding of appropriate measures of performance. Therefore, the working hypothesis is not supported by the data.

**Table 5.6
Police Department Performance Measures**

Effectiveness	Actual FY 93-94	Estimated FY 94-95	Adopted FY 95-96
Avg. Response time on Emergency Calls	4.90	4.85	4.50
Avg. Response time on All Calls	17.50	16.00	15.40
% Change in Violent Crimes Reported	-0.03%	-18.19%	-22.24%
% Violent Crimes Cleared	41.88%	43.62%	45.36%
% Change in Property Crimes Reported	-12.87%	-8.39%	-9.16%
% Property Crimes Cleared	12.80%	13.14%	13.47%
% Change in Patrol Availability Factor	6.98%	3.73%	1.53%
Patrol Availability Factor	34.74%	38.47%	40.00%

Population as an Indicator of Use of Performance Measures

***WH₄*: Cities with populations of 50,000 or greater are more likely to use performance measurement systems than cities with populations of less than 50,000.**

Because larger cities typically have management staff that are specialists in their areas of oversight, it is anticipated that these cities may be more inclined to use performance measurement systems. In addition, management staff in smaller cities tend to have overlapping responsibilities and may find that they have neither the resources nor expertise to effectively

measure performance. It is for these reasons that the researcher hypothesized that cities with populations greater than 50,000 are more likely to use performance measurement systems than cities with populations of less than 50,000.

To test WH_4 , the researcher reviewed the survey data relative to the cities reporting that they currently are using performance measurement systems. Although there is some question about whether all cities reporting use of performance measurement systems are actually using appropriate measures, the conceptual barrier was not considered when testing this hypothesis. It was determined that as long as the respondents thought they were using performance measurement systems, then that was adequate evidence of their use.

Only 20 respondents reported that they are currently using performance measures to evaluate the quality and effectiveness of municipal services in their cities. Of the respondents reporting use of performance measures, 11 were from cities with populations greater than 50,000, which represents 17 percent of all cities responding, and 9 were from cities with populations of less than 50,000, which represents 14 percent of all cities responding. Although the actual number of respondents using performance measures is greater in cities with populations greater than 50,000, the difference in numbers is not significant. Thus, the data does not support WH_4 , and it is therefore rejected.

All of the working hypotheses developed for this study were examined through the use of a survey of Texas city managers and a review of documents where use of performance measures were reported. The following table summarizes the results and findings of the survey:

Table 5.7
Research Results

Research Purpose	Working Hypotheses	Results
To examine support of performance measures by Texas city managers.	WH₁ : Texas city managers support the use of performance measurement systems to evaluate the quality and effectiveness of municipal programs and services.	Supported
To determine if Texas city managers are currently using performance measures to evaluate delivery of municipal programs and services.	WH₂ : Texas city managers are currently using performance measures to evaluate delivery of municipal programs and services.	Rejected
To identify relevant barriers to the use of performance measures by Texas city managers.	WH₃ : There are barriers to the use of performance measures by Texas city managers.	Supported
To distinguish barriers to the use of performance measures by Texas city managers.	WH_{3a} : Lack of support for national standards for performance measures limit the use of performance measures by Texas city managers.	Rejected
To distinguish barriers to the use of performance measures by Texas city managers.	WH_{3b} : Implementation barriers limit the use of performance measures by Texas city managers.	Supported
To distinguish barriers to the use of performance measures by Texas city managers.	WH_{3c} : Conceptual barriers limit the use of performance measures by Texas city managers.	Rejected
To determine if city size has an effect on the use of performance measures by Texas city managers.	WH₄ : Cities with populations of 50,000 or greater are more likely to use performance measures than cities with populations of less than 50,000	Rejected

Chapter 6 ***Summary and Conclusion***

Research Summary

The purpose of this study was to describe the attitudes and opinions of Texas city managers regarding the use of performance measures. The researcher sought to provide information that would indicate if Texas city managers support the use of performance measures to evaluate the quality and effectiveness of the delivery of municipal programs and services. In addition, the researcher wanted to determine if barriers to the use of performance measures exist, and if so, to identify those barriers. Finally, the study sought to determine if Texas city managers are currently using performance measures in their cities.

