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CITIZEN CHOICES FOR MUNICIPAL SERVICES

by

JULIE BOATRIGHT WILSON

A dissertation submitted to the Graduate Faculty in Sociology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1978

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date

Chairman of Examining Committee

1/4/78
date

Executive Officer

Supervisory Committee

The City University of New York

Abstract

CITIZEN CHOICES FOR MUNICIPAL SERVICES

by

Julie Boatright Wilson

Advisor: Professor Edgar Borgatta

Citizen choices for desired delivery levels of municipal services are explored in an effort to understand the bases on which these choices are made. A series of working hypotheses and a working model are developed. These draw on literature in the area of public choice economics, social stratification and the consistency of political attitudes and belief systems, as well as ad hoc studies in the area of citizen choices. These working hypotheses explore the relationship between seven variables or sets of variables--age, income, educational attainment, home ownership, past service usage, perceived efficiency of service delivery, and general attitudes regarding the equity of the tax structure, efficacy of the local government, and the role local government should play in solving problems and meeting needs--and choices for municipal services.

In order to test these hypotheses data were collected through questionnaires answered by a sample of white male heads-of-household residing in Worcester, Massachusetts. Municipal service delivery level choices were factor analyzed to explore how citizens cluster services. The data reveal six factors. Five of these are specific service factors: police protection, fire protection, education, maintenance of arterial and utility capital, and federal welfare services. The sixth factor

clusters many personal services and is labeled general welfare.

The working model indicates that citizens make delivery level choices for each of these clusters of services based on different considerations. In the cases of general and federal welfare services, beliefs about the role local government should be playing in meeting citizen needs and solving problems is the variable found to be most important in explaining choice behavior. In addition, past service usage, age, income and perceptions of municipal employee and service delivery efficiency are found to influence these choices. In contrast, capital maintenance service delivery level choices are based primarily on specific contact with the services themselves. Perception that these services are inefficiently provided is the single most important variable in explaining this choice behavior and is associated with choices to increase service delivery. Perception that municipal employees are not productive depresses delivery level choices, while lower educational attainment and acceptance of property taxes are associated with choices for higher levels of these services. Similarly police and fire service choice behavior is influenced by perception of delivery efficiency. In contrast to capital maintenance services, however, while inefficiency is associated with choices for higher delivery levels, beliefs regarding the productivity of municipal employees is not related to choice behavior at all. Instead, age and belief that one should pay for services even if he does not use them are associated with choices for increases in delivery level. The working model does not explain choices for educational service delivery levels well, but it does indicate that increasing age and belief that the government should not be providing more services for

people than it now provides are associated with choices for decreasing these services.

Suggestions for further research that might improve the explanatory power of the municipal service delivery level model are presented in detail and with supporting rationales.

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INTRODUCTION

The problem this dissertation addresses is that of how urban residents would choose to allocate their tax money among a variety of municipal services.

Many American cities are in financial difficulty because the costs of running them at current levels of service provision are greater than the revenues they are generating. Despite recent publicity, however, this shortage of funds is not a new phenomenon.

Throughout the 1930's and into the 1940's, the costs of running local governments remained relatively constant, at about $8 billion (Wood, 1940: 62). Shortly after the end of World War II costs rose precipitously, reaching $17 billion by 1950 and more than doubling each decade thereafter. By 1973, local governments were spending $127 billion.

However, as Table I shows, revenues never kept pace with expenditures. In 1950 local governments took in enough money to cover only 71% of their operating budgets. This percentage continued declining until by 1973 local government revenue covered only 64% of operating budgets.

A number of explanations have been given for increased local expenditures, including: the growth in the number of local governments and the services they provide, citizen belief that the government can and should solve social problems (Lane, 1962), increases in local government employment (Ehrenberg, 1973; U.S. Department of Commerce, 1975), the absence of competitive forces in the public sector which theoretically might induce more efficient production (Bradford, et al., 1969), the inherent difficulty of achieving productivity increases for the kinds of services local governments provide rendering cities

Table 1

FISCAL SITUATION OF LOCAL GOVERNMENTS

(In Billions of Dollars)

Year	Expenditures	Revenue	Revenue As % Of Expenditures	Outstanding Debt
1950	$ 17	$ 12	71%	$ 19
1955	26	18	69	33
1960	39	27	69	51
1965	55	38	69	72
1970	92	60	65	102
1973	127	81	64	129

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1975. Washington, D.C.: 1975:250.

incapable of offsetting "...rising wages and salaries with cost saving innovations..." (Bradford et al., 1969:185), union and other pressures to keep city employee wages at a level comparable with those in private industry (Piven, 1974; O'Connor, 1973), demands on the part of citizen's groups, lobbies and other pressure groups to increase the scope and quality of local services (Piven, 1974), and encouragement by federal and state governments to increase local spending through the use of matching funds, revenue sharing, and other financial incentives (Gramlich and Galper, 1973). In addition, individual citizens by their active support and voting as well as their apathy have encouraged this trend toward increased services and expenditures.

Given this trend, the future for local government finances does not look hopeful:

> ...the historical record together with some further reflections indicates...that local (especially large city) governments can probably expect that costs will continue to rise cumulatively and at a more rapid rate than those in the rest of the economy even if there is no increase either in the quantity or quality of the services provided. Increasing expenditures appears to be the price of simply standing still. Any programs designed to expand the quantities of existing services to meet the needs of an expanding population or any attempts to improve the quality of these public services mean additional expenditures over and above those resulting from the seemingly inexorable rise in costs per unit of output.[1]

Responses to the growing awareness of this local fiscal crisis have been many. Local governments have attempted to shift some of their expenses to the state or federal levels, searched for new sources of

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[1]D.F. Bradford, R.A. Malt and W.E. Oates, "The Rising Cost of Local Public Services: Some Evidence and Reflections," National Tax Journal XXII (June, 1969), 185-186.

revenue, and attempted to retrench or streamline existing services. Individual citizens and interest groups have pressured for changes in the tax base, demanded more efficient production of services, rebelled at the polls, and made demands for cutbacks in local expenditures.

To date these efforts have not succeeded in providing a solution to the continuing fiscal crisis. Attempts to shift the costs of providing certain municipal services to other governmental levels and attempts to rearrange current sources of revenue or find new sources of revenue have not succeeded in providing enough money to pay the increasing costs of service provision. And while many citizens appear to like the idea of cutting back on taxes by cutting back services in general, specific retrenchment proposals have always met with objections. This is due in part to the inability of many citizens to see the connection between specific services and costs (Mueller, 1963), leading them to underestimate the cost to themselves of running the city government. But it is also due to differential usage patterns and evaluation of services among different groups of individuals, rendering some groups willing to cut back on or do without those services that other groups consider necessary.

The problem this thesis proposes to explore concerns the amounts of various urban services different types of people would choose to purchase, given the knowledge that any increases in services would mean an increase in taxes and any decreases in services would mean a decrease in taxes. How do these choices differ among individuals differentially located in the social structure, as measured by their income, education, age and ownership of property, their attitudes toward the local government, their perceptions of the efficiency with which the local

government provides services, and their usage of services? What are the bases on which citizens make decisions about delivery levels for different types of services? And what does this observed choice behavior suggest about the manner in which municipal expenditure decisions should be made?

