

An Analysis of Project Evaluation
Methodologies in Local Government
from a Cost-Benefit Perspective.

by

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ABSTRACT

The methodology used by local governments to choose among capital development projects is critically important as it affects efficient social resource allocation. This paper examines current evaluation practices in the larger American cities and assesses them in terms of cost-benefit criteria. Data is gathered through survey responses of 128 project evaluators from the various cities.

PERSONAL VITA

Brian J. Barrie is a Flint native and a 1974 graduate of Carman High School. He received a Bachelor of Arts degree from The University of Michigan in 1978 and is currently a candidate for the Master of Public Administration degree from The University of Michigan-Flint.

Where thrift is in its place,
and Prudence is in its place,
... there the great city stands.

- Whitman

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CHAPTER I
INTRODUCTION

Much of the responsibility of American government centers on the provision of public goods and services which purport to maximize social benefit. To accomplish such an ambitious goal in the face of limited resources, governments must properly choose between a number of possible alternatives. The problem is particularly acute for local governments which, by law, must balance revenues and expenditures. This paper examines how cities make these decisions and assesses them in terms of cost-benefit criteria. Since so little is known about what is done in the field of local project evaluation, the study is a "first approximation" of current practice rather than a comprehensive description.

The study is relevant since efficient use of resources is always an objective. In particular, it has important implications in these days of increasing fiscal restraint and public accountability, and diminishing federal assistance. "Inefficient budget making impedes the flow of vital services and contributes to their atrophy in an already strained organism: the contemporary American city."¹ It should be noted that the behavior of local

evaluators and other officials has been relatively unexplored to date. Real progress in the field will only come from detailed analyses of the problems and a concerted effort to achieve a workable middle ground between the theory and the practice. This study is a first step toward reaching that goal.

Before proceeding with the analyses of this study, it is necessary to clearly establish and define the scope of the problem at hand, and show how it is addressed in this research and how it is treated in the literature. This chapter provides such a background. The objective is to outline and provide a brief overview of the research, and thus provide a theoretical foundation from which to proceed. First, the problems of project evaluation in local government are briefly discussed to more clearly define the relevance and focus of this study. Second, a historical perspective is provided through a review of the current body of literature.

The Problem Statement

Effective project evaluation is a critical element in the successful utilization of local resources. It is also a highly complex and technical issue. Therefore, we turn our attention toward better defining the specific problems of interest to this research.

Many American cities are using newly-developed financing techniques to undertake extensive and expensive

renewal projects. Areas of decay are being torn down and replaced with modern projects, while the remaining buildings are subject to large-scale renovation. This trend is accelerated due to increased public attention and as a reaction to improving local economies. Still, the number of urban projects competing for funding far exceeds the limits of available resources. Therefore, the evaluation techniques used by city officials to determine the viability of projects are critically important. Since these projects can affect the future development of a city, the importance of these choices cannot be understated.

Research provides useful techniques to optimally assess projects. Cost-benefit and cost-effectiveness analyses are perhaps the most widely accepted techniques in this area. Yet problems persist in areas thought to have been adequately addressed by these methodologies. It is possible that city planners and officials are deviating from the "accepted" theoretical practices in their evaluations and assessments of development projects.

If the techniques used by city officials to determine future projects are inappropriate or are improperly used, then the resulting development may be ill-advised or suboptimal. If the techniques are not consistent among projects, then comparability is sacrificed and development proceeds in a floundering fashion. When assessments become problematic, cumbersome, or costly, they may be underutilized or avoided.

This study addresses the issues of project evaluation and selection criteria as they relate to the 128 largest cities of the United States: those with a population of 125,000 or more. These cities appear more apt to undertake the types of projects which would lend the greatest importance to the evaluation process. It is likely that the problems experienced by these larger cities are mirrored to a lesser degree in the efforts of smaller cities. Hopefully, the lessons learned from this research will remain essentially valid for the entire spectrum of towns.

A number of variables can affect the final quality of an evaluation. These may include city size, form of local government, level and quality of evaluation resources, and the quantity of projects undertaken in a given jurisdiction. So far, the extent that these variables may effect the evaluations being done has not been measured. This study fills in some of the informational void that currently exists. The movement toward urban development can be enhanced if the methodologies can become more feasible and consistent.

A Review of Current Literature

We complete the background information with an examination of the relevant body of literature. To provide an accurate assessment of project evaluation procedures used by the sample cities, we need a better understanding of two underlying theories. The first is the theory of traditional

welfare economics, which develops the idea of a Pareto or economic efficiency criterion. The second is the cost-benefit methodology, which provides a practical framework for project analysis. This section introduces these theories and the various approaches present in the literature.

The idea of Pareto efficiency is the yardstick by which the allocation of public resources is measured. This condition is defined as "[a] given economic arrangement is efficient if there can be no rearrangement which will leave someone better off without worsening the position of others."² Economists use this criterion to describe a situation where society achieves a "first-best" allocation of resources.

A first-best allocation takes place in an environment which is constrained by assumptions, such as a small, open economy, perfect consumer information, clearly defined property rights, and a perfectly competitive market. Unfortunately, many of these assumptions fail to hold when placed in a "real world" setting. As a result, projects are usually evaluated in a "second-best" environment.

Project evaluation is important because society does not always operate under Pareto optimal conditions. When market failures are present, society must strive for a "second-best" position. With the previous assumptions no longer in effect, the appropriate methods of project evaluation are likewise altered.

Once the economic environment is assessed and the relevant efficiency criteria determined, we can utilize evaluation methodologies to ensure an optimal choice. Perhaps the most popular evaluation methodologies are those suggested in the cost-benefit and cost-effectiveness literature. Many sources are available which identify the basic elements of a cost-benefit analysis (Musgrave and Musgrave, 1973; Thomas and Chapman, 1980). Chapter II gives a summary of these procedures.

Cost-benefit procedures are generally tailored to meet specific evaluative circumstances. For example, Lal identifies three main cost-benefit procedures which are used by different organizations for their particular evaluations.³ First is the set of procedures defined by the United Nations Industrial Development Organization (UNIDO) which includes the work of Harbinger and others. The Organization for Economic Cooperation and Development (OECD) manual, developed by Little and Mirrlees (1968, 1974), represents a second type of formalized evaluation methodology. Lal identifies the works of Bruno (1967) and Kruger (1966) as a third type of procedure. Each of these approaches is a standardized system of evaluation designed to account for specific market circumstances.

Other authors present texts which offer procedural corrections for cost-benefit analyses for use in various situations (Broadway, 1975; Diewert, 1983). While most relate to specific methods of adjusting market prices to

provide socially efficient results, not all are applicable to differing scenarios. "...[I]t is important to remember that differing prescriptions on alternative evaluation procedures will most often be due to differing implicit assumptions about the current and, more importantly, the future economic environment."⁴

Much of the cost-benefit literature addresses the problems of measurement, particularly in the presence of specific market distortions. These studies address the impacts of different types of projects or different types of outcomes (Nagel, 1983), international trade distortions (Lal, 1974), determination of optimal shadow prices (Nas, 1984), and distributional considerations (Christiansen, 1981). They represent a fraction of the literature devoted to theoretical approaches to cost-benefit analysis in the presence of market improprieties and imperfections.

Despite the abundance of literature in this area, problems still exist. As Lal points out, "These theoretical problems are compounded by practical ones."⁵ As a result, there is a substantial body of literature attacking cost-benefit analysis from a philosophical perspective (Wharton Murphy, 1979; Oelschlaeger, 1979). These authors maintain that the methodology is inherently unworkable, because it is based on restrictive assumptions and untenable comparisons of personal utilities. The studies do not provide any alternative frameworks on which to base social choice, however.

The literature on cost-benefit analysis and welfare economics has a significant deficiency of studies which address the topics of interest to this research; namely the environment and practice of project evaluation from a local government perspective. Perhaps this accounts for the "disparity between rationalistic project selection processes and actual agency procedures."⁶

Rarely are the theories and methods of cost-benefit analysis applied directly to the problems of state and local investment decision making. This study follows from criteria suggested for federal project evaluation (Anagnoson, 1982) and from an analysis of local evaluation problems (David, 1979). In addition, other studies are used as models for the study's structure and the development of an efficiency index that will be used later (Nas, 1979; Titus, 1981; and Nas, Tuckman, and Caldwell, 1983).

David addresses the issues of this study most directly, so her approach is most influential on the research methods and topics in this paper. She identifies many of the problems inherent in local project evaluation and outlines why these problems are unique to the local situation.

To assess the environment and practice of local analysis, elements of all these disciplines are needed. Each provides its own insight into the nature of evaluation and the necessity of efficient outcomes. It is important that the elements now be brought to bear on the procedures which most affect the individual: those of the local

government. As David Points out, "In all, although benefit-cost analysis is undoubtedly more difficult and expensive for state and local governments, there are no inherent reasons why its proper use should not improve the investment decisions of all levels of government."⁷

Plan for Future Chapters

Chapter II introduces the basic elements of a cost-benefit analysis. The purpose is to provide background information for the convenience and understanding of the reader. In Chapter III, we turn to the determination of the evaluation practices of American cities. A framework for this purpose is presented to provide a foundation for the hypotheses and methods of the study. In this chapter, the pertinent variables are identified and defined, and the methods of obtaining the necessary data from the cities are described.

The data is analyzed in Chapter IV where the hypotheses regarding the current state of evaluation are tested. The conceptual model used to guide the research is tested for validity. At this point, the study will have the information necessary to draw conclusions about the relationships between the local evaluations and the underlying theory to see if a gap indeed exists. Recommendations on how current practices might best be improved are offered in Chapter V.

CHAPTER II

A REVIEW OF COST-BENEFIT ANALYSIS

On the most elementary level, cost-benefit analysis is a simple procedure that is commonly used every day. Each purchase we make is a result of this type of analysis. We compare an item's value against its cost, and if it meets our approval, we buy it. This is often a subconscious process unless outside factors enter the picture. This chapter examines this process and the elements that are considered when making spending decisions. First, it identifies how various types of projects and budgets effect the decision making process. Second, it explores the decision criteria that are used and under what circumstances they are appropriate. This is followed by a brief review of the many ways that the various costs and benefits are measured. Finally, special problems in providing an optimal cost-benefit analysis are discussed.

It is important to remember that cost-benefit analysis is a direct descendant of the theory of welfare economics. It attempts to achieve the most optimal allocation of resources given the present set of constraints. Appropriate decision criteria change as the constraints change, therefore, we must be conscious of the project's environment before we can determine how to choose among alternatives.

A government facing a "fixed" budget (eg. it has only

\$1 million to spend on a given project) will attempt to maximize the difference between total benefits and total costs.⁸ In the situation where a combination of projects may be chosen, the government will strive to maximize total benefit. In this case, it has two alternatives. It can rank the projects in terms of the ratios of benefits to costs (B/C), or in terms of rates of return ($B - C/C$). A small budget should choose the projects with the greatest ratios, while a large budget may choose any projects with ratios greater than one (1).

The decision criteria are different when a government operates with a variable budget, because opportunity costs must now reflect foregone private investment, as opposed to simply accounting for foregone public investment. When evaluating divisible projects, the government must attempt to maximize the difference between the total costs and benefits of both public and private projects. To do so, a government will undertake projects up to the point where the last dollar spent in either sector is the same. This is where the B/C ratios are equal to one. When combinations of projects are evaluated, we assume that B/C ratios are equal to one, therefore, the public sector will undertake all projects with ratios greater than one.

Once the appropriate decision criteria are determined, it is necessary to measure the various costs and benefits. For the purposes of evaluation, the measurements are divided into certain categories. The specific type of cost or

benefit will affect its inclusion in the analysis.