A review of the literature on the subject of performance measures was conducted to collect background information and to develop working hypotheses for the study. The literature revealed that Texas cities have been leaders in the development and use of performance measures by municipal governments throughout the United States. The literature also provided useful information regarding how performance measurement systems are structured and potential barriers to their use. The information obtained from the review of literature on performance measures was used to develop the following working hypotheses.

WH₁: Texas city managers support the use of performance measurement systems to evaluate the quality and effectiveness of municipal programs and services.

WH₂: Texas city managers are currently using performance measures to evaluate delivery of municipal programs and services.

WH₃: There are barriers to the use of performance measures by Texas city managers.

WH_{3a}: Lack of support for national standards for performance measures limit the use of performance measures by Texas city managers.

WH_{3b}: Implementation barriers limit the use of performance measures by Texas city managers.

WH_{3c}: Conceptual barriers limit the use of performance measures by Texas city managers.

WH₄: Cities with populations of 50,000 or greater are more likely to use performance measures than cities with populations of less than 50,000.

These hypotheses were evaluated by using a survey instrument that asked respondents to state their opinions to statements regarding performance measures. The survey utilized a Likert scale which included response categories of "Strongly Agree", "Agree", "Disagree", "Strongly Disagree", and "Don't Know". The responses were then analyzed using simple descriptive statistics by reporting the percentages of responses for each point on the Likert scale for each statement on the survey. In addition, document analysis was performed on documents submitted by respondents who reported that their cities are currently using performance measures. The purpose of conducting the document analysis was to confirm that those cities are, in fact, using performance measures, as well as to determine if the documents supported the working hypothesis that there are conceptual barriers to the use of performance measures.

The results of the research concluded that three of the working hypotheses were

supported by the data obtained from the survey. Texas city managers showed strong support for the use of performance measurement systems; however, the data also revealed that few Texas cities are currently using them to evaluate the delivery of municipal programs and services. Because of this, it was expected that the working hypotheses regarding barriers to the use of performance measures would reveal that such barriers do indeed exist. Texas city managers indicated that they support the development of national standards for performance measures and that cities should cooperate in their development. In addition, respondents indicated a conceptual understanding of performance measures, although the evidence of this was not very strong. Implementation barriers were clearly the principal barrier to the use of performance measures by Texas city managers.

Barriers to the use of performance measures that were identified by the survey included costs, fear of improper use of the information obtained from performance measures, and a lack of understanding of the differences between performance and workload measures. The research supported the working hypothesis that there are implementation barriers to the use of performance measures by Texas city managers.

Conclusion

This report confirms that Texas city managers have a desire to deliver high quality municipal services to their citizens. In order to do so, they must find ways to evaluate the quality and effectiveness of the delivery of municipal programs and services. Performance measures can provide the information needed to monitor and improve those programs and services as well as to help determine the resource needs of the organization. There is clearly support from Texas city

managers for developing performance measurement systems for use in their organizations. The challenge that faces them is to improve their understanding of the principals of performance measurement and to find ways to overcome the barriers to the use of performance measures. Doing so will better equip municipal governments to provide high quality, cost-effective services to their citizens.

As a result of this study, it is recommended that training be provided by those organizations developing performance measures to improve the conceptual understanding of performance measures by Texas city managers, and that methods to facilitate the implementation of performance measures be developed. Further research should then be conducted to evaluate these efforts.

Appendix B Cities Surveyed

Cities With Populations of 100,000 or Greater

Dallas	San Antonio	Austin	Fort Worth
Arlington	Corpus Christi	Lubbock	Garland
Amarillo	Plano	Irving	Laredo
Beaumont	Brownsville	Mesquite	Abilene
Waco	Grand Prairie		

Cities With Populations of 50,000 to 99,999

Wichita Falls	Midland	Odessa	Carrollton
San Angelo	McAllen	Tyler	Richardson
Killeen	Denton	Baytown	Galveston
College Station	Victoria	Bryan	Lewisville