Chapter I.

REVIEW OF THE LITERATURE

Little work has been done that directly addresses the three questions raised by this thesis: How do choices for municipal service delivery levels differ among individuals differentially located in the social structure? What are the bases on which citizens make decisions about delivery levels for different types of services? And what does observed choice behavior suggest about the manner in which municipal expenditure decisions should be made? Both economics and sociology, however, provide well-developed bodies of literature which can be drawn on to build a working model and working hypotheses that can be used to explore various aspects of these questions.

The economics literature most useful in addressing these questions is that of political and public choice economics, which raises the questions of what the optimum level of public goods production should be and how it should be determined. A second area of economic research, that of the determinants of municipal budget size, is tangentially relevant and is briefly discussed in Appendix B.

In the field of sociology two research traditions, each drawing heavily on stratification literature, are useful. One considers questions of political ideology and the extent to which different individuals hold logical, constrained belief systems. The second centers on how individuals located in different positions in the social structure view society and the extent to which they benefit or fail to benefit from social policy.

Each of these traditions and their usefulness in exploring the questions of how different types of individuals will choose to spend municipal monies is discussed below.

Political and Public Choice Economics

The most thoroughly developed body of literature specifically addressing questions of municipal service expenditure is that of political and public choice economics, which primarily raises the question of how decisions should be made to insure production of the optimum level and array of municipal services and other public goods.

Modeling their theories after market theories addressing the problems of production and distribution of private goods, these economists begin with the individual, assume there are a diversity of goods and services and assume individuals will choose the alternatives that best satisfy their self-interests. In addition, in a relaxation of assumptions used in more traditional models, they assume that individuals act on imperfect knowledge of the alternatives available to them, do make mistakes in judgment, and may not be willing to pay the costs of obtaining information on which to base decisions (Bish and Ostrom, 1966). These models focus on elections as the market proxy for registering preferences, assuming that governments are elected by majority rule, that all can vote, and that "...entry into political activity is both brisk and unrestricted," (Borcherding and Deacon, 1972:891). Breton argues that "...to maximize the probability of their re-election, governments endeavor to 'produce' those policies which can be exchanged for the largest...number of votes" (Breton, 1966:455). And

Borcherding and Deacon conclude that if these assumptions hold, "competition between political entrepreneurs leads to the election of a government that chooses a platform identical to the optimum position of the median voter" (Borcherding and Deacon, 1972:891).

This suggests that theoretically decisions regarding the optimum amount of public goods to be produced could be made in political settings similar to those found in most American municipalities. However, the assumptions made in these models do not reflect actual conditions, and their relaxation severely restricts the usefulness of the model for predicting what optimum public goods production levels should be. More specifically, in the hypothetical case in which there are only a few alternatives among which to choose on a few relevant issues, where there are a number of candidates each expressing clearly the alternatives for which he stands, and where all vote, the results of an election may indicate the preferences of the median voter-citizen. In typical municipal elections, however, there are many issues, platforms do not necessarily offer clear alternatives, there is not always brisk competition, and candidates' views on the issues, often unclear, are further obscured by personality differences. In addition, "...different forms or structures of governmental organization create different incentives for public officials and public employees to 'serve' the preferences of citizens or to ignore their preferences," resulting in elections that may not accurately reflect median voter preferences (Bish and Ostrom, 1966:106).

These complications have discouraged economists from testing their models by studying platforms and general elections and encouraged

instead inspection of the results of voting on specific referenda. Most of these studies, discussed more thoroughly in Chapter II, are based on areal data, explore variations in median voting patterns among residents of various census tracts or precincts, and explain the results by differences in such socio-economic characteristics as income and home-ownership. This empirical work has resulted in a theoretical shift away from concern about optimum public goods production based on median voter preferences to construction of rationales for observed voting behavior.

It is here, however, that public choice models are weakest, because they lack a well-developed theory of choice behavior and differential cost perception. The essence of public choice theory is an individual's subjective evaluation of the costs of various alternatives at the moment of choice-making behavior. Although basing their models on a recognition of this subjectivity of cost perceptions, public choice economists generally fail to explore these perceptions systematically. Ingoing assumptions that individuals act rationally to improve or maximize their utility leads to acceptance of self-interests and perceived costs of alternatives as givens, rather than to explorations of their development, how and why they might differ from individual to individual, how they might differ for one individual over time, and exactly how they can be expected to influence choice behavior.

In the private goods market, on which public goods models are based, individuals make purchace decisions based on preferences, budget constraints and availability of products. Dollar costs of purchase alternatives are known, allowing decisions to be based primarily on

the utility of alternative uses of the same amount of money. In the case of public goods purchase decisions, however, dollar costs are seldom available, and when available are seldom individualized. Budget constraints are less personal and therefore less obvious. Product availability and opportunities for switching "brands" or "products" are limited by lack of competition. Purchase decisions and purchases are usually made jointly rather than individually. And individuals are seldom in a position which allows them to select the alternatives on which they would spend municipal monies.

This results in lack of awareness of the actual dollar costs of municipal services, encourages dependence on more subjective perceptions of costs, and probably tends to focus attention on the benefits of municipal services. This focus is reinforced by the political process which stresses the "need" for certain services and the "benefits" given programs will bring.

This suggests that in order to understand municipal service delivery level choice behavior, greater attention should be given to exploring the bases on which these choices are made. What do different individuals perceive to be the benefits as well as the costs of making certain purchase choices? How does the relative importance of these perceptions of benefits and costs vary from service to service? Exactly how do these perceptions of benefits and costs influence choice behavior? And what other considerations do individuals take into account when making decisions regarding municipal service delivery levels?

It is here that sociological theory is useful in providing a framework for developing a working model of individual choice behavior. The literature dealing with consistency of belief systems and the stratification literature dealing with differential benefits of social policy can be drawn on to develop a series of working hypotheses that can be used to explore the question of the bases on which these choices are made.

Consistency of Political Attitudes and Ideologies

There is a body of literature which considers questions of political ideology, the differences in attitudes and beliefs held by individuals located in different positions in the social structure, and the extent to which these beliefs form logical, constrained systems. The major finding of the empirical studies in this area that have in total or in part been directed at citizen attitudes toward governmental services, policies and expenditures is that most individuals hold inconsistent and unconstrained sets of belief systems or ideologies, which are not just illogical but often contradictory.

Converse and Axelrod in the United States and McDonald in Canada concluded that the vast majority of voters in each country do not subscribe to organized, logical belief systems (Converse, 1964; McDonald, 1971). Free and Cantril, in an American study, found that blue-collar workers hold contradictory beliefs on many subjects when presented with a concrete and an abstract statement of similar situations (Converse, 1964). Mueller and the Urban Observatory research team found a similar pattern among less educated and lower income respondents who were

presented with choices for determining the amount of overall government spending versus the amount to be spent on specific service items (Mueller, 1963; Urban Observatory, 1971). In separate studies Converse, Mueller and Mann concluded that only the upper income and better educated citizens, the elite, or those actually sharing in societal power had developed or needed to develop consistent societal values and belief systems in which both specific and more abstract beliefs and values were logically related (Mueller, 1963; Converse, 1964; Mann, 1970).