Initially, costs and benefits can be classified as real or pecuniary. Real benefits accrue to the final consumers of a project. Pecuniary elements result from price changes that occur in the local economy due to the inclusion of the project. Pecuniary measurements are generally omitted from the analysis as they do not represent a gain to the society: gains in one sector are offset by losses in another. If a project diverts revenues from one part of the local jurisdiction to another, there is no gain to the area as a whole. Pecuniary changes are relevant only insofar as they affect distributional considerations.

Real costs and benefits can be subdivided into separate groups. They may be direct or indirect, tangible or intangible, final or intermediate, or inside or outside. The particular type is relevant as it determines the manner in which the cost or benefit is measured. For example, a direct cost may be readily apparent and available, but an intangible cost must be estimated through the determination of a "shadow price." Indirect and outside effects are generally more difficult to identify, and measurements must be derived to account for "spillover" and "externality" effects.

A number of problem areas are frequently encountered in cost-benefit analyses. Aside from the determination of optimal prices of costs and benefits, the topics of weighting, risk, and discounting deserve special mention.

They are important considerations in the practice of cost-benefit analysis.

Problems arise when projects differ in their resource (income) distribution implications. Often, governments wish to use projects to achieve a given pattern of redistribution. In this case, a system of special weights is used to alter the final output of the evaluation, thereby enhancing those projects which best accomplish this objective. Both ethical and practical considerations enter when such weights are used.

First is the question of whether such weights should be used at all. This is generally a political determination and lies outside the theory of cost-benefit analysis. In addition to resource distribution complications, there are optimal tax implications as well as other political impacts to consider. Secondly, if we decide that the use of distributional weights is appropriate, then we must decide how to optimally determine the weight schedule. Each schedule will have a different distributional impact.

The presence of risk may also complicate the evaluation process. A highly beneficial but risky project may require a different evaluation than a modestly beneficial but "safe" project. Comparing projects with differing levels of risk requires an additional weighting system. We again encounter the problems inherent in the use of such a practice.

Finally, we must balance present consumption with potential future consumption. Benefits which accrue many

years in the future are felt to be less valuable than equivalent costs which have an immediate impact. Historically, the value of the dollar has dropped over time. so this time element must be taken into account in the evaluation of projects. This is done by "discounting" future costs and benefits to facilitate a comparison in present value figures.

Two problems are immediately evident. First, the future is difficult to predict. Therefore, there is no sure method of forecasting future conditions with any degree of assurance. Secondly, the rate that costs and benefits are discounted can greatly affect the final outcome of an evaluation. Since there are no natural laws governing the choice of optimal discount rates, their selection is often ambiguous and difficult. Theories on optimal discount rates have been advanced for specific circumstances, but none can be generalized for common use.

This chapter has provided an abbreviated examination of the elements in a cost-benefit analysis. While an explanation of the nuances of the methodology would require a much deeper treatment, this chapter is intended to offer a background sufficient for understanding the research to follow. Basic cost-benefit analysis is a simple procedure. To a certain degree, we do it all the time. However, when time frames, market imperfections, and other considerations come into play, more sophisticated measurements are needed to optimally assess projects.

CHAPTER III

THE THEORETICAL FRAMEWORK

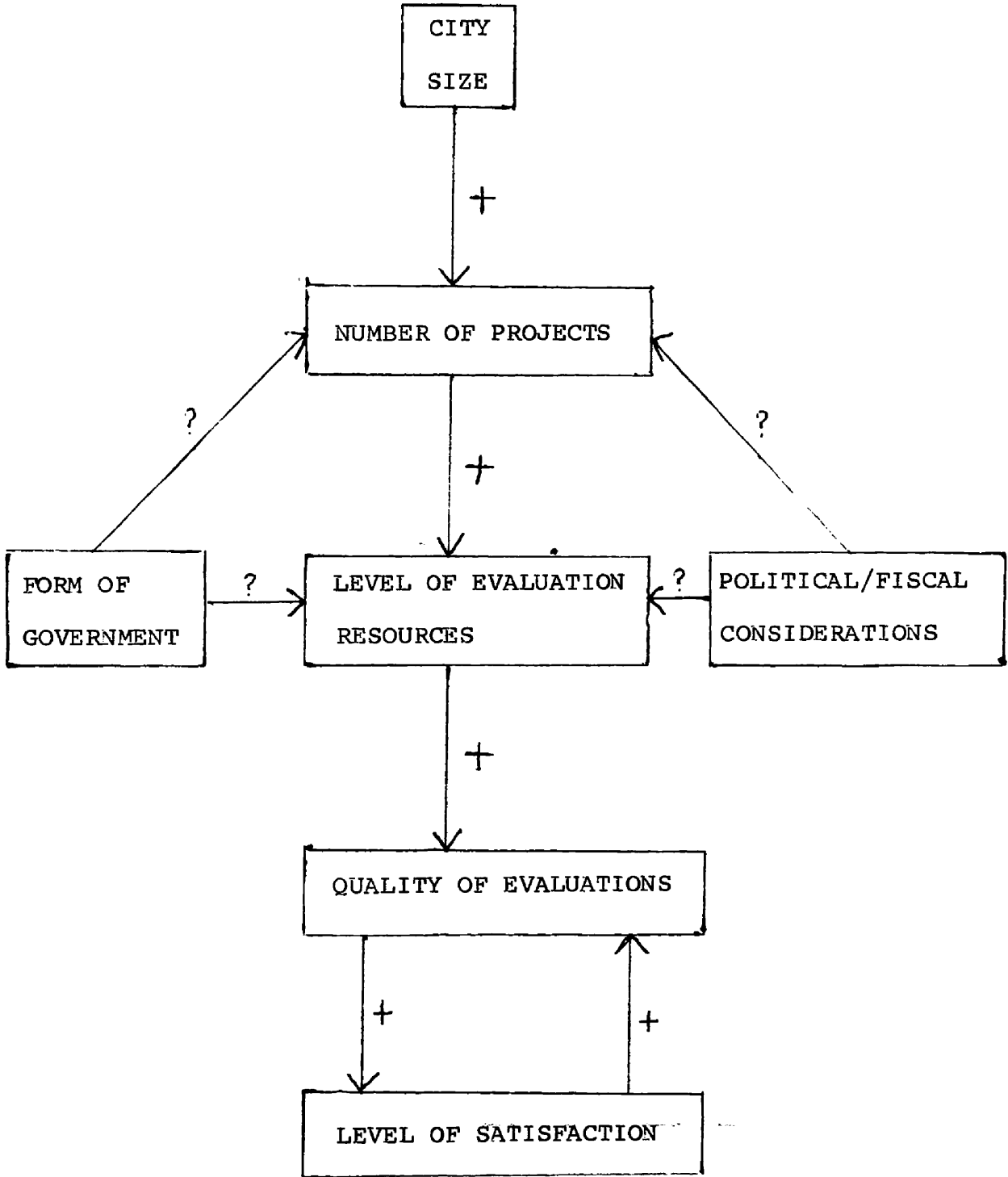
This chapter describes the structure of the research project and presents its underlying theories and assumptions. We begin by examining the conceptual model, which is largely based on the existing literature, and by operationally defining the variables. The model illustrates the relationships between the variables. Next, the research hypotheses are listed and justified. Finally, the methods used to gather the necessary data are explained. Overall, the chapter provides the theoretical framework from which the research proceeds.

The Conceptual Model

Local evaluation criteria often differ by degrees from those suggested in the literature. A number of the components that influence the final choice are presented in the conceptual model in Diagram 1. The model is a vast simplification of the many interrelated elements which determine local assessment procedures. It considers the impact of variables such as city size, number of capital projects undertaken, level of evaluation resources, form of government, political or fiscal considerations, and satisfaction with current methodologies, on the final

Diagram 1:

The Conceptual Model



evaluation output. Naturally, many other factors, such as historical precedent or contractual constraints, might also be considered, but these shall remain outside the scope of this study. The model is constructed to facilitate a better understanding of the research.

The center boxes of the model represent the chief line of influence. These are the strongest or most direct relationships. Intervening variables, shown in the side boxes, have more ambiguous impacts.

The initial variable in the model is the size of the cities in the sample population. For the purposes of this study, this is determined by the 1980 census data as published by the U.S. Census Bureau. City size is expected to effect the number of development projects undertaken by a locale most directly, due to the greater aggregate levels of resources at their command. Larger populations might proportionately raise the levels of public facilities and services demanded. Since this study concentrates only on the larger cities and does not provide a sample of smaller cities for comparison, this relationship will be difficult to sufficiently establish.

The "number of projects" refers specifically to the volume of projects evaluated during the calendar year 1984. Since the study is concerned with relative levels, as opposed to specific numbers of projects, estimates are acceptable. To simplify the survey, the types of capital

projects to be included in the count remains undefined. This is done to avoid excluding projects which might demonstrate a regional bias.

The next relationship in the model indicates that cities undertaking a large volume of projects can be expected to devote a greater level of resources to evaluation. While this is not set out explicitly in the literature, it seems a logical extension. This relationship should remain essentially valid despite any economies of scale which might exist. Note that it is entirely possible that city size directly influences the level of evaluation resources independently of the number of projects undertaken. It is more likely, however, that unless a city is evaluating many projects, it is not necessary to have extensive evaluation capabilities.

The level of resources can be regarded in two ways. The first is the actual budget commitment to evaluation services. In the absence of such actual budget information, which would be complex to analyze and difficult to obtain, a proxy measure might be the priority that evaluations receive in the budgetary process. This might also be reflected in the sizes of evaluation staffs. Secondly, qualitative considerations may be taken into account. Personnel with higher levels of training or practical experience are assumed to be better than those with less. Operationally, these are determined through survey responses.

The argument continues that if cities allocate a

greater level of resources to project evaluation (measured both quantitatively and qualitatively), they should realize a higher quality of assessment. This is easily the key relationship in the model. If each variable in the model has a positive influence on the succeeding variable, then this could have substantial implications on how to ultimately improve the procedures in these cities.

As in any research, quality is a troublesome concept to accurately measure. In this instance, the quality of evaluation is determined by how well the procedures compare to the economic principles established in cost-benefit and Pareto criteria. The closer the local evaluations are to these economic requirements, the more likely they are to be done in an efficient and socially optimal manner.

To determine the quality of evaluations done by the sample cities, an "efficiency index" is developed from the responses given in the survey regarding the types of measurements normally included in an evaluation. The higher the efficiency index score, the greater the economic analysis in the evaluations. Cities with higher index scores are considered as having "better" evaluation procedures.

The evaluator's satisfaction with the methodologies in use is likely dependent upon the quality of evaluation being done. A truly high quality evaluation should lead to fewer problems and should result in a more successful project. In addition, the level of satisfaction might also have a

feedback effect on the quality of evaluation, since an evaluator who is more satisfied with the procedures at his or her disposal may be more willing to work to overcome any problems that might surface along the way.

Project evaluators in the sample cities are asked to objectively rate their satisfaction with the procedures they use. Unfortunately, this produces a subjective measurement of satisfaction. Inasmuch as satisfaction is not a key variable in the model, this subjectivity is acceptable.

The simplicity of the model is confounded by the ever-present political influences which are inevitable in any study involving government. The form of the local government may well have an impact on the final quality of the evaluation procedure, as will other political and fiscal considerations. These intervening variables will likely effect the number of projects undertaken or the level of evaluation resources more directly through the budgetary process, rather than on the evaluations themselves.

The form of the local government is easily determined, although semantic difficulties often arise. Other political and fiscal factors, however, are frequently more complex and more difficult to identify. The intricate political framework present in large cities further complicates these variables and may often take precedence over analytical considerations. This study takes a cursory look at these variables, but will leave their quantification and analysis for future political science research.

The conceptual model offers an analytical perspective to the research. It might easily have been written out as a mathematical formula with the quality of evaluation being a function of weighted indices of the variables. However, for the purposes of conceptual clarification, this is not necessary.