Cities With Populations of 25,000 to 49,999

Harlingen	North Richland Hills	Temple	Missouri City
Round Rock	Eules	Sugar Land	Duncanville
DeSoto	Hurst	Haltom City	Texarkana
Grapevine	Edinberg	Lufkin	Rowlett
New Braunfels	Nacogdoches	Conroe	La Porte
Deer Park	Friendswood	McKinney	Kingsville
Flower Mound	Allen	Lake Jackson	

Cities With Populations of Less Than 25,000

Corinth	Everman	Mercedes	Spearman
Forest Hill	Silsbee	Grandbury	Kerrville
Carrizo Springs	Karnes City	Mansfield	Flatonia
Bridge City	McGregor	Sundown	Dalhart
Cedar Hill	Quanah	Dayton	LaMarque
Rockdale	Childress	Snyder	Livingston
Pearland	Port Neches	Southlake	Clute
Perryton	Hildago	Littlefield	Forney
Webster	Anson	Cisco	Petersburg
Hereford	Weimer	Henrietta	

Appendix C Survey Responses

All Cities
(N = 64)

Question Number	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
1	20	35	7		2
2	16	25	15	3	5
3	16	46	2		
4	3	37	12	4	8
5	3	21	21	6	13
6	11	27	15	3	8
7	20	28	14	2	
8	2	32	22	3	5
9		6	36	21	1
10	4	31	17	8	4
11		20	28	14	2
12	12	37	12	1	2
13	5	19	27	10	3
14	10	31	11	8	4
15	2	32	22	4	4
16	1	11	38	9	5
17	3	38	12	4	7
18	4	41	13	2	4
19	1	9	30	19	5
20	3	37	13	6	5
21	2	32	22	5	3
22	Yes = 20		No = 44		

Cities with Populations of 100,000 or Greater
(N = 11)

Question Number	Stongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
1	8	3			
2	4	6	1		
3	6	5			
4		8	3		
5		4	4	1	2
6		7	4		
7	5	4	2		
8	1	5	4	1	
9		1	7	3	
10	1	6	4		
11		6	3	2	
12	4	5	2		
13	3	3	4		1
14	3	5	3		
15		6	4		1
16		4	7		
17		9	1		1
18		8	2		1
19		3	5	2	1
20	1	9			1
21	1	3	7		
22	Yes = 8		No = 3		

Cities with Populations of 50,000 to 99,999
(N = 13)

Question Number	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
1	4	8	1		
2	4	6	1	1	1
3	3	9	1		
4	1	6	3	1	2
5	1	7	3	1	1
6	5	4	2		2
7	4	5	4		
8	1	7	3	1	1
9		2	6	5	
10	2	9		1	1
11		4	6	3	
12	4	9			
13	1	6	3	3	
14	4	6	1	2	
15		7	4	1	1
16	1	3	7		2
17	1	9	1	1	1
18	1	10	2		
19		3	5	5	
20	1	9	2		1
21	1	7	3	2	
22	Yes = 3		No = 10		

Cities with Populations of 25,000 to 49,999
(N = 19)

Question Number	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
1	4	10	4		1
2	4	5	6	1	3
3	4	14	1		
4	2	11	3	2	1
5	1	6	7	4	1
6	2	9	4	2	2
7	3	9	6	1	
8		9	8	1	1
9		1	10	8	
10		8	5	6	
11		3	10	6	
12	3	13	2	1	
13	1	6	9	3	
14	2	11	1	3	2
15	2	8	5	3	1
16		3	9	4	2
17	2	7	5	3	2
18	2	10	4	1	2
19	1		11	6	1
20	1	11	3	3	1
21		10	7	1	1
22	Yes = 6		No = 13		

Cities with Populations of Less Than 25,000
(N = 21)

Question Number	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
1	4	14	2		1
2	4	8	7	1	1
3	3	18			
4		12	3	1	5
5	1	4	7		9
6	4	7	5	1	4
7	8	10	2	1	
8		11	7		3
9		2	13	5	1
10	1	8	8	1	3
11		7	9	3	2
12	1	10	8		2
13		4	11	4	2
14	1	9	6	3	2
15		11	9		1
16		1	15	4	1
17		13	5		3
18	1	13	5	1	1
19		3	9	6	3
20		8	8	3	2
21		12	5	2	2
22	Yes = 3		No = 18		

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