While findings from these studies, discussed more thoroughly in Chapter II, appear to point to a lack of logical consistency in overall belief systems, they simultaneously suggest that beliefs about government expenditures and policy are not totally random. In fact, individuals located in similar positions in the social structure, as characterized by similarities in demographic characteristics, background characteristics, and living conditions, tend to hold similar views on specific items. This suggests that there are patterns of cost and benefit perception, that individuals located in different positions in the social structure perceive themselves to pay for and to benefit differentially from various governmental services and policies.

The fact that attitudes toward specific situations and services appear to contradict more general attitudes and beliefs about the government suggest that the bases for making choices in the area of public goods may be extremely complex. This is particularly true since for many specific situations the individual citizen will have little information on which to base decisions and may have to rely on more

general attitudes. This raises the question of how attitudes toward specific situations, including perceptions of costs and benefits, and more general, abstract beliefs are related to one another and how they operate in influencing choices for governmental services and policies.

Chapter II tries to organize the thinking in the area of citizen choices for municipal services, drawing on those few studies that have dealt with this topic and the variables they explore. This literature is used to develop working hypotheses and a working model that can be used to explore the bases on which choices for different types of municipal services are made.

Chapter II.

WORKING HYPOTHESES EXPLORING DIFFERENTIAL CHOICE BEHAVIOR

In order to investigate the question of differential choices for municipal services it is useful to develop a series of working hypotheses designed to explore those variables considered important in influencing choice behavior. These working hypotheses probe how the variables operate individually and are gathered together in a working model to explore how the variables interact in influencing choice behavior. The variables selected for the working hypotheses are drawn from the literature that was briefly discussed in Chapter I and are more fully explored in the development of the working hypotheses themselves.

To predict differential choices for municipal services, one must illuminate those processes and situations which cause differences in preferences and evaluations of the costs and benefits of various service delivery level choices. It is assumed here that preferences for municipal services are based in part on personal values, which include perceptions of desired end states for both the individual himself and the rest of his community, and in part on habituation to current service and payment levels.

Different people have different values, arising from differential location in the social structure and different perceptions of personal wants and community problems. And even those desiring similar end states may have different attitudes about what constitutes appropriate government action for achieving these end states (Lane, 1962). It is these values that argue for service delivery level changes: individual

preferences for expanding, reallocating or reducing the scope of municipal services and budgets.

Choices are also influenced by expectations for the continuation of municipal services at their level of current operation. Individuals may become accustomed to spending certain amounts of money and receiving certain services (Lynd and Lynd, 1929). It is this habituation that argues against changes in service delivery, despite differences in values held.

This suggests that in order to predict how different citizens will choose to spend money for municipal services, it is necessary to first explore the types of personal and community problems and end states or goals toward which they perceive these municipal services to be directed. An understanding of how individuals group municipal services in their own minds is necessary for understanding the bases on which they make decisions regarding the level of these municipal services they would choose to purchase.

While municipal services may cluster along lines of government departments for service providers, it is hypothesized that among consumers these municipal services cluster into groups that are characterized by the perceived similarities of the problems they are attempting to solve, or the goals toward which they are directed. These problem solutions or goals can be characterized as either benefiting the individual directly or as benefiting him indirectly by benefiting others in the community of which he is a part or by benefiting the community as a whole.

There are no theories that deal explicitly with how individuals perceive and cluster the benefits of municipal services. However, Maslow's theory of human needs, posited as a theory of behavior motivation, could be used to develop such a clustering.

Maslow developed a theory of a hierarchy of human or personal needs along which an individual was hypothesized to ascend in steps, not proceeding to a higher level until the needs on one level had been substantially met. It is not the notion of progress that is important here, but rather the manner in which the needs cluster and influence behavior. Maslow posited five categories of needs--physiological, safety, love, esteem and self-actualization--and hypothesized that an individual's behavior is motivated and directed by fulfillment or lack of fulfillment of these needs. Fulfillment of these needs is hypothesized to be an end state valued by individuals (Maslow, 1968).

For most individuals these needs are currently met by a variety of sources, including the municipal government. In fact, the role of municipal government in providing services to meet all these needs, especially physiological and safety needs, has increased.

It is hypothesized here that in choosing how to allocate municipal monies individuals will, by their choice behavior, cluster services into groups in the manner in which they provide benefits to meet the needs delineated by Maslow. Chart 1 shows specifically how municipal services are hypothesized to cluster in correspondence to Maslow's theory. For a more thorough delineation of these services in relation to Maslow's needs, see Appendix A.

Chart 1.

HYPOTHESIZED CLUSTERING OF MUNICIPAL SERVICES
BASED ON MASLOW'S THEORY OF NEEDS

Basic Individual Maintenance Services

Meeting physiological needs through food, shelter, clothing, health care, employment, income, etc.

Social Control and Protection Services

Providing for the safety of an individual's immediate environment or personal space through police, fire protection, jails, sanitation, pollution control, etc.

Education, Social and Individual Development Services

The provision of tools and skills for self development through such services as schools, counseling services, adult education, etc.

Cultural and Recreational Services

Provision of opportunities for self development through libraries, museums, theaters, parks, sports arenas, etc.

Community Development Services

The provision of opportunities for community development through such services as road construction and transportation coordination, business development, job development, etc.

Individual Rights and Civil Liberties

The guarantee of the right to gain skills and exploit opportunities through such services as equal employment laws, consumer protection, legal aid, etc.

Choices for Service Delivery Levels

There are a number of variables along which individuals can be differentiated that could be expected to influence their behavior in choosing the level of municipal services they feel should be provided. However, it is not expected that all variables are equally important in differentiating these choices, and this research concentrates only on those which are hypothesized to be the most salient. For a fuller delineation of relevant variables, see Appendix B.

It is suggested that in any given city municipal service delivery level choices differ from person to person depending on location in the social structure, usage of services, perception of the efficiency of current service delivery and attitudes toward the local government.

Position in the social structure should be important in influencing an individual's perceptions of the needs and problems facing himself and the community and the benefits that could be derived from various municipal services.

Service usage, influenced somewhat by an individual's location in the social structure, is a measure of direct benefit to the individual of specific services.

Perceptions of the delivery efficiency of municipal services are measures of an individual's perception of the quality of benefits he receives relative to the costs he perceives himself to pay for specific services. Efficiency perceptions are probably influenced somewhat by position in the social structure and past service usage.

Generalized attitudes toward the performance and role of local government should be the major variables influencing choices for municipal service delivery levels because of their influence on an individual's perception of what constitutes appropriate government action in meeting perceived needs and problems. While influenced by the other variables measured, these attitudes should also operate independently, intervening between position in the social structure and experience with specific services on the one hand and choice behavior on the other.

This working model of choice behavior is illustrated in Chart 2.