The Hypotheses

Seven hypotheses are advanced in Table 1 which will serve as the focus of the study. They have been developed from ideas established in the literature, from the relationships defined in the research model, and from an analysis of the factors necessary to validate the research. This list of hypotheses has been selected from a vast array of possible topics and limits the study to the most pertinent. The hypotheses are:

1. The larger American cities will tend to have proportionately larger and more highly trained project evaluation staffs and will devote a greater level of resources to the evaluation of an elevated level of urban development projects. The hypothesis addresses the initial relationship of the conceptual model. It is based on an assumption that these cities undertake more projects, and therefore, they perform more evaluations. The line of reasoning follows that in producing more evaluations, these cities are likely to devote a greater level of resources to the evaluations and will recruit more highly trained staffs. If this holds true, these staffs might also be expected to perform more sophisticated assessments.

perform more sophisticated assessments.

The direct relationship between city size and levels of evaluation resources and numbers of projects can be circumvented if the local governments subcontract their evaluations to outside agencies. This procedure does not necessarily invalidate the propositions of the hypothesis, because these outside agencies act as surrogates for governmental evaluation employees, and for the purposes of this study, the distinction is moot.

2. The evaluations produced by larger cities are not incorporated into the final decision-making processes on a consistent basis, due to a variety of political and procedural complications. The previous circumvention becomes even less important if the second hypothesis holds true. If the evaluation recommendations are not consistently incorporated into the decision-making process, then it is of little consequence whether the evaluators are on the government payroll or work for an outside agency.

3. Urban project evaluations tend to reflect the more easily quantified costs and benefits. Indirect and intangible factors, in particular are neglected. Much of the literature critical of evaluation techniques, particularly cost-benefit analyses, warn of the distortions that occur when only easily quantified measures are used in a social analysis. Local governments can easily fall into this trap, as it can greatly simplify the evaluation process. This hypothesis highlights the importance of

considering the effects of all factors in an evaluation, even if quantification is difficult or done by approximation.

4. Project evaluations produced by larger cities reflect only the costs and benefits which accrue to the local constituency or that affect the local jurisdiction. External costs and benefits are generally ignored. A significant qualitative critique of current methodology centers on the tendency of measurements to be parochial in nature. It is politically expedient to keep the "locals" happy, so naturally, local governments tend to overvalue and rely on local impacts. Often, the costs and benefits which accrue outside the jurisdiction are ignored. Projects are then either over- or underproduced from a social perspective. Optimal efficiency is sacrificed. Should the hypothesis hold true, it would reflect badly on the quality of evaluations performed in large cities.

5. The evaluations under study are not so sophisticated as to address such social concerns as opportunity costs of resource withdrawal, price distortions in the local economy, and income redistribution considerations. Again, the cities can fall victim to the urge to take short cuts in their evaluations. If included at all, these social factors are often misread. For example, opportunity costs are frequently not factored into labor figures, since the project reduces unemployment. However, instances of cyclical unemployment may require the

inclusion of an opportunity cost factor. Clearly, overall quality of an evaluation is affected by these elements.

6. There is little consistency among large cities in their use of discount rates. These rates are often varied to allow certain projects to appear as desirable as possible. An abundance of research concerning the use of social discount rates has served to make practitioners more cognizant of including such factors into their evaluations. The increased use, however, does not ensure that they are being used properly or optimally. Even minor adjustments in the discount rate can have a major bearing on the potential attractiveness of a project. This study wishes to investigate the current practice in this area and its impact on the quality of the evaluations

7. Complexities and ambiguities in the evaluation procedures of large cities will lead to a dissatisfaction with those techniques. The hypothesis stems from a suspicion that, despite recent advances, evaluators are still dissatisfied with the procedures and methodologies at their disposal. A causal relationship cannot be established a priori since these elements may be interrelated.

A better working knowledge of the effects of the intervening variables is needed. They are included in the model as an acknowledgement of their presence and to better ascertain the level and direction of their impact.

Table I:
List of Research Hypotheses

H₁: The larger American cities will tend to have proportionately larger and more highly trained project evaluation staffs and will devote a greater level of resources to the evaluation of an elevated level of urban development projects.

H₂: The evaluations produced by larger cities are not incorporated into the final decision-making processes on a consistent basis, due to a variety of political and procedural considerations.

H₃: Urban project evaluations tend to reflect the more easily quantified costs and benefits. Indirect and intangible factors, in particular, are neglected.

H₄: Project evaluations produced by larger cities reflect only the costs and benefits which accrue to the local constituency or that affect the local jurisdiction. External costs and benefits are generally ignored.

H₅: The evaluations under study are not so sophisticated as to address such social concerns as opportunity costs of resource withdrawal, price distortions in the local economy, and income redistribution considerations.

H₆: There is little consistency among larger cities in their use of discount rates. These rates are often varied to allow certain projects to appear as desirable as possible.

H₇: Complexities and ambiguities in the evaluation procedures of large cities will lead to a dissatisfaction with those techniques.

The Methodology

In this section, we describe the methodology used in the conduct of this research. We outline the selection of the sample population, the sampling tool and procedures, and the methods of compiling and analyzing the data.

1. The Sample Population

The sample population includes all U.S. cities with a population of 125,000 or more. These cities are preferred as they are the most likely to undertake significant numbers of capital development projects. Due to time and budget constraints, the research is limited to the 128 cities that meet the population requirements. The next smaller cohort begins to include mostly "mid-sized" cities, which demonstrate different circumstances involving project evaluations. The types of projects undertaken by these cities might easily change the parameters of the research. The numbers of cities available for study at each lower cutoff point grows enormously, and a reduction of the limit to the 100,000 level would have doubled or tripled the sample population. A list of the cities included in the study is presented in Appendix 1.

2. The Measurement Tool

A questionnaire is developed to serve as the measurement tool for the research. Since no previous measurement tool was available that adequately addressed the necessary topics, this survey was designed. A copy of the questionnaire is presented in Appendix 2 along with the

accompanying cover letter and instruction sheet.

The Urban Project Evaluation Questionnaire (UPEQ) is designed to be as simple as possible to enable the respondent to reply quickly and easily. Most questions call for a discrete, multiple choice answer. Unnecessary and trivial questions are omitted in an effort to ensure the highest possible response rate. The survey can easily be completed in ten minutes, and it allows the opportunity for further elaboration and explanation if the respondent so desires.

The format of the survey places the less threatening and easier to answer questions at the beginning. These lead into questions of a more sensitive nature, although most confidential questions (eg. budget information or salary levels) are avoided. The questionnaire concludes with the more abstract and open-ended questions. Again, it is designed to compel the respondent to answer as many questions as possible.

The UPEQ is divided into three sections. The first addresses general topics, such as the environment of the evaluations (form of government, staff levels, etc.), the number of evaluations, and their priority. Part II identifies specific types of costs and benefits and asks the frequency that each is normally used in an evaluation. Part III allows for a free discourse on the problem areas of evaluation, or comments and suggestions regarding the research.

The final portion of the UPEQ asks for optional information about the respondents for the purposes of a possible follow-up telephone interview. These interviews, however, were subsequently dropped from the research, because in-depth data on any single city was not needed.⁹

A questionnaire is sent to each city in the sample. Since local government structures vary from city to city, it is necessary to determine individually the most appropriate city official. In the majority of cases, this is the city manager or the mayor's office. These people are requested to forward the questionnaire to the appropriate person if necessary. The officials and their addresses are compiled from an extensive review of each city's telephone directory. The final mailing list is presented in Appendix 1.

3. Statistical Analysis

To compile the data for analysis, each question of the survey is assigned a variable name and the responses are numerically coded. As the surveys are returned, the coded values are entered into a record using the "Data Base III" computer software. This program is also used to fashion that data into a form acceptable for statistical analyses.

Statistical analyses are performed using the "Statistical Package for the Social Services" (SPSS) computer program. The SPSS-PC version is the specific form of the program used. It provides the frequencies and descriptive statistics for each of the variables, as well as cross tabulation analyses for some of the ordinal and

grouped variables and both bivariate and multivariate regression analyses.

SPSS is used to compile an "efficiency index" for each city in a variable called "IISum." The index is a summation of the values for the responses to the questions in Part II of the survey. However, question #5, dealing with the use of a multiplier to determine benefit levels, is omitted due to an ambiguity surrounding its appropriateness and concerns of frequent misuse. In addition, the response to question #4 is given a negative response, since economic theory dictates the exclusion of revenues, which are diverted from other sectors of the local economy, from the aggregate level of benefit.

Symbolically, the determination of the efficiency index can be shown as:

$$IISum = III1 + II2 + II3 - II4 + II6 + II7 \dots III8.$$

where III1 is the value to the response to question #1 in Part II, II2 is the value for the response to question #2 of Part II, etc. The responses are given four (4) points for an "Always" response, three (3) points for a "Usually" response, two (2) points for an "Occasionally" response, one (1) point for a "Seldom" response, and zero (0) points for a "Never" or a missing response. A perfect response for the index is sixty (60) points

All of the values are weighted equally as it is felt

that the index is self-weighting. While the individual measurements of costs and benefits identified in Part II may vary in relative importance to the evaluation, special weightings are omitted, because the truly important factors would likely be used most often. Thus, the responses would reflect any necessary weightings themselves. Naturally, further analysis might reveal a more equitable scheme of relative weighting that would improve the accuracy of the index.

CHAPTER IV

EMPIRICAL RESULTS

The data obtained from the UPEQ is compiled, analyzed, and presented in Chapter IV. Initially, we examine the portion of the sample population that responded to the questionnaire. Next, the evaluation problems identified by the respondents are outlined and discussed. Finally, the hypotheses are tested and the relationships in the conceptual model are examined. The chapter provides the information necessary for the conclusions reached in the final chapter.

The Results

Of the 128 surveys that were mailed, five were returned for insufficient postage or unmailable addresses. Four cities wrote to say that the questionnaire did not apply to the situations in their cities. Two cities had no formal evaluation procedures. One city felt it had no projects underway which qualified and another two returned completed questionnaires too late to be included in the analysis. So of the 63 cities accounted for, there were 52 responses sufficient for inclusion in the analysis. This sample represents approximately 45 percent of the population in question. There appears to be no significant regional bias in the geographical distribution of the responses. Cities from across the country took part in the survey.

The questionnaires were completed quite thoroughly,

particularly the first two sections. Most respondents failed to include data on discount rates, or they merely stated that these varied among projects. About half gave the information needed for a follow-up interview. Many had indeed been forwarded for completion.

Some cities sent extensive documentation along with their completed questionnaires. Two cities sent copies of their evaluation worksheets and instructions, while a third sent their project worksheet and a 130-page booklet outlining their Capital Improvements Program. Appendix 3 contains examples of some of this material, which illustrates the varying methods cities may use to evaluate projects.

Only 16 cities took the opportunity to highlight problem areas in Part III, but these generally went into great detail about their situations. The responses came from all areas of the United States, so these problems might easily be generalized to other cities. The problems faced by these cities tend to fall into certain categorical groups.

One frequently mentioned problem deals with the funding of projects. Although this problem surfaces in virtually every type of project, and despite the fact that evaluation methodologies are not usually concerned with how funding is provided, it continues to complicate the evaluation process. One response identifies a particular concern when private sector commitments are included as part of a project.

Equity commitments are particularly troublesome.

Problems with evaluation systems range from having no formal procedures at all to not having adequate time or staff expertise to perform accurate evaluations. One respondent states that, "[Our city] is still in the Stone Age in performing evaluations... No real evaluation process is in existence. Most evaluations are done 'fleetingly' during the budget process."

A number of respondents indicate that their systems place a greater emphasis on identifying areas of need than on the evaluation process. As one respondent points out, "we are concerned with identifying needs. To an extent this seems to be more appropriate than project evaluation cost/benefit analysis."