Position in the Social Structure

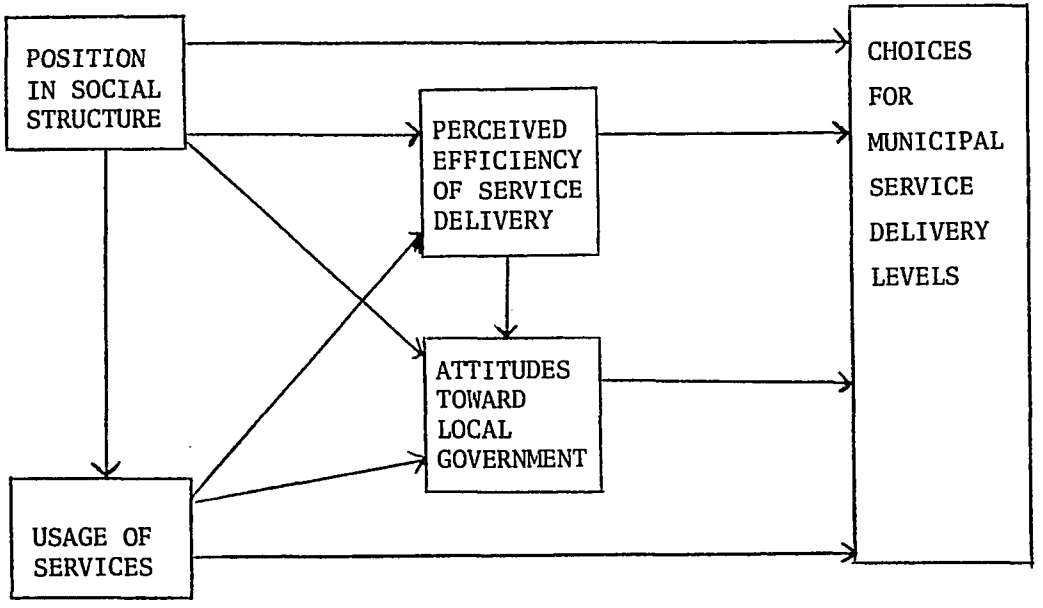
Position in the social structure is measured by the variables age, income, educational attainment and home ownership.

A person's age should influence municipal service delivery level choices by influencing levels of service habituation and perception of needs.

On the one hand, older people, because they are older, should have formed their expectations for municipal services at an earlier time when the various levels of government were not as extensively involved in delivering services and when the costs of municipal services were consequently much lower. The habituation of older people to lower levels of services and taxes should result in their having expectations for fewer services from the government and more personal, fewer government solutions to perceived needs and problems than younger people, who are habituated to a higher level of municipal services

Chart 2.

WORKING MODEL OF MUNICIPAL SERVICE DELIVERY LEVEL CHOICE BEHAVIOR



(Glenn, 1973; Glenn and Hefner, 1972; Klecka, 1973).

This reasoning is supported by the work done by Mueller who, though observing only small differences in preferences for federal government services among people of different ages, found that older people tended in general to desire a more limited scope of government. Those fifty-five and older had less of a tendency to want to increase government spending and a greater desire to reduce debt and lower taxes than did their younger counterparts (Mueller, 1963).

At the same time, however, older people can be expected to perceive themselves to have greater needs in some areas than younger people. Older people, particularly the very old, may perceive themselves to have many personal needs which they cannot meet themselves because of fixed incomes, failing health, and inability to work. This may result in older people feeling more dependent on others, with preferences for having some of these needs met by the government.

This suggests that one working hypothesis should be:

> Older people are more likely to choose lower delivery levels than younger people for almost all municipal services areas. The only exceptions are individual maintenance services, particularly health, and social control and protection services, where there should be no differences among people of different ages.

A person's educational attainment should influence his choices for municipal service delivery levels by influencing the scope and consistency of his perception of needs, problems and range of possible solutions.

People with more education should be more likely than people with less education to be aware of the needs of others besides themselves, have a more well-developed view of the interaction of needs with one another, have a long-term time perspective on servicing needs rather than a stop-gap perspective, and place more emphasis on servicing needs at the root of the problem or at a preventive stage. Each of these factors leads more educated people to perceive more needs than less educated people, both for themselves and for others in the community (Williamson, 1974).

At the same time, however, people with more education should have a more integrated view of the relationship between services and their costs. This, combined with the flexibility and adaptability to change that are associated with continuing education, should lead more educated people to perceive a wider range of alternatives for solving and financing solutions to perceived needs and to be less habituated by current service levels and sources. This should encourage less dependence on municipal government for meeting these needs on the part of more educated people.

These suggestions of how educational attainment influences behavior could explain the findings of the few studies which have explored governmental service delivery level choices among individuals of different educational attainment. Mueller, in her study of citizen choices for federal government services found that better educated respondents were somewhat more willing than less educated respondents to pay taxes, "...presumably to finance the government programs which they advocate..." (Mueller, 1963:232). Similarly, an Urban Observatory

study exploring expenditure choices for municipal services found that, "There was a clear tendency in all cities for better educated people, more often than less educated people, to favor raising taxes rather than cutting services. When asked about selected services, however, less well educated people were more likely to favor increased expenditures" (Urban Observatory, 1971:229-230).

This suggests that a working hypothesis relating educational attainment to municipal service delivery level choice behavior should be:

> Less educated people are more likely to choose higher levels of municipal service delivery than more educated people. The exceptions will be in the areas of education, individual rights and civil liberties, and community development where more educated people are more likely to choose higher delivery levels than less educated people.

There is a considerable amount of data relating income levels to municipal service delivery level choices. These empirical data indicate that income is related to choice behavior, probably by influencing the perception of benefits relative to costs in general, but that the direction of this relationship varies from service to service.

Frey and Kohn, looking at a series of referenda votes in Switzerland, found that there were distinct patterns of support for various issues among voters of different income groups. Income was found to be positively associated with support for expenditures for cultural activities and benefit taxation and negatively associated with support for sports and for direct redistribution measures in

favor of the poor (Frey and Kohn, 1970).

Similarly, Mueller found that while members of all income groups supported increased federal government expenditures, there were differences in where they preferred to see the government increase expenditures. Programs directly benefiting the poor, such as "...aid to the needy, aid for the unemployed, hospital and medical care, and public works" were more widely advocated by lower income respondents. In contrast, "...aid to small business and highway construction receive widest support in the upper income group" (Mueller, 1963:230).

Similar results were found in the Urban Observatory study, as shown in Chart 3 (Urban Observatory, 1971).

Despite the emphasis on specific service choice differences, these studies generally found that the lower income voters are more likely to support expenditures than the higher income voters. A study by Wilson and Banfield, however, contradicts this generalization with the finding that higher income people are not necessarily less inclined to vote for public expenditures than lower income people. Looking at voting referenda in five American cities, they found that among the poorest precincts and those with the highest percentage of non-homeowners, nearly all expenditure proposals were approved and, in fact, received the highest margins of support of any area of the city. However, among homeowners the higher income voters were more likely to support public expenditure proposals than the lower income voters. "...the higher the income of a ward or town, the more taste it has for public expenditures of various kinds. That the ratio of benefits to costs decline as income goes up seems to make no difference" (Wilson and Banfield, 1965:78).

Chart 3.

SERVICES ON WHICH A MAJORITY WANTED TO INCREASE SPENDING IN AT LEAST SEVEN OF THE TEN URBAN OBSERVATORY CITIES

By Income

Under $5,000	$5,000 - $9,999	$10,000 And Over
Schools	Schools	Schools
	Police	Police
Streets		
Teen Recreation	Teen Recreation	
Medical Care	Medical Care	
Inspect Houses	Inspect Houses	Inspect Houses
Drugs	Drugs	Drugs
Low-income Housing	Low-income Housing	
Air Pollution	Air Pollution	Air Pollution
Welfare and AFDC		

Source: Urban Observatory, "City Taxes and Services: Citizens Speak Out," Nation's Cities (August 1971), 15.

It is clear from this empirical data that there is a relationship between income and choice for municipal service delivery levels, although exactly how this relationship operates is unclear. In general, however, the data suggest that income influences choice behavior by influencing perceptions of the costs of services relative to the benefits received.

People with low incomes receive a disproportionate share of municipal services, particularly basic individual maintenance services, relative to the taxes they pay. For this reason, they should perceive that these services are a good value for the money and should tend to demand more of them than do people with higher incomes.

People in the highest income categories tend to pay more in taxes than people with less income. However, because they also tend to have more property allowing them to take advantage of services and more expendable income, they should perceive the relative costs of these services to be lower than do middle income families. Consequently, people with high incomes are likely to choose to have a relatively wide range of municipal services (Brazer, 1959; Brennan, 1973).

It is people in the middle income ranges who probably perceive themselves to be receiving the fewest benefits relative to the costs of municipal services. They tend to pay more in taxes than the poor, use fewer services than the poor relative to the taxes they pay, and have less expendable income than the well to do.

This suggests that a working hypothesis relating income level to municipal service delivery level choice behavior should be:

> The relationship between income and municipal service delivery level choice behavior is curvilinear with middle income people choosing the lowest and lower income people choosing the highest levels of service delivery. The exceptions are in the area of community development, where lower income people should choose to have lower levels of service delivery than upper income people, and social control and protection services, where there should be no differences among individuals in different income groups.

Home ownership, like income, should influence municipal service delivery level choices by influencing the perception of costs of services relative to the benefits received, because of the dependence of most municipalities on property taxes for a substantial proportion of revenues.

When revenues are raised primarily through property taxes, home owners should be more aware of the costs to themselves of municipal services than renters. This should lead home owners in comparison to renters to choose to have fewer services that would benefit themselves personally and to choose to have more services that would raise the value of their personal property.

Because renters in this same situation may feel that they pay little or nothing for municipal services, they should perceive municipal services to be an extremely good value for the money. This should influence them to chooose to have more municipal services in all areas, especially those services that benefit themselves personally.

These suggestions of the relationship between home ownership and choice behavior are supported by empirical data. As reported earlier, Wilson and Banfield found renters more inclined to vote for increased spending in all areas than homeowners (Wilson and Banfield, 1965). Similarly, the Urban Observatory study found that in all cities studied "renters were consistently more willing than homeowners to raise taxes rather than cut services" (Urban Observatory, 1971:5). And in a study of a tax substitution referendum in Washington state that would have allowed the substitution of an income tax for part of the property tax, Lucier found that renters gave the substitution referendum less support than homeowners (Lucier, 1973).

This suggests that a working hypothesis relating home ownership to municipal service delivery level choice behavir should be:

> Renters will choose to have higher levels of municipal service delivery than homeowners in all areas except social control and protection and community development services. In the latter areas there should be no differences between the two groups.

Service Usage

Independent of these variables measuring an individual's position in the social structure, three additional variables should be important in differentiating individual choices for municipal service delivery levels: service usage, perceptions of the delivery efficiency of specific municipal services and general attitudes toward the local government and the role it should play in meeting needs.

Service usage is an indication of direct benefit to the individual. It is assumed that individuals who have benefited directly from certain municipal services will be more interested in having these services maintained at current or increased levels than will individuals who have not benefited directly from these same services (Williamson, 1974).

Consequently, a working hypothesis relating service usage to municipal service delivery level choice behavior is:

> Those individuals who are currently using or who have previously used specific municipal services will choose to have higher levels of service delivery in that area than will non-users.

Perceived Efficiency of Service Delivery

Perceived efficiency of municipal service delivery should affect choices for municipal service delivery levels by influencing perceptions of benefits received from specific services relative to costs of these services. For any number of reasons, efficient services provide higher levels of benefits per dollar spent while inefficient services provide lower levels of benefits for the same money outlay. Economic theory would suggest that inefficient municipal service production would encourage decreases in demand as individuals shifted their purchases to alternative, more efficient sources.

However, empirical data indicate that perceived inefficiency may not operate in this manner in the case of municipal service purchase choices. In fact, the Urban Observatory team found that perceived inefficiency of service delivery was related to demands for increases

in service delivery. "An important element in the equation of demands for more services without further taxation was the perception that people were not getting their money's worth for their tax dollar" (Urban Observatory, 1971:10). Lower income people, less well-educated people and blacks were more likely than higher income people, better educated people and whites to feel that they were not getting their money's worth for their tax dollar and consequently to demand more services without an increase in taxes. The authors suggested citizens rationalize that if efficiency were increased, more services could be provided for the same amount of money.

An alternative explanation for the failure of perceived inefficiency to be related to decreased demand for services may lie in the importance of benefit perception relative to the importance of cost perception. As was explained in Chapter I, in a public goods situation dollar costs are seldom available to the consumer because of current methods of payment for services, opportunities for switching "brands" or "products" are seldom available because of lack of competition, and purchase decisions and purchases are made jointly rather than individually. These conditions result in differential perceptions of actual dollar costs of municipal services. In other words, when the benefits of a given service are deemed desirable or necessary, citizens may focus on the desired level of benefits rather than costs because personal costs are so obscured by the method of service provision and payment.

This suggests that a working hypothesis for exploring the relationship between perceived municipal service delivery efficiency and choices for the amount of services that should be delivered is:

Those who see municipal services provision as inefficient will choose to have a higher level of municipal service delivery than those who do not see this provision as inefficient.

Attitudes Toward the Local Government

The relationship between three different sets of general attitudes or beliefs and municipal service delivery level choice behavior are explored here, those dealing with assessment of local government performance, equity of the tax structure and the role the local government should play in meeting needs and solving problems.

One attitudinal dimension that should be related to municipal service delivery level choice behavior is trust in the local government. Those who trust the government and assess its general performance positively should be more likely to choose to have the government meet perceived needs than those who do not exhibit this trust in government. A study by Ippolito and Levin supports this in finding that class and ethnic differences in support for public transportation expenditures in Atlanta were best explained by underlying attitudes regarding government performance. "When future governmental performance is assessed positively, support for the immediate proposal is greater than when governmental performance is assessed negatively" (Ippolito and Levin, 1970:632).