A related failure stems from communication difficulties arising in the evaluation process. Complaints include an inability to compel departments to prepare and submit the required documentation in a timely fashion. Often, getting any information from the city departments is difficult. This results in the evaluation staffs working on an abbreviated time schedule or completing their analyses with insufficient information.

As expected, many cities experience problems in the identification and measurement of various costs and benefits. Most often mentioned are difficulties in handling intangible elements of the evaluation. Many cities appear to have stopped even trying to estimate such factors.

There are measurement problems in other areas as well. Estimating gas tax revenues are identified as troublesome, as they traditionally fluctuate considerably over time. The same holds true for land and construction costs. One respondent claims that right-of-way acquisitions are difficult to predict, especially on parcels which end up in court for condemnation proceedings. Forecasting future trends, such as growth patterns, often provide significant obstacles to the local evaluations.

Without a doubt, the single most common problem area is represented by the political constraints placed on the evaluation process. Many specific examples are included in the responses. These include:

- merging priority lists from different departments.
- dealing with a divergence of community interests, eg. developers, environmentalists, homeowners, speculators, and state agencies.
- obtaining citizen support for projects.
- a hesitance to drop existing projects to establish new ones.
- political clout of special interest groups.
- dealing with political jealousies between districts.

All of the political considerations are thought to have a disturbing influence on the evaluation of projects. In many cases, they become the overriding element in the

analysis. At the very least, they are instrumental in determining the measurements to be included and how these elements are to be weighted.

The survey responses hold one final observation. It is evident in the answers that many evaluators disdain the use of formalized decision rules and procedures. They prefer to stick with "hybridized" approaches which have been developed personally, or that have been established historically in a given location or department. The following quote illustrates this feeling:

"I have a problem with evaluation schemes which rely heavily on monetary amounts assigned to non-monetary (or not easily quantifiable) factors - such as the effect on the local economy, quality of life, benefits to constituents, etc. This may be appropriate for very large projects, but not for most projects we deal with. Time, effort, and accuracy of such subjective evaluations is probably not worth it. I would prefer common sense and due thought about such factors, but not monetary assignments."

The responses given in Part III of the UPEQ are interesting from an academic perspective, but they shed little substantive light on the questions of interest to this study. To test the assumptions and hypotheses, the information gleaned from Parts I and II are more important.

The responses to these questions are compiled and presented in Table 2. The descriptive statistics, which are also presented, help give an indication as to how the questions are answered as a whole by the sample population. The data for Part II is summarized in the efficiency index.

Data Analysis

The survey questionnaire was designed specifically to provide data for the verification or rejection of the research hypotheses and to test the validity of the relationships in the conceptual model. In this section, the data relevant to each hypothesis is identified and tested. The premise of each hypothesis is then accepted or rejected based on the appropriate statistical criteria. The conceptual model is reviewed to determine the accuracy of the assumptions upon which it is based. Finally, some of the weaknesses of the research design are discussed to lend perspective to the interpretations and conclusions that follow.

1. Analysis of Hypotheses

1. The first hypothesis addresses the impact that city size has on the levels of staff size and training, evaluation resources, and number of projects evaluated. In each case, the hypothesis asserts that the relationship is positive; as city size increases, so do the other elements. Bivariate regression analyses are done with population (city size) as the independent variable and staff size, training, and number of projects as the dependent variables. The

Table 2:
Response Summary

<u>Part I</u>	<u>Responses</u>	<u>#</u>	<u>%</u>	<u>Mean</u>
1. Form of Government	(0) Strong Mayor	21	40.4	---
	(1) Council/Manager	22	42.3	
	(2) Chief Exec Off.	0	0	
	(3) Other	9	17.3	
2. Centralized Staff	(0) No	33	63.5	.353
	(1) Yes	18	34.6	
3. Prior Training	(0) None	4	7.7	1.51
	(1) Some	22	42.3	
	(2) Most	20	38.5	
	(3) All	5	9.6	
4. Prior Experience	(0) None	2	3.8	1.57
	(1) Some	23	44.2	
	(2) Most	21	40.4	
	(3) All	5	9.6	
5. # of Projects Evaluated in 1984	Ranged from 5 - 800.			163
6. Separate or Grouped Evaluations	(0) Always Combined	7	13.5	1.85
	(1) Mostly Combined	19	36.5	
	(2) Mostly Separate	13	25.0	
	(3) Always Separate	11	21.2	
7. Established Decision Criteria	(1) Seldom/Never	3	5.8	2.92
	(2) Occasionally	13	25.0	
	(3) Usually	22	42.3	
	(4) Always	12	23.1	

<u>Question</u>	<u>Responses</u>	<u>#</u>	<u>%</u>	<u>Mean</u>
8. Evaluations Used	(1) Seldom/Never	2	3.8	2.49
	(2) Occasionally	10	19.2	
	(3) Usually	27	51.9	
	(4) Always	12	23.1	
9. Budget Priority	(0) Low	4	7.7	1.62
	(1) Moderate	19	36.5	
	(2) High	28	53.8	
10. Projects Undertaken 1984	Ranged from 0 - 396.			75
11. Satisfaction	(1) Extreme Dissat.	1	1.9	2.73
	(2) Dissatisfied	13	25.0	
	(3) Satisfied	30	57.7	
	(4) Extreme Satis.	4	7.7	
<u>Part II</u>				
1. Benefit to Constituents	(0) Never	13	25.0	1.75
	(1) Seldom	15	28.8	
	(2) Occasionally	8	15.4	
	(3) Usually	9	17.3	
	(4) Always	6	11.5	
2. Benefit to Others	(0) Never	23	44.2	.865
	(1) Seldom	21	40.4	
	(2) Occasionally	6	11.5	
	(3) Usually	1	1.9	
	(4) Always	0	0	
3. Generated Revenues	(0) Never	7	13.5	2.33
	(1) Seldom	12	23.1	
	(2) Occasionally	12	23.1	
	(3) Usually	14	26.9	

3.		(4) Always	4	7.7	
<u>Part II</u>					
		<u>Responses</u>	<u>#</u>	<u>%</u>	<u>Mean</u>
4.	Diverted Revenue	(0) Never	5	9.6	2.50
		(1) Seldom	6	11.5	
		(2) Occasionally	12	23.1	
		(3) Usually	21	40.4	
		(4) Always	7	13.5	
5.	Multiplier	(0) Never	12	23.1	1.62
		(1) Seldom	19	36.5	
		(2) Occasionally	6	11.5	
		(3) Usually	12	23.1	
		(4) Always	2	3.8	
6.	Intangible Benefits	(0) Never	21	40.4	0.94
		(1) Seldom	17	32.7	
		(2) Occasionally	9	17.3	
		(3) Usually	3	5.8	
		(4) Always	1	1.9	
7.	Construction Costs	(0) Never	1	1.9	3.73
		(1) Seldom	1	1.9	
		(2) Occasionally	0	0.0	
		(3) Usually	7	13.5	
		(4) Always	43	82.7	
8.	Administrative Costs	(0) Never	1	1.9	3.25
		(1) Seldom	4	7.7	
		(2) Occasionally	5	9.6	
		(3) Usually	13	25.0	
		(4) Always	29	55.8	
9.	Research and Development Costs	(0) Never	3	5.8	2.90
		(1) Seldom	7	13.5	
		(2) Occasionally	8	15.4	

9.	(3) Usually	13	25.0	
	(4) Always	20	38.5	
10. Operating Costs	(0) Never	2	3.8	3.08
	(1) Seldom	3	5.8	
	(2) Occasionally	6	11.5	
	(3) Usually	19	36.5	
	(4) Always	22	42.3	
11. True Market Value	(0) Never	5	9.6	2.69
	(1) Seldom	10	19.2	
	(2) Occasionally	11	21.2	
	(3) Usually	16	30.8	
	(4) Always	6	11.5	
12. Opportunity Costs	(0) Never	18	34.6	1.46
	(1) Seldom	16	30.8	
	(2) Occasionally	9	17.3	
	(3) Usually	4	7.7	
	(4) Always	3	5.8	
13. Externalities	(0) Never	8	15.4	2.64
	(1) Seldom	7	13.5	
	(2) Occasionally	13	25.0	
	(3) Usually	21	40.4	
	(4) Always	8	15.4	
14. Political Weighting	(0) Never	0	0	2.90
	(1) Seldom	3	5.8	
	(2) Occasionally	15	28.8	
	(3) Usually	23	44.2	
	(4) Always	10	19.2	
15. Risk	(0) Never	12	23.1	1.67
	(1) Seldom	14	26.9	
	(2) Occasionally	10	19.2	

15.	(3) Usually	11	21.2	
	(4) Always	5	9.6	
16. Redistribution	(0) Never	19	36.5	1.25
Considerations	(1) Seldom	14	26.9	
	(2) Occasionally	9	17.3	
	(3) Usually	7	13.5	
	(4) Always	3	5.8	
17. Price	(0) Never	13	25.0	1.81
Distortions	(1) Seldom	15	28.8	
	(2) Occasionally	12	23.1	
	(3) Usually	8	15.4	
	(4) Always	1	1.9	
18. Discount	(0) Never	12	23.1	1.75
Rates	(1) Seldom	15	28.8	
	(2) Occasionally	11	21.2	
	(3) Usually	7	13.5	
	(4) Always	6	11.5	

and number of projects as the dependent variables. The significance of each relationship is determined by the use of an "F" test.

City size demonstrates a positive impact on the levels of staff training with a standardized Beta weight of .200. While the impact is not particularly substantial ($R^2 = .04$), it is significant at the ninety-five (95) percent confidence level. Population also has a positive impact on the levels of staff experience. While the total impact is less than that on training ($R^2 = .025$, standard Beta = .158), it is still significant. Unfortunately, so many of the sample cities have decentralized staffs, a reliable determination of the effect of city size on staff size is impossible. The finding that so many staffs are decentralized is itself significant.

In measuring the levels of resources that the cities devote to project evaluation, actual budget information was ruled out as unreliable, complex, and difficult to compare. Instead, the survey measures the priority that each city places on project evaluation in the budgetary process. The data shows once again that population has a small, but significantly positive impact on this priority. Incidentally, the sample cities demonstrate a tendency to claim a high priority for evaluation. Fifty-four (54) percent responded with a "high priority" ranking compared with only eight (8) percent with a low priority.

The final element of the first hypothesis is concerned

with the level of capital development projects undertaken by the sample cities. This is undoubtedly the strongest relationship of all the relevant possibilities. The two variables are positively related with a standard Beta coefficient of .324, which is clearly significant at a five (5) percent level of significance. The variables have a higher coefficient of correlation at .105 than did the others.

The hypothesis appears to be essentially valid. While we cannot measure the effect of city size on staff size, the data supports the contention that the larger cities have more highly trained staffs (in terms of training and practical experience), place a greater priority on evaluation in the budgetary process, and evaluate a greater number of capital development projects. A sample of smaller cities would help complete the regression and allow more secure conclusions about these relationships.

2. The second hypothesis investigates whether the completed evaluations are regularly incorporated into the decision-making process. Seventy five (75) percent of the sample population indicate that the evaluations are used either "usually" or "always." A single-tailed "t" test is used to see if the true population mean is a three (indicating that the cities usually use the evaluations) or greater. The null hypothesis, that cities do indeed use their evaluations, is then accepted with a ninety-five (95)

percent confidence.

The original hypothesis asserts that evaluations will tend not to be included in the final decisions. This is obviously not the case, so hypothesis #2 is rejected. Rather, despite any political or procedural considerations which might exist, cities will generally use the evaluations they prepare.

3. As a means of simplifying the evaluation process, cities may eventually overemphasize easily quantifiable measurements. Valid estimates of indirect and intangible factors require greater time to prepare. Hypothesis #3 tests whether this is indeed the case in current practice.

An examination of the descriptive statistics for the various measurements in the survey reveals an interesting schism. The elements included most often are construction, administration, research and development, and operating costs of the projects. These are factors for which quantification is relatively easy. If nothing else, the cities are billed for these costs. Among the elements that are included least often include measurements of direct benefit, multipliers, intangible benefits, and other less concrete factors. The dichotomy between what is included and what is not tends to validate the hypothesis.

For further analysis, we can test the responses to the survey question which deals with intangible benefits. Nearly two-thirds of the respondents indicate that they

include this measurement only seldom at best. A test of the null hypothesis that the population mean is two (2=seldom) or less reveals that this can be established at a five (5) percent level of significance

On the whole, hypothesis #3 is accepted. Cities apparently use the more easily quantified measurements far more often than more difficult elements. Intangible benefits are seldom included in the evaluations.

4. The political pressures that are so clearly evident in the environment of project evaluation can lead to myopic analyses which concentrate on purely local criteria to the exclusion of the areas outside the jurisdiction of the government. The survey addresses this phenomenon in two ways. First, respondents are asked if they account for the benefits which accrue to residents and non-residents. A significant bias between the two would substantiate the "myopia." Secondly, the questionnaire measures the frequency with which externalities are measured. This gives another indication of the city's concern with outlying areas.

Upon analysis, we find that cities tend not to include any measurement of direct benefit on a regular basis. We can, however, still test whether evaluators are significantly more likely to include local measures and not others. To do so, a null hypothesis that the means of the two variables are equal is tested against the alternative

that the means for resident measures is higher than that of non-residents. A one-tailed "t" test leads to the rejection of the null hypothesis at a five (5) percent level of significance. Therefore, the alternative hypothesis is accepted, thus indicating that the cities do indeed rate resident benefits over those of non residents.

The cities appear to handle externality costs differently. Forty (40) percent of the respondents indicate that these measurements are usually included in their evaluations. Because of this, the test hypothesis states that the population mean is greater than or equal to 2.6 (thus indicating a moderate to frequent level of use). The hypothesis holds at a five (5) percent level of significance. Therefore, we can determine that the cities "frequently" account for the externality costs of their projects.

Overall, the first part of hypothesis #4 appears to hold true. The cities do tend to favor only the benefits which accrue to the local jurisdiction. However, they also seem to be cognizant of the externality costs which may fall to the outlying areas. Whether or not this may stem from a fear of legal retaliation cannot be determined here.

5. Since many social concerns are abstract and intangible, it is hypothesized in #5 that these considerations will generally be omitted from urban evaluations. As we have seen, complicated measurements are

often avoided. The survey asks respondents about their approach to opportunity costs, price distortions, and income distribution problems. Other social topics, such as implications on tax policies or ethical considerations, have been left for future research.

Apparently, cities prefer to use market prices when determining the costs of project resources. Only 13.5 percent of the respondents indicate that they make corrections for opportunity costs on more than an occasional basis. A null hypothesis that the true population mean is greater than or equal to two (occasional use) is rejected at a five (5) percent level of significance. The rival hypothesis that evaluators seldom or never use opportunity costs is accepted.

The effects of a project on the local price level are similarly avoided. The survey shows that only 17.3 percent of the evaluations account for these effects on a regular basis. Again, the hypothesis that the population mean is less than two (2) is significant at five (5) percent, thus indicating that evaluators seldom or never adjust for price distortions.

The sample cities are slightly more inclined to include considerations of income redistribution, but still, nearly two-thirds regularly omit them from their evaluations. We can state with ninety-five (95) percent confidence that these measurements are rarely included by the large cities.

The original hypothesis that the project evaluations

done in the large cities ignore the more abstract social concerns appears to hold true. Of the measurements tested all are used infrequently. The data clearly indicates that the hypothesis is valid

6. Hypothesis #6 asserts that there is little consistency among cities in the use of discount rates. An initial review of the response distribution on question 18 of Part II seems to bear this out. Answers are fairly evenly spread out among the alternatives.

One telling statistic is that slightly over half of the cities use discount rates either "seldom" or "never." This evidence is not conclusive. Mean and modal scores indicate a "seldom" rate of use, however, a large standard deviation reflects the large dispersion of responses.

If the data is perfectly distributed among the alternatives (ie , perfect inconsistency among cities), then the population mean would be two (2). A null hypothesis that this is true is tested and holds true at a five (5) percent level of significance, but not at two (2) percent. On the whole, the hypothesis can be accepted, but the data demonstrates somewhat of a bias toward the lower ratings.

Many respondents fail to indicate the discount rate they use. Of those that offer a reply, a majority indicate that the discount rates are varied according to the specific circumstances of the project. The data gives no indication of the criteria for selecting these rates, so it cannot be

firmly established that they are altered to enhance or detract from the optimal appearance of a project.

Nevertheless, the original hypothesis holds. There is little consistency among the cities on the use of discount rates. A slight consensus indicates an avoidance of their use. A lack of any clear choice of discount rate or criteria for their choice hints that cities may use them to enhance the attractiveness of certain projects.

7. The final hypothesis asserts that project evaluators will tend to be dissatisfied with the current methodologies. The survey asks them to rate themselves from "extremely dissatisfied" to "extremely satisfied." Of the fifty-two (52) cities surveyed, three evaluators did not know the extent of their satisfaction and one respondent failed to reply.

Clearly, the most popular response is an indication of satisfaction. Roughly two-thirds of the respondents are satisfied, yet only eight (8) percent are extremely so. Twenty-five (25) percent are dissatisfied. Median and modal responses indicate a "satisfied" rating and the coded mean of 2.608 falls between "satisfied" and "dissatisfied," but is more toward the satisfied end of the scale. Testing with a one-tailed "t" distribution indicates that the score is significant at a ninety-five (95) percent confidence level.

On the basis of the survey responses, the original hypothesis must be rejected. In spite of the complexities

and ambiguities in the field of project evaluation, practitioners appear content with their methodologies.

In summary, most of the hypotheses are supported by the data. Hypothesis #2 is rejected as the cities apparently do use the evaluations in their decisions. Hypothesis #6 is essentially true, however, evidence suggests an underlying hesitance to use discount rates at all. Hypothesis #7 is rejected as evaluators indicate a general satisfaction with their methodologies.

2. Analysis of Conceptual Model

With the establishment of the remaining hypotheses, we now return to the conceptual model to see if the relationships therein are supported by the data.

The initial relationship in the model is addressed by hypothesis #1 which establishes that city size has a positive impact on the number of capital redevelopment projects undertaken. The hypothesis also tests the relationship between city size and the level of resources devoted to evaluation. We find that city size has a positive effect on the level of resources, but this is much weaker than the relationship with the number of projects evaluated.

The second relationship asserts that the number of projects should have a positive bearing on the level of resources. Undertaking more projects should lead to more

evaluations which, in turn, would require greater evaluative resources. However, there appears to be no such significant trend for the range of cities in the sample. The model can be improved if it is altered to reflect that city size effects the level of resources, but apparently not through the number of projects undertaken. The level of resources and the number of projects are practically uncorrelated.

The focus of the model is on the ultimate quality of evaluations done in a city. Once again, this is measured through the efficiency index. The other elements of the model are only important insofar as they relate to the measurement of quality.

The index is constructed so that the lowest score possible is a -4, while a perfect score is 60. The sample cities reveal indexes which range from a low of four (4) to a high of fifty-one (51). Both the mean and the median are at or near thirty (30). This may initially seem low, but when political and fiscal factors are taken into account, it is highly unlikely that the evaluations will ever include all economic considerations for each and every project. The sample cities, along with their efficiency index scores, are listed in Table 3.

To test the impact of each of the variables in the model on the efficiency index, bivariate regressions are used. Finally, a multivariate regression is done to assess the total impact of the entire model. In each case, the IISum (index) variable is the dependent variable.

Table 4 shows a breakdown of the statistics which describe the relationships between the different variables and the efficiency index. City size and number of projects have no significant impact on the final quality of the evaluation. Individually, levels of staff training and experience do demonstrate a significantly positive influence.

To test the predictive qualities of the model, a multivariate regression is done using the four most significant variables: staff training, staff experience, use of evaluations in decisions, and the budget priority of evaluations. The dependent variable is the efficiency index. On the whole, the regression equation works out to be somewhat less than useful, demonstrating a coefficient of correlation of only .028. The regression coefficients are not significant at the ninety-five (95) percent confidence level.

The equation serves to illustrate some interesting findings, however. One surprise is that the independent variables are all negatively correlated with one another. This might account for the low predictability of the model.

A second curiosity is that the priority evaluations receive in the budgetary process has a negative relationship with the quality of evaluation. It has been assumed to this point that cities which place a high priority on evaluation would produce a higher quality assessment. In the sample cities, this is not the case. The regression indicates that

priority is negatively correlated with the index, and it has a negative Beta coefficient. One possible explanation is that the cities which place a high priority on evaluations have created a system which is "secure," thus they may be more prone to taking short cuts.

3. Weaknesses of the Study

To fully analyze the data obtained in the study, it is necessary to evaluate the strengths and weaknesses of the research design. This is needed to place the data in a proper perspective so that valid conclusions can be reached.

The research is successful in designing a measurement tool that is simple enough to facilitate a high rate of response. The percentage of the study population responding to the questionnaire allows generalizations with a high degree of confidence.

The greatest weaknesses of the research center on the collection of data. The diversity of addressees leads to an uncertainty over the types of officials that eventually completed the questionnaire. In some cases, city managers responded. In others, the budget director completed the survey. There is no assurance that the most appropriate official was indeed the one that responded. Different officials might have differing perspectives on the topic. A more consistent choice of respondent might increase the validity of the data.

The questionnaire itself is a victim of a void of

similar types of research from which to base its design. Unwittingly, it gathers nominal, ordinal, and interval types of data, which make statistical analyses between variables much more complex. The efficiency index approximates interval data, but because the responses were based on unquantifiable terms (Always, Usually, etc.), it is impossible to determine the true distance between scores. In many instances, higher order analyses are used than the data might otherwise dictate. This compromises the validity of the conclusions. A better approach might have been to gather similar types of data, which would improve the comparability of the variables.

Undoubtedly, other problems exist with the study. Nevertheless, it accomplishes basically what it sets out to do: it provides an initial look at the environment and practice of project evaluation in the major cities of the country.