This suggests that one working hypothesis for exploring this relationship between attitudes and municipal service delivery level choice behavior should be:

> Those individuals who trust the local government and assess its performance positively will choose higher levels of municipal service delivery in all service areas than those with negative attitudes toward the local government.

A second attitudinal dimension whose relationship to choice behavior should be explored is that of the perception of the fairness of the tax structure. Those who feel that they pay a disporportionate share of the costs of running city government, choose to lower these costs. In contrast choices of those who feel the tax burden is fairly distributed should not be influenced by the equity issue.

This suggests that an additional working hypothesis for exploring the relationship between attitudes held and municipal service delivery level choices should be:

> Those who think the tax structure or method of financing municipal services is unfair will choose lower levels of municipal service delivery than those who think the tax structure is equitable.

A third dimension of attitudes that should relate to choices for municipal service delivery levels is that of the role the government should play in meeting perceived needs and problems. For any specific problem or need there is a wide range of possible solutions, not all of which call for government involvement. This suggests that individuals perceiving similar problems may hold different attitudes about the extensiveness of the role of government in solving these needs. Consequently, a third working hypothesis relating attitudes to municipal

service delivery level choices should be:

> Those individuals who believe the government should take a wider role in solving problems will choose higher delivery levels for all service areas explored than will individuals who feel citizens should be solving problems on their own.

Working Model

A working model exploring how these variables--position in the social structure, service usage, perceived efficiency of service delivery, and general attitudes toward the municipal government--influence choice behavior was discussed earlier. At that time it was suggested that a person's position in the social structure, measured by his age, income, educational attainment and home ownership, would relate to choice behavior by influencing this perception of problems and solution alternatives and his perception of the benefits he received in general from municipal services relative to the costs of these services to him.

Service usage, influenced somewhat by a person's position in the social structure, operates as a measure of direct benefit of specific municipal services to the individual.

Perceived efficiency of municipal services operates as a direct measure of an individual's perception of the quality of benefits he receives relative to the costs he perceives himself to pay for specific services. Service delivery efficiency perceptions should be influenced by position in the social structure and past service usage.

General attitudes toward the local government operate as a

measure of assessment of its current performance and as a measure of a person's belief regarding the extent to which local government should be involved in solving problems. While influenced somewhat by position in the social structure, general attitudes toward the local government should be important independently in influencing choice behavior. In fact, it was suggested earlier that general attitudes toward the local government would be the most important variables influencing individual choices for municipal service delivery levels, intervening between need and problem perception and choice behavior. This is because individuals perceiving similar problems and having similar perceptions of the benefits of services relative to their costs may make different choices because they hold different attitudes regarding the efficiency of current government efforts at providing services and the role the government should be playing in solving these problems.

This working model is pictured in Chart 2.

Each of these working hypotheses and their relative importance in explaining choices for municipal service delivery levels, the working model, are more fully explored in later chapters.

Chapter III.

STUDY DESIGN

In order to test the working hypotheses exploring the relationship between the variables position in the social structure, service usage, perceived service efficiency, and attitude toward the government and individual decisions concerning the levels at which various municipal services should be provided, interviews were collected from a sample of residents in Worcester, Massachusetts.

Worcester was selected because it is a medium-sized industrial city that is relatively isolated geographically. This allows the investigator to explore choices for level of municipal service delivery without having to be concerned about contamination by spillover effects with nearby towns and suburbs. In addition, Worcester has a good distribution of residents in each of the categories of demographic variables considered important in influencing municipal service choice behavior--age, income, education and home ownership. In particular, since slightly under half (46.1%) of its housing stock is owner-occupied, a sizeable number of owners and renters are to be found in all income categories. And because Worcester relies almost solely on property taxes for revenues, it is a city in which the hypothesized differences in service choices between owners and renters should be maximized.

Worcester is somewhat unique, however, in that its population is almost totally white. As late as 1970, non-whites made up less than two percent of the population, although 37 percent of the population

was of foreign stock. While this operates to minimize the influence of race in choice decisions, it also suggests that the results of such a study in Worcester might not be generalizeable to choice behavior in other more integrated situations. (For a more complete description of Worcester, see Appendix C.)

In order to focus as sharply as possible on the four major demographic variables of analysis--age, income, education and home ownership--responses were solicited from a stratified cluster sample of while male heads-of-household. (A detailed descritpion of the sampling process is contained in Appendix E.)

The data were collected by means of a hand-delivered, mail-back questionnaire. Questionnaires were personally delivered to a sample of 400 residents, the purpose of the study was explained, and each resident was encouraged to complete the questionnaire and mail it back. Residents who had not returned a completed questionnaire within one week of delivery were sent a letter encouraging them to do so. A total of 247 useable questionnaires, 61.75% of those delivered, were returned. (A discussion of possible response biases is contained in Appendix E.)

In the interview schedule, Worcester residents were:

--given a list of municipal services and asked whether they would prefer to cut back services in each of these areas in order to save taxes, maintain services at their current level, or increase services although this would mean an increase in taxes. (The service delivery level choice question.)

--asked to rate this same list of services in terms of how good a job each one of these services was doing to meet the needs of city residents, considering the amount of money that was spent. (The service efficiency question.)

--asked to indicate which services on an abbreviated form of this same list they or members of their family had ever used.

--asked to respond to a series of attitude statements dealing with government efficiency and honesty and the equity of the tax structure.

--asked to respond to a series of questions designed to obtain demographic information.

(A detailed description of the decisions involved in constructing the questionnaire and a copy of the questionnaire are contained in Appendix D.)

In order to test the working hypotheses presented in the preceding chapter, the data gathered from Worcester residents is analyzed in the following manner:

The choices made for levels of delivery of the various services are factor analyzed to determine whether Worcester residents actually cluster services in the manner hypothesized.

Each individual measure of position in the social structure-- age, income, education and home ownership-- is correlated with the observed clusters of service choices to determine if the hypothesized relationships between demographic

characteristics and choice behavior is observed. Multiple regression techniques are then used to explore the interactions of these demographic variables in influencing choice behavior, by using the observed choice clusters as dependent variables against which the demographic variables are regressed.

A series of three additional regressions are run in which service usage patterns, perceived efficiency of service delivery, and attitudes toward the local government are regressed against each observed choice cluster in order to determine the influence of these variables individually on choice behavior.

In order to explore the bases on which individuals make municipal service delivery level choices, the hypothesized working model probing the relative importance of these variables in influencing this choice behavior is explored in the following manner:

A final stepwise multiple regression is run with each observed service choice cluster to explore the relative importance of the four sets of variables, demographic characteristics, service usage patterns, perceived efficiency of current service delivery, and attitudes toward the local government in influencing choice behavior. In these regressions all explored variables are regressed against each observed service choice cluster.

A series of shortened stepwise multiple regressions are run with each observed service cluster using the variables found to be empirically important in the preceding regressions. The purpose of these shortened empirically derived "working models" is to further explore the question of the bases on which individuals make choices for expenditure levels for different clusters of services.

Chapter IV.

MUNICIPAL SERVICE DELIVERY LEVEL CHOICE CLUSTERS

In order to test the working hypotheses developed in Chapter II, respondents were asked to choose the level of service delivery they would prefer to purchase for 29 separate municipal services. These specific services, delineated in Table 2, were selected to provide a good cross-section of municipal services and to include those services which account for the bulk of any city's expenditures.

For the most part, Worcester residents want to maintain services at their current levels. However, there are some services for which there is considerable interest in changing the level of delivery. Close to half of the residents responding would choose to increase service delivery for all types of police protection, street and sidewalk repairs, and the encouragement of business and industry to move into the city. In contrast, over half the residents responding desire decreases in service delivery in the areas of running the city government, and such welfare-type programs as free legal aid, food stamps or other food programs, and welfare or other money programs. Table 2 shows how citizens chose to spend money on the 29 services explored.

Clustering of Services

It was suggested earlier that while municipal services may cluster along lines of government departments for service providers, among consumers these municipal services will cluster into groups that

Table 2.

MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

	Decrease Services			Keep Services The Same	Increase Services	Don't Know/ No Answer
	Total	A Lot	A Little			
Encourage Business & Industry to Move into City	6.8%	3.2	3.6	16.2	75.3	1.6
Police Patrolling & Other Crime Prevention Work	6.5%	1.6	4.9	39.7	53.4	0.4
Street & Sidewalk Repairs	16.2	2.8	13.4	35.6	47.8	0.4
Police Crime Investigation & Enforcement of Laws	7.7%	2.0	5.7	44.9	45.7	1.6
Special Education for Children with Learning Problems	13.3%	3.2	10.1	49.4	36.8	0.4
Snow Removal	10.1%	2.0	8.1	55.1	34.0	0.8
Emergency Medical Service	4.4%	1.2	3.2	60.7	32.8	2.0
Fire Fighting Services	3.6%	1.2	2.4	66.0	30.0	0.4
Building Inspection for Fire Code Compliance	14.5%	3.2	11.3	56.7	28.3	0.4
Vocational Training	18.7%	4.5	14.2	52.6	26.7	2.0
Public Parks	23.5%	5.3	18.2	49.0	26.3	1.2
Pollution Control	34.4%	11.3	23.1	38.9	26.3	0.4
Summer & After School Programs for Children	31.6%	12.6	19.0	41.7	25.5	1.2
Employment Service	24.3%	7.7	16.6	50.6	25.1	-
Consumer Protection	30.0%	13.4	16.6	44.5	24.7	0.8
City Health Clinics	23.4%	4.0	19.4	53.4	20.2	2.8
Maintenance & Repair of Water & Sewer Facilities	7.7%	1.2	6.5	71.7	19.4	1.2
Elementary & High School Education	26.3%	4.0	22.3	53.4	19.0	1.2
Innoculations & Other Disease Prevention Programs	16.6%	6.9	9.7	64.8	17.8	0.8

Table 2.

MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

(continued)

	Decrease Services			Keep Services The Same	Increase Services	Don't Know/ No Answer
	Total	A Lot	A Little			
Emergency Housing	34.8%	10.9	23.9	46.6	17.4	1.2
Construction of New Roads, Bridges & Highways	46.6%	22.7	23.9	36.8	15.8	0.8
Support of Bus Service	35.2%	16.6	18.6	49.4	14.6	0.8
Free Legal Aid	52.6%	25.9	26.7	31.6	13.0	2.8
Adult Education	36.1%	13.8	22.3	51.4	10.9	1.6
Regular Garbage Pick-up	10.1%	1.2	8.9	77.3	10.5	2.0
Public Library	27.2%	4.5	22.7	62.3	9.3	1.2
Food Stamps or other Food Programs	64.8%	40.1	24.7	25.9	8.5	0.8
Running the City Government	70.0%	35.6	34.4	22.3	6.5	1.2
Welfare & Other Money Programs	70.9%	48.6	22.3	23.5	5.0	-

are characterized by the perceived similarities of the problems they are attempting to solve or the goals toward which they are directed. It was hypothesized that purchase choices for these 29 specific services would cluster into six groups that could generally be described as basic individual maintenance services; social control and protection services; education, social and individual development services; community development services; and individual rights and civil liberties services. This hypothesized clustering pattern was based on Maslow's theory of the hierarchy of needs.

In order to test this, individual choices for levels of delivery of each of the 29 services were factor analized.[1] Factor analysis is a procedure whereby a correlation table is transformed into an alternate state of relationships using fewer variables and losing little or none of the information. Such a procedure shows which groups of municipal services, defined by the choices made about the level at which they should be provided, tend to group together conceptually and which stand alone as being conceptually unrelated to the others. This provides an indication of how individuals group these services.

The municipal services did fall into clusters. However, as can be seen from Chart 4, the hypothesized clustering, based on Maslow's hierarchy of needs, did not occur. Instead, a much simpler six factor pattern emerged.

Four of these factors deal with traditional city services: police protection (police patrolling and other crime prevention work and

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[1]A principal factors analysis with quartimax rotation was used. All missing data was given the mean value for that item.

Chart 4.

HYPOTHESIZED AND OBSERVED CHOICE CLUSTERS

HYPOTHESIZED CLUSTERS	OBSERVED CLUSTERS						
	General Welfare	Federal Welfare	Police	Fire	Education	Capital Maintenance	Did Not Cluster
Basic Individ. Maintenance							
Emergency housing	Emergency housing						
Food Stamps or Other Food Programs		Food Stamps					
City Health Clinics	Health Clinics						
Emergency Medical Service	Emerg. Med Serv.						
Innoculations and Other Disease Prevention Programs	Innocula-tions	Welfare					
Employment Services	Employment Serv.						
Social Control & Protection							
Regular Garbage Pick-up							Garbage Pick-Up
Pollution Control	Pollution Control						
Police Patrolling & Other Crime Prevention Work			Police Patrol				
Police Crime Investigation and Enforcement of Laws			Crime Invest.				
Fire Fighting Services				Fire Fighting			
Building Inspection for Fire Code Compliance							Building Inspec.

Chart 4.

HYPOTHESIZED AND OBSERVED CHOICE CLUSTERS

(continued)

HYPOTHESIZED CLUSTERS	OBSERVED CLUSTERS						
	General Welfare	Federal Welfare	Police	Fire	Education	Capital Maintenance	Did Not Cluster
Education, Social & Individual Development							
Special Educ. for Children with Learning Problems	Special Educ.						
Vocational Training							Vocational Training
Adult Education	Adult Educ.						
Elem. & H.S. Education					Elem. & H.S. Ed.		
Cultural & Recreational Services							
Public Library					Public Lib.		
Summer & After School Programs for Children	Summer & After School Programs						
Public Parks							Public Parks
Community Development							
Maintenance & Repair of Water & Sewer Facilities						Water & Sewer	
Street & Sidewalk Repairs						St. Repairs	
Snow Removal						Snow Removal	
Support of Bus Service	Bus Service						

Chart 4.