Table 3:
List of Respondents

<u>City</u>	<u>Population</u> ¹⁰	<u>Eff Index</u>	<u>Satisfaction</u>
1. Dallas, TX	904,078	30	3
2. San Diego, CA	875,504	32	3
3. Baltimore, MD	786,775	25	3
4. Phoenix, AZ	764,911	26	3
5. Indianapolis, IN	700,807	31	3
6. Memphis, TN	646,356	22	2
7. Washington, DC	637,651	37	3
8. Cleveland, OH	573,822	44	2
9. Columbus, OH	564,871	34	3
10. New Orleans, LA	557,482	36	3
11. Jacksonville, FL	540,898	4	4
12. Seattle, WA	493,846	33	2
13. Nashville, TN	455,651	33	2
14. St. Louis, MO	453,085	24	2
15. El Paso, TX	425,259	27	0
16. Atlanta, GA	425,022	36	4
17. Pittsburg, PA	423,938	33	3
18. Ft. Worth, TX	385,141	15	3
19. Minneapolis, MN	370,951	42	3
20. Austin, TX	345,496	23	2
21. Albuquerque, NM	331,767	30	4
22. Tucson, AZ	330,537	35	3
23. Omaha, NE	311,681	34	3
24. Birmingham, AL	284,413	25	2
25. Rochester, NY	241,741	35	3
26. Akron, OH	237,177	42	3
27. St. Petersburg, FL	236,893	35	3
28. Colorado Springs, CO	215,150	16	3
29. Shreveport, LA	205,815	27	2
30. Lexington, KY	204,165	30	3
31. Dayton, OH	203,588	40	4

<u>City</u>	<u>Population</u>	<u>Eff Index</u>	<u>Satisfaction</u>
32. Jackson, MS	202,895	21	0
33. Lubbock, TX	173,979	48	3
34. Anchorage, AK	173,017	27	2
35. Ft. Wayne, IN	172,196	22	2
36. Lincoln, NE	171,932	32	0
37. Hntngtn Bch, CA	170,505	41	3
38. Syracuse, NY	170,105	20	3
39. Chatanooga, TN	169,565	36	3
40. Metairie, LA	164,160	26	
41. KansasCity, KN	161,087	51	4
42. Aurora, CO	158,588	17	3
43. Ft.Laudrdle, FL	153,256	27	2
44. Arlington, VA	152,599	25	3
45. Mesa, AZ	152,453	24	3
46. Springfield, MA	152,319	15	3
47. Stockton, CA	149,779	36	3
48. NewportNews, VA	144,903	21	2
49. Bridgeport, CN	142,546	25	3
50. Savannah, GA	141,634	26	2
51. Fremont, CA	131,945	32	3
52. Orlando, FL	128,394	29	3

Table 4:

Regression Coefficients for Efficiency
Index with City Size, Number of
Projects, and Level of Resources

<u>Variable</u>	<u>Correlation</u>	<u>Significance</u>	<u>R Sq.</u>	<u>F</u>	<u>Sig. F</u>
City Size	.018	.450	.0003	.0162	.8993
# Projects	.043	.381	.0019	.0932	.7614
Training	.147	.149	.0216	1.106	.298
Experience	.149	.146	.0221	1.132	.239

CHAPTER V
RECOMMENDATIONS AND CONCLUSIONS

This study has taken an initial look at the problems of project evaluation in the larger American cities. As with many such pioneering efforts, its chief contribution is to raise new questions and identify areas of needed work. By pinpointing these, it may be possible to gain a sufficient understanding of the field to develop an evaluative practice that is justified by economic theory and vice versa.

A profile of the "standard" city in the sample would be a city of 336,006 with either a strong mayor or a council/manager system of government. The evaluation staff is decentralized and only some of the personnel has had previous training and/or experience in project evaluation. This staff separately evaluates 163 projects of which 75 will eventually be implemented. The local government usually utilizes the evaluations when making a decision and places a high budget priority on the evaluations.

The evaluations done in this city are based on such items as indirect benefits, construction costs, administrative costs, research and development costs, operating costs, externality effects, and is weighted to address local political objectives.

While we know that this standard city does not actually exist, it is useful in highlighting the overall state of evaluation in the sample cities. The evaluations are not,

in general, based on solid economic reasoning. They are highly conscious of cost considerations and regularly ignore other important factors. This argument is supported by the low efficiency index scores. Taken in this context, it appears that the cities are highly prone to choosing suboptimal projects. The true extent of this cannot be determined from the data in this research. We can say, however, that if these cities are managing to choose the best projects available, it is likely done through mechanisms other than their evaluations.

The data indicates that a city wishing to improve its evaluative efficiency should concentrate on the qualifications of the evaluation staff. The training and experience of the personnel in most cities is quite low; even lower than expected.

The subpar level of training and experience is complicated and partially explained by the fact that the staffs are largely decentralized. It appears that the personnel in various departments are responsible for the evaluation of their projects. The personnel is undoubtedly trained in the activities of the department and is less likely to have an adequate evaluation background. This serves to narrow the focus of the criteria to what is important for that particular department. It eliminates the consideration of broader social concerns and encourages the use of more easily quantifiable factors. From this, we can assume that the cities can improve their evaluations by

centralizing their evaluation staffs and by increasing their training levels.

There are certainly many other feasible suggestions which would serve to upgrade the economic efficiency of the project evaluations. Unfortunately, more research is needed to accurately assess the impacts of such changes. As mentioned, the political forces that influence the elements of the evaluations must be identified and measured.

This study identifies certain factors which account for only a small portion of the efficiency index. Further research can identify the personal and historical contexts in which the evaluation procedures are derived, the effects of larger economic considerations (growth or recession), and social or socioeconomic elements that this study has overlooked.

The practices and environments of mid-sized and smaller cities needs to be assessed. This would allow comparisons with the larger cities to better indicate the effects of city size, form of government, and so forth. Such a comparison could greatly benefit all cities and towns.

This research shows that project evaluators are generally satisfied with the methods they currently use. Further research is needed to more clearly identify the specific items they like and dislike. Such information would be useful in developing and implementing more economically acceptable procedures.

This paper describes a research project which assesses project evaluation methodologies in terms of cost-benefit criteria. The background information details the theoretical framework from which the project proceeds, outlines the methods used in gathering the data through a survey questionnaire, and lists the hypotheses studied. The results are then compiled and analyzed, and the hypotheses are tested. Finally, recommendations are offered to improve the evaluations and to direct future research.

Most of what we have learned in this study is neither significantly innovative nor immediately useful. The findings of this study will not have a resounding consequence on the field of evaluation. But it can be useful in beginning the process of constructing an approach to project evaluation that is economically efficient, politically effective, and procedurally practical.

It is important that local governments optimize every resource available to them. To do this, they must avail themselves of the most accurate evaluations of the alternatives and utilize these prominently in the decision making process. In this way, they further the chances of solving many urban dilemmas.

And it need not stop at the local level. If resource utilization is optimized here, it is possible the momentum could carry through to the state level and on to federal projects. It is perhaps our greatest hope of ever eliminating budget deficits, while ensuring an adequate

supply of public goods and services. It could mark the true professionalization of the public administrator.

**PUB 593 Practicum
Research Mailing List
By State**

<u>City</u>	<u>Address</u>	<u>Phone</u>
<u>Alabama</u>		
1. Birmingham	Dept. of Community Development 710 20th St. N. 35203	(205) 254-2309
2. Huntsville	Community Development Department Annex Building 35804	(205) 532-7453
3. Mobile	Office of Economic Development 111 S. Royal 36601	(205) 438-7433
4. Montgomery	Mayor's Office 103 N. Perry 36104	(205) 832-4417
<u>Alaska</u>		
5. Anchorage	City Manager/ CAO City Hall 99502	(907)
<u>Arizona</u>		
6. Mesa	City Manager 55 N. Center 85201	(602) 834-2396
7. Phoenix	City Manager 251 W. Washington 85026	(602) 262-6941
8. Tucson	City Manager 250 W. Alameda 85726	(602) 791-4204
<u>Arkansas</u>		
9. Little Rock	City Manager City Hall 72201	(501) 371-4510
<u>California</u>		
10. Anaheim	Dept. of Community Development 106 N. Claudina 92803	(213) 533-8750
11. Fremont	City Manager 39700 Civic Center Dr. 94536	() 791-4111
12. Fresno	City Manager 2326 Fresno 93706	(209) 488-1563
13. Glendale	City Manager 613 E. Broadway 91209	(213) 956-2067
14. Huntington Beach	City Administrator 2000 Main 92647	() 536-5201
15. Long Beach	City Manager 333 W. Ocean Blvd. 90801	(213) 590-6711

Research Mailing List - 2 -

16.	Los Angeles	Community Redevelopment Agency 354 S. Spring 90052	(213) 977-1600
17.	Oakland	City Manager City Hall 14th & Washington 94615	(415) 273-3301
18.	Riverside	City Manager City Hall 9000 Main 92502	() 787-7553
19.	Sacramento	City Manager City Hall 95813	(916) 449-5704
20.	San Diego	City Manager 1222 1st Ave. 92109	(714) 236-6363
21.	San Fransisco	Chief Administrative Officer City Hall 94101	(415) 558-4851
22.	San Jose	Center City Development 14 S. 1st 95101	(408) 277-5548
23.	Santa Ana	City Manager 20 Civic Center Plaza 92711	() 834-4131
24.	Stockton	Community Development Department 6 E. Lindsay 95204	(209) 944-8444
25.	Torrance	City Manager 3031 Torrance Blvd. 90510	() 618-5880
<u>Colorado</u>			
26.	Aurora	City Manager 1470 S. Havana 80010	(303) 695-7010
27.	Colorado Springs	City Manager 30 S. Nevada Ave. 80901	(303) 578-6600
28.	Denver	Community Development Agency 1425 Kalamath 80202	(303) 572-8121
<u>Connecticut</u>			
29.	Bridgeport	Development Administrator 45 Lyon Ter. 06602	(203) 576-7756
30.	Hartford	City Manager 550 Main 06101	(203) 722-6620
31.	New Haven	Chief Administrative Officer 157 Church 06510	(203) 787-8278
<u>Delaware</u>			
None			
<u>District of Columbia</u>			
32.	Washington	Office of Business and Econ. Dev. 1350 Pennsylvannia Ave. 20013	(202) 727-6600

Research Mailing List - 3 -

Florida

33. Fort Lauderdale City Manager () 761-2661
City Hall 33310
34. Hialeah Mayor's Office (305) 883-5800
501 Palm Ave. 33010
35. Jacksonville Chief Administrative Officer () 633-3703
City Hall 32201
36. Miami City Manager (305) 579-6040
3500 Pan American Dr. 33152
37. Orlando Chief Administrative Officer () 849-2221
City Hall 32802
38. St. City Manager/ CAO (813)
Petersburg City Hall 33730
39. Tampa City Manager/CAO (813)
City Hall 33602

Georgia

40. Atlanta Department of Community Dev. (404) 685-7525
675 Stewart Ave., S.W. 30304
41. Columbus Dept. of Community & Econ. Dev. () 323-6145
18 9th St. 31902
42. Savannah Savannah Certified Dev. Corp. (912) 232-3527
Gamble Building 31401

Hawaii

43. Ewa City Manager/CAO (808)
City Hall
44. Honolulu City Manager/CAO (808)
City Hall

Idaho

None

Illinois

45. Chicago Dept. of Economic Development (312) 744-3881
20 N. Clark 60607
46. Rockford Dept. of Community Development (815) 987-5600
425 E. State 61125

Indiana

47. Evansville Redevelopment Commission () 426-5647
City County Building 47708
48. Fort Wayne Community Development & Planning () 427-1140
City County Building- 8th Floor 46802

Research Mailing List - 4 -

49. Gary Div. of Physical and Econ. Dev. (219) 885-6211
475 Broadway 46401

50. Indianapolis Economic Development Office (317) 236-3630
City County Building 46206

Iowa

51. Des Moines Planning Department (515) 283-4182
E. 18 Des Moines St. 50318

Kansas

52. Kansas City City Manager/CAO (913)
City Hall 66110

53. Wichita City Manager () 268-4351
455 N. Main 67202

Kentucky

54. Lexington Office of Economic Development () 255-4141
200 E. Main 40511

55. Louisville Community Development Office (502) 587-3524
727 W. Main St. 40201

Louisiana

56. Baton Rouge Community Development Division (504) 389-3039
Municipal Building 70821

57. Metairie City Manager/CAO (504)
City Hall 70004

58. New Orleans Community Improvement Agency (504) 528-1933
1215 Prytania 70113

59. Shreveport Chief Administrative Officer (318) 226-6014
City Hall 71102

Maine

None

Maryland

60. Baltimore BEDCO (301) 837-9305
Charles Center South 21233

Massachusetts

61. Boston Econ. Dev. & Industrial Commission (617) 725-3342
60 Congress 02109

62. Springfield Dept. of Community Development () 787-6050
36 Court 01101

63. Worcester City Manager (617) 799-1175
455 Main 01613

Research Mailing List - 5 -

Michigan

64. Detroit Community & Economic Dev. Dept. (313) 224-2569
150 Michigan 48233

65. Flint City Administrator (313) 766-7346
1101 S. Saginaw 48502

66. Grand Rapids Dept. of Community Development (616) 456-3677
300 Monroe N.W. 49501

67. Lansing Economic Development Corp. (517) 483-4140
City Hall 48924

68. Warren Economic Development Corp. (313) 574-4965
8300 Common 48089

Minnesota

69. Minneapolis City Coordinator (612) 348-2032
City Hall 55401

70. St. Paul Dept. of Planning & Econ. Dev. (612) 292-1577
City Hall Annex 25 W. 4th St. 55101

Mississippi

71. Jackson Dept. of City Development (601) 960-2155
218 S. President 39205

Missouri

72. Kansas City City Administrator () 573-5030
701 N. 7 64108

73. St. Louis Community Development Agency () 622-3400
317 N. 11th 63155

74. Springfield Mayor's Office () 864-1651
830 Boonville 65801

Montana

None

Nebraska

75. Lincoln City Manager/CAO (402)
City Hall 68501

76. Omaha Planning Department () 444-5150
1819 Farnam 68108

Nevada

77. Las Vegas City Manager/CAO (702)
City Hall 89114

New Hampshire

None

Research Mailing List - 6 -

New Jersey

78. Jersey City Building Dept. of Community Dev. () 547-5055
88 Clifton Place 07303
79. Newark Policy and Development Office (201) 733-6575
920 Broad 07102
80. Paterson Redevelopment Agency () 279-5980
125 Ellison 07510

New Mexico

81. Albuquerque Community & Economic Dev. Dept. (505) 766-7715
601 2nd N.W. 87101

New York

82. Buffalo Community Development Dept. (716) 855-5035
City Hall 14240
83. New York Economic Development Office (212) 233-2121
17 John 10001
84. Rochester Department of Community Development ()
City Hall 14603
85. Syracuse Department of Community Development (315) 473-2873
Hills Building 13201
86. Yonkers Department of Development () 423-7300
53 S. Broadway 10701

North Carolina

87. Charlotte City Manager (704)
City Hall 28202
88. Greensboro City Manager () 373-2002
One Governmental Plaza 27420
89. Raleigh City Manager (919) 755-6210
110 S. McDowell St. 27611
90. Winston-Salem City Manager ()
City Hall 27102

North Dakota

None

Ohio

91. Akron Dept. of Planning & Urban Dev. (216) 375-2770
166 S. High 44309
92. Cincinnati Economic Development Department (513) 352-3400
City Hall 801 Plum Rm. 318 45234
93. Cleveland Community Development Department (216) 664-2790
601 Lakeside N.E. 44101

Research Mailing List - 7 -

94. Columbus Department of Development (614) 222-7763
140 Marconi Blvd. 43216

95. Dayton City Manager () 225-5145
101 W. 3rd 45401

96. Toledo City Manager (419) 245-1010
City Hall 43601

Oklahoma

97. Oklahoma City City Manager (405) 231-2345
200 N. Walker 73125

98. Tulsa City Development Department (918) 592-7696
200 Civic Center 74101

Oregon

99. Portland Planning Bureau (503) 796-7201
1120 S.W. 5th 97208

Pennsylvania

100. Philadelphia City Planning Commission (215) 686-4607
City Hall Annex 19104

101. Pittsburg Dept. of City Development (412) 255-2660
City County Building 15219

Rhode Island

102. Providence Dept. of Planning and Urban Dev. (401) 831-6550
40 Fountain 02904

South Carolina

None

South Dakota

None

Tennessee

103. Chattanooga Economic & Community Development (615) 757-5133
City Hall 37401

104. Knoxville Community & Economic Development () 521-2120
City County Building 37901

105. Memphis Planning and Development Office (901) 528-2601
125 Mid America Mall 38101

106. Nashville Community Development Office (615) 259-6500
1419 8th Ave. N. 37202

Texas

107. Amarillo City Manager (806) 378-3011
City Hall 79105

Research Mailing List - 8 -

108.	Arlington	City Manager 101 W. Abram St. 76010	(214) 275-3271
109.	Austin	City Manager 124 W. 8th 78710	(512) 477-6511
110.	Corpus Christi	Dept. of Community Development 110 N. Shoreline 78408	(512) 884-3011
111.	Dallas	City Manager 1500 Marilla 75260	(214) 670-3299
112.	El Paso	Dept. of Community Development 2 Civic Center Plaza 79910	(915) 541-4539
113.	Fort Worth	City Manager Municipal Building 76101	(817) 870-6111
114.	Garland	Economic Development Department 200 N. 5th 75040	(214) 681-5706
115.	Houston	Dept. of Economic Development 609 Fannin Suite 2021 77013	(713) 222-3825
116.	Lubbock	City Manager 916 Texas 79408	(806) 762-6411
117.	San Antonio	Economic & Employment Dev. Dept. City Hall - Military Plaza 78284	(512) 299-8120
<u>Utah</u>			
118.	Salt Lake City	Development Services City County Building 84101	(801) 535-7777
<u>Vermont</u>			
None			
<u>Virginia</u>			
119.	Arlington	Community Affairs Department 2100 14th St. N. 22210	(703) 558-2336
120.	Newport News	City Manager 2400 WASHINGTON Ave. 23607	() 247-8411
121.	Norfolk	City Manager City Hall 23501	(804) 441-2471
122.	Richmond	City Manager 900 E. Broad St. 23232	() 780-5386
123.	Virginia Beach	City Manager Municipal Center 23458	() 427-4541
<u>Washington</u>			
124.	Seattle	Community Development Department 600 4th St. 98109	(206) 625-4537

Research Mailing List - 9 -

125.	Spokane	City Manager City Hall W808 Spokane Falls Blvd.	(509) 456-2612 99210
126.	Tacoma	City Manager 740 St. Helens	(206) 591-5130 98402

West Virginia

None

Wisconsin

127.	Madison	Community Development Authority 215 Manona Ave.	(608) 266-4635 53701
128.	Milwaukee	Department of City Development 734 N. 9th	(414) 278-2690 53203

Wyoming

None

January 17, 1985

Dear Project Evaluator;

My name is Brian Barrie and I am writing to request your assistance in gathering information on the current state of urban project evaluation in the major cities of the United States. The enclosed survey is part of a study to determine what is now being done in the field, and to more clearly define possible problem areas or shortcomings in modern techniques.

The study concentrates on evaluation techniques for proposed urban capital development projects, as opposed to program evaluations. The specific type or size of project is not relevant to this study. Rather, I am interested in the types of considerations generally taken into account when assessing project proposals. **IF THE ENCLOSED QUESTIONNAIRE WOULD BE BETTER COMPLETED BY ANOTHER DEPARTMENT OR INDIVIDUAL, PLEASE ASSIST ME BY FORWARDING THIS MATERIAL TO THE PROPER DESTINATION.**

I am heading this investigation in fulfillment of the practicum requirements of the Master of Public Administration degree program at the University of Michigan. Since the study focuses on a limited number of cities, your participation is greatly needed. The questionnaire takes no more than a few minutes to complete. I have tried to avoid questions of a confidential nature, and I can assure you of the utmost confidentiality of all responses.

It is my intention that this study be both valid and useful. Therefore, your assistance is greatly appreciated. If you are interested in the results of the study, I will be more than happy to send you a copy.

I ask at the end of the questionnaire if it would be permissible for me to contact you as a means of possible follow-up. Please understand that this is entirely optional, and while it would prove helpful to the study, it should not influence your participation in the study.

Should you have any further questions, please feel free to contact me at (313) 732-0262. Thank you for your cooperation.

Sincerely,

Brian J. Barrie

QUESTIONNAIRE INSTRUCTIONS

- PLEASE ANSWER THE QUESTIONS AS COMPLETELY AS POSSIBLE. IF YOU CANNOT ANSWER A QUESTION, OR YOU FEEL THAT IT DOES NOT APPLY TO YOUR SITUATION, PLEASE INDICATE SO, ESTIMATE WHEN NECESSARY. PLEASE NOTE THAT THE QUESTIONS ONLY ADDRESS THE METHODS USED IN EVALUATING URBAN PROJECT PROPOSALS.
- THE FINAL QUESTION IS STRICTLY OPTIONAL. IF YOU WOULD NOT MIND PARTICIPATING IN FURTHER FOLLOW-UP, PLEASE SUPPLY THE NECESSARY INFORMATION. IF YOU PREFER NOT TO PARTICIPATE, SIMPLY LEAVE THIS SECTION BLANK. NO EFFORT WILL BE MADE TO CONTACT YOU.
- UPON COMPLETION OF THE QUESTIONNAIRE, PLEASE PUT IT IN THE ENCLOSED SELF-ADDRESSED STAMPED ENVELOPE AND RETURN IT TO ME BY **FEBRUARY 8 OR THE EARLIEST POSSIBLE DATE.** THIS WILL GREATLY ASSIST ME IN THE COMPILATION AND ASSESSMENT OF THE DATA.
- ONCE AGAIN, THANK YOU FOR YOUR COOPERATION.

URBAN PROJECT EVALUATION QUESTIONNAIRE

Part I.

1. What form of government is used locally?
 - A. Strong Mayor
 - B. Council/Manager (Circle One)
 - C. Chief Executive Officer
 - D. Other _____ (Please specify)

2. Is the project evaluation staff centralized into one department or agency? Yes No (Circle one)
 - If yes, what is the number of employees? _____
 - If no, which department or division coordinates the evaluations? _____

3. How many of the evaluation staff had some level of formal training in project evaluation prior to assuming their present positions?
____ All ____ Most ____ Some ____ None

4. How many of the evaluation staff had practical experience in project evaluation prior to assuming their present positions?
____ All ____ Most ____ Some ____ None

5. How many urban capital projects were evaluated by your department in 1984? (Estimate if necessary) _____

6. Are projects evaluated separately or grouped with other similar or competing projects?
 - _____ Always Separately
 - _____ Mostly Separately
 - _____ Mostly in Combination
 - _____ Always in Combination

7. Are the final decision criteria determined prior to beginning an evaluation?
 - _____ Always
 - _____ Usually
 - _____ Occasionally
 - _____ Seldom/Never
 - _____ Don't Know

8. Are project evaluations actively used in the decision-making process?
 - _____ Always
 - _____ Usually
 - _____ Occasionally
 - _____ Seldom/Never
 - _____ Don't Know

9. In the local budgetary process, what priority is placed on the evaluation of projects?
 - _____ High Priority
 - _____ Moderate Priority
 - _____ Low Priority

10. How many projects that were evaluated by your department were actually undertaken or started in 1984?
(Estimate if necessary) _____
11. How would you rate your satisfaction with your current methods of project evaluation?
- _____ Extremely Satisfied
 - _____ Satisfied
 - _____ Dissatisfied
 - _____ Extremely Dissatisfied
 - _____ Don't Know

Part II.

This section addresses the types of considerations that may be included in your evaluations. Please place an "X" in the box that is most appropriate to your situation.

	Always	Usually	Occasionally	Seldom	Never
1. In your evaluations, do you include a dollar estimate of the benefits to the constituents who use the project?					
2. Do you include a dollar estimate of the benefit to the users of the project who live outside the local jurisdiction (non-residents)?					
3. Do you include a measure of the revenue generated by the project that comes from persons or businesses that reside outside the local jurisdiction?					
4. Do you include a measure of the revenue generated by the project that comes from persons or businesses that reside in the local jurisdiction or constituency?					
5. Do you use a "multiplier" to determine a level of indirect benefit that the project can bring to the local economy?					
6. Do you provide a dollar estimate for any intangible benefits which might accrue, such as increased civic pride or quality of life concerns?					
7. Are construction costs included in the evaluations?					
8. Are relevant administrative costs included?					
9. Are the Research and Development costs of the project included in the evaluations?					
10. When estimating the cost of a project, do you allow for any future operating costs which may accrue?					

Part II. (Continued)

- 11. Do you adjust the prices of inputs and outputs of the project to reflect accurate or true market values?
- 12. Do the evaluations adjust the construction and/or personnel costs to reflect any opportunity costs, such as the value of rejected projects?
- 13. Do you include measures of externalities or "spillover" effects that the project might generate, such as pollution or congestion problems?
- 14. Do you give special weights for projects which best address local political objectives, such as crime or unemployment?
- 15. Are weights given to reflect the level of risk involved in a project?
- 16. Do you give weights for income redistribution considerations?
- 17. Are price level or price distortion considerations taken into account?
- 18. Do you discount (use present value adjustments) for future costs and benefits?
- 19. What discount rate is used? _____

	Always	Usually	Occasionally	Seldom	Never

Part III.

On the back of this sheet, please list areas of proposed urban project evaluation which often present problems. Also, please list any comments or suggestions that you may have on the subject.

I would like to contact you briefly by telephone for possible follow-up information. **This is entirely optional.** If you would not mind being contacted, please include the following:

Name _____ Position _____

Business Address _____ Phone _____

Street

City State Zip Code

Best time to contact you? _____

Would you like a copy of my final report? Yes No

APPENDIX C:

The following are examples of the evaluation forms used by some of the cities. They illustrate the types of measurements included in many local analyses.

CAPITAL IMPROVEMENT PROGRAM
Priority Ranking Factors and Weights

	Factor	POINT
A.	Benefit to the City of El Paso	1-10
B.	The extent to which the task or line item provides support for a specifically required capability for the public sector.	1-10
C.	The extent to which the task or line item provides support for a specifically required capability in relationship to other outside matching state, federal, or private funding.	1-6
D.	The urgency of this task or line item in terms of required operational/completion date to meet public requirements or city council mandates.	1-6
E.	The cost-effectiveness in terms of the task cost versus value of the end item	1-6
F.	The relationship of this task to successful completion of other department's tasks (i.e., dependency on interdepartment tasks as applicable.)	1-4

(Proposed Enclosure to City Directive
or Whatever)

CITY OF EL PASO

CAPITAL IMPROVEMENT PROGRAM

PRIORITY RANKING FACTORS AND WEIGHTS

1. The points assigned may be changed in subsequent fiscal years depending on budget constraints, urgency of requirements, operational needs, value, or any other factors that the board deems necessary for successful and meaningful accomplishment of priority assignments. The factors have been weighted since it is recognized that all six factors which most affect the decision process and their weights are:

<u>FACTOR</u>	<u>POINTS</u>
a. The extent to which the task or line item provides support for a specifically required capability for the public sector or in relationship to matching state and/or federal funding.	1-10
b. The urgency of this task or line item in terms of required operational/completion date to meet public requirements or city council mandates.	1-6
c. The cost-effectiveness in terms of the task cost vs value of the end item.	1-6
d. The probability of successful development/procurement/implementation.	1-4
e. The relationship of this task to successful completion of other departments' tasks (i.e., dependency on interdepartment tasks as applicable.	1-4
f. The benefit to the City of El Paso.	1-4

2. Points are awarded to each task or line item based on how it compares to all other tasks subjected to comparison. One rule that must be observed in ranking a set of tasks is: If "n" is the number of tasks, then the following number of points can be awarded in each of the

following factor columns:

TASK	FACTORS						TOTAL POINTS	RANK
	a 1-10	b 1-6	c 1-6	d 1-4	e 1-4	f 1-4		
1								
2								
3								
.								
.								
.								
n								
	5n	3n	3n	2n	2n	2n		

This tends to spread the points over a large range and helps surface small differences between the tasks. For example, you may feel that all the tasks as a group are very low risk and of considerable importance to the community--thus all have a high probability for a successful acceptable but the rule does not permit awarding all 4's to each task. You must indicate which programs have a higher probability for success than the others (similar to grading on a curve).

- Once each board member has filled in his chart and totaled his points for each task, all the totals from each board member are added together and averaged. Once this is done a ranking list is prepared with the task or line item with the most points at the top and all other tasks lined up in descending point order.

FY 1986
 CAPITAL IMPROVEMENT PROGRAM
 EVALUATION SCORESHEET

Task #	A 1-10	B 1-10	C 1-6	D 1-6	E 1-6	F 1-4	Total Points
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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16							
17							
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25							
26							
27							
28							
Max. Point Total	140	140	84	84	84	56	588

DEPARTMENT: _____	PROJECT NAME: _____
BUREAU: _____	PROJECT NUMBER: _____
TOTAL SCORE: _____	

Is this project consistent with Orlando's Growth Management Plan? Yes No . If YES, proceed with the questions below. If no, return project request form to submitting department for project modification or further explanation of consistency with the GMP.

MAJOR CONSIDERATIONS:	SCORE RANGE	SCORE	SCORE
CONFIRMANCE TO GMP			
A. Service Area			
- City-wide	10		
- Downtown metropolitan activity center	9		
- Developing metropolitan activity center	8		
- Urban or community activity center within the fully developed area	7		
- Urban or community activity center outside the fully developed area	6		
- Not in an activity center but in the fully developed area	5		
- Not in an activity center and outside the fully developed area	4		
- Unincorporated area	3		
- Project has no direct bearing on these service areas	2		
B. Project's role in implementing policies and required actions of the GMP or adopted functional, activity or master plans which support the GMP.			
Directly implements	2		
Supports the general intent	1		
Does not affect element	0		
C. OTHER CONSIDERATIONS			
1. Degree of Impact on Budget			
Impact on Number of Personnel			
- Major Decrease (>-3 positions)	5		
- Moderate Decrease (-1 to -3 positions)	3		
- No Change (0 positions)	0		
- Moderate Increase (+1 to +3 positions)	-3		
- Major Increase (>+3 positions)	-5		
2. Impact on Operating Cost			
- Major Decrease (>-\$50,000)	5		
- Moderate Decrease (-\$10,000 to -\$50,000)	3		
- No Change (-\$10,000 to +\$10,000)	0		
- Moderate Increase (+\$10,000 to +\$50,000)	-3		
- Major Increase (>+\$50,000)	-5		
D. Degree of Urgency			
- Public or Employee Hazard	10		
- Amelioration of Service Deficiency	9		
- Maintenance of Service	8		
- Intergovernmental Coordination	7		
- Intragovernmental Coordination	6		
- Economic Advantage	5		
- Increase in Service	4		
- Convenience	3		
E. Project duplicates other available public or private facilities (with same service area).			
- Yes	-10		
- No	0		
F. Other factors not directly addressed above. Refer to instructions. Indicate your reasons for this score on the reverse of this form.			
	0 to 10		
G. Is this project required by legislative mandate?			
Yes			
No			

FEB. 25 1969

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ILLUSTRATION G

System for Establishing Priorities Among Proposed Capital Projects of the City of New Orleans

CRITERIA	3	2	1	0	P*	S*	W*	T*
1. Public Health and Safety	Project needed to alleviate existing health or safety hazard.	Project needed to alleviate potential health or safety hazard.	Project would promote or maintain health or safety.	No health or safety impact associated with project.	A		3	
2. External Requirements	Project is required by law, regulations, or court mandate.	Project required by agreement with other jurisdiction.	Project will be conducted in conjunction with another jurisdiction.	Project is City only and not externally required.	A		3	
3. Protection of Capital Stock	Project is critical to save structural integrity of existing City facility or repair significant structural deterioration.	Project will repair systems important to facility operation.	Project will improve facility appearance or deter future expenditure.	No existing facility involved.	A		3	
4. Economic Development	Project will encourage capital investment, improve the City's tax base, improve job opportunities, attract consumers to the City, or produce public or private revenues.			Project will have no significant economic development impact.	A		3	
5. Operating Budget Impact	Project will result in decreased costs in the operating budget.	Project will have minimal or no operating and maintenance costs.	Project will have some additional operating costs and/or personnel additions will be necessary.	Project will require significant additions in personnel or other operating costs.	A		3	
6. Life Expectancy of Project	Meets the needs of community for next 20 years or more.	Meets needs of community for next 15 to 19 years.	Meets needs of community for next 10 to 14 years.	Meets needs of community for less than 10 years.	A		3	
7. Percentage of Population Served by Project	50% or more	25% to 49%	10% to 24%	Less than 10%	B		2	
8. Relation to Adopted Plans	Project is included in formal plan which has Mayor/Council approval.	Project is included in written plan adopted by City board/commission.	Project is included in written plans of City staff.	Project is not included in any written plans.	B		2	
9. Intensity of Use	Project will be used year-round.	Project will receive seasonal and as-needed use.	Project will receive only seasonal use.		B		2	
10. Scheduling	Project to be started within next year.	Project to be started within 2 to 3 years.	Project to be started within 4 to 5 years.	Project is uncertain.	B		2	
11. Benefit/Cost	Return on investment for the project can be computed and is positive.		Return on investment cannot be readily computed.	Return on investment can be computed and the result is negative.	B		2	
12. Potential for Duplication		No similar projects are provided by public or private agencies outside of City government.		Project may duplicate other available public or private facilities.	B		2	
13. Availability of Financing	Project revenues will be sufficient to support project expense.	Non-city revenues have been identified and applied for.	Potential for non-city revenues exists.	No financing arrangements currently exist.	C		1	
14. Special Need		The project meets a community obligation to serve a special need of a segment of the City's population, such as low/moderate income, aged, minorities, handicapped, etc.		The project does not meet particular needs of a special population.	C		1	
15. Energy Consumption	Project will reduce amount of energy consumed.	Project will require no increase in energy consumption.	Project will require minimum increase in energy consumption.	Project will require substantial increases in energy consumption.	C		1	
16. Timeliness/External	Undertaking the project will allow the City to take advantage of a favorable current situation, such as the purchase of land or materials at favorable prices.			External influences do not affect the timeliness of this project.	C		1	
17. Public Support	Public has clearly demonstrated a significant desire to have the City undertake the project by way of neighborhood surveys, petitions, or other clear indicators.		City staff reports that the project is desired by the community to be served.	Public has not expressed a specific preference for this project.	C		1	

TOTAL SCORE

ADDITIONAL COMMENTS: Please use the back of this sheet to comment in the area on factors regarding this project not reflected in priority evaluations discussed here.

***KEY:**
P - Priority S - Score W - Weight T - Total

FOOTNOTES

¹James M. Buchanan and Marilyn R. Flowers, "Local Government Expenditures: An Overview," in Management Politics in Local Government Finance, eds. J. Richard Aronson and Eli Schwartz (Washington, D.C.: International City Management Association, 1975), p. 91.

²Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, Second Edition (New York: McGraw-Hill Book Company, 1976), p. 67.

³Deepak Lal, Methods of Project Analysis: A Review (Baltimore and London: The Johns Hopkins University Press, 1974), pp. XVII-XVIII.

⁴Lal, p. XVI.

⁵Lal, p. XVI.

⁶Theodore J. Anagnoson, "Equity, Efficiency, and Political Feasibility in Federal Project Selection Procedures," Policy Sciences, 14 (1982), p. 342.

⁷Elizabeth David, "Benefit-Cost Analysis in State and Local Investment Decisions," Public Administration Review, 39, No. 1 (January, 1979), p. 25.

8 If the alternatives are discrete projects, this is done at the point where the ratios of marginal benefits are equal to the ratios of the marginal costs for any two projects ($MB_x/MB_y = MC_x/MC_y$).

9 Follow-up letters are not used for two reasons. First, the problems of clearly identifying the appropriate official in each city lower the probability of success for a second contact. Local officials, in many cases, did forward the survey, but it is unlikely the same would happen with the follow-up letter. It is felt that the cost of the second contact could not be justified by the expected results.

10 Data as presented in The World Almanac & Book of Facts 1984 (New York: Newspaper Enterprise Association, Inc., 1984), pp. 207-235.

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