HYPOTHESIZED AND OBSERVED CHOICE CLUSTERS

(continued)

HYPOTHESIZED CLUSTERS	OBSERVED CLUSTERS						
	General Welfare	Federal Welfare	Police	Fire	Education	Capital Maintenance	Did Not Cluster
Community Development (cont'd)							
Construction of New Roads, Bridges & Highways							New Roads
Running City Government							Running Gov't
Encourage Business & Industry to Move into City							New Business
Individual Rights & Civil Liberties							
Free Legal Aid	Free Legal Aid						
Consumer Protection	Consumer Protec-tion						

police crime investigation and enforcement of the laws), fire protection, education (elementary and high school education and public libraries), and the maintenance of arterial and utility capital (snow removal, street and sidewalk repairs, and maintenance and repair of water and sewer facilities).

The fifth factor clustered federal welfare programs (welfare and other money programs and food stamps and other food programs) which were included in this study because, although they are federal programs, formulas for financing and operating them differ among municipalities. These are services available only to individuals who meet strict financial qualifications.

The sixth factor was a general welfare factor which, although it drew items from each hypothesized cluster, centered around and included almost all items it was anticipated would fall into the hypothesized basic individual maintenance and individual rights and civil liberties clusters. For the most part these services (emergency housing, health clinics, emergency medical services, innoculations and other disease prevention programs, employment services, pollution control, special education, adult education, summer and after school programs for children, bus service, free legal aid and consumer protection) are designed to help the individual personally and are not necessarily restricted to use by any specific categories of individuals.

Seven service items (garbage pick-up, building inspection, vocational training, public parks, construction of new roads, bridges and highways, running city government and encouraging new business and industry to move into the city) failed to cluster into any factor,

suggesting that in terms of the amount of service delivery desired relative to the price willing to be paid, these items have conceptually distinct significance for the residents of Worcester.

Chart 4 shows both the hypothesized and observed clustering of municipal service delivery level choices. (For a more detailed description of factor loadings, see Appendix G.)

The remainder of this analysis will deal with the choices different individuals made for the observed rather than the hypothesized cluster of services.[1]

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[1]To do this, service cluster choice scores were constructed by adding the choice scores for each item in the cluster. A description of these scores can be found in Appendix G.

Chapter V.

THE IMPORTANCE OF POSITION IN THE SOCIAL STRUCTURE FOR EXPLAINING MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

In order to test the working hypotheses concerning predictions of choice behavior among individuals located in different positions in the social structure, as measured by their age, income, educational attainment and home ownership, choice scores for each observed cluster of services were first correlated with these demographic groups. The purpose of this procedure is to test whether observed relationships are in the direction predicted and to test the extent to which these relationships are significant. Later, these four demographic variables were regressed against each observed service choice cluster in order to explore the relative importance of these variables in influencing municipal service delivery level choices.

Age

It had been predicted that older people would choose to purchase lower levels of municipal services in all areas except social control and protection (observed police and fire factors) and health, where they would choose levels of service delivery comparable to that of younger people. This working hypothesis was based on the habituation of older people to lower levels of service delivery and taxes than younger people.

For the most part, however, no differences were observed in choice behavior among people of different ages. As Table 3 shows, in

Table 3.

RELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS AND MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

Correlations

Municipal Services	Demographic Characteristics			
	Age	Education	Income	Home Owner
General Welfare	.0404	-.2201*	-.3171*	-.2673*
Legal Aid	.0401	-.1922*	-.3008*	-.3004*
Consumer Protection	.0125	-.1616*	-.2314*	-.1420*
City Health Clinics	-.0607	-.0085	-.1805*	-.2914*
Emergency Housing	.0990	-.1656*	-.2658*	-.1966*
Pollution Control	-.0594	.0032	-.1170*	-.1557*
Employment Service	.1300*	-.1914*	-.1704*	-.1146*
Summer and After School Programs	-.0900	-.1068*	-.2113*	-.2206*
Innoculations	.0612	-.1693*	-.1637*	-.1179
Special Education	-.0070	-.0235*	-.1340*	-.1448*
Adult Education	.0376	-.1811*	-.1883*	-.1023
Support of Bus Service	.1264*	-.0823	-.2587*	-.0786*
Emergency Medical Service	.0159	-.0678	-.0526	-.0840
Federal Welfare	.0582	-.1707*	-.3455*	-.2552*
Food Stamps	.0354	-.1639*	-.3300*	-.2418*
Welfare	.0725	-.1501*	-.3055*	-.2275*
Capital Maintenance	.0573	-.2223*	-.2067*	-.0951
Street and Sidewalk Repair	.0403	-.2109*	-.1486*	-.0590
Water and Sewer Facilities	.1179*	-.1233*	-.1711*	+.0186
Snow Removal	-.0077	-.1757*	-.1742*	-.1700*
Police	.0152	-.1314*	.0212	+.0410
Police Crime Investigation	.1675*	-.1645*	-.0302	+.0231
Police Crime Prevention	.0637	-.0160	.0699	+.0518

Table 3.

RELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS AND MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

(continued)

	Correlations			
	Demographic Characteristics			
Municipal Services (continued)	Age	Education	Income	Home Owner
Fire	.0152	-.1314*	-.0210	-.0789
Education	-.2443*	.1028	-.0829	-.1068*
Elementary and High School Education	-.3244*	.0454	-.0962	-.1891*
Public Library	-.0604	.1276*	-.0361	+.0264
Public Parks	-.0806	-.0094	-.0441	-.0755
Building Inspection	-.1163*	-.0811	-.0737	-.0894
Running City Government	.0866	-.1138*	-.1618*	-.0939
Vocational Training	.0650	-.0803	-.0396	+.0057
Garbage Pick-Up	.1865*	-.1377*	-.0783	+.0876
New Roads, Bridges, Highways	.1315*	-.0527	.0094	+.0673
Encourage New Business	.1752*	-.0216	.0633	+.1574*

* Denotes significance at .05 level.

the areas of general welfare, federal welfare, fire protection and maintenance of arterial and utility capital, there is no significant relationship between age and choice behavior.

In only two service areas are there differences. A positive correlation exists between age and choice for levels of police protection, indicating increases in age are associated with choices for higher levels of expenditure in this area. This may be related to greater fears of dependency and vulnerability on the part of older people.

Age and choice for levels of education services are negatively correlated, indicating that increasing age is associated with choices for lower levels of spending on education. While this finding may be due to the habituation of older people to lower levels of educational services, it may have other explanations as well. Younger people are more likely to be direct beneficiaries of schools than older people, because they are more likely to have family members currently in school. In addition, younger people tend to have more education than older people, and as will be shown in the next section, the more education one has, the more education services one is likely to choose to purchase.

These data, then, do not support the hypotheses that older people generally choose to purchase fewer services than younger people. With two exceptions--police protection and education--there are no differences in choice behavior among people of different ages. Mueller's findings that, while differences are small, the general trend was for older people to want a more limited amount of services

from the federal government than younger people, is not support by these data for local government services.

Education

It was hypothesized that people with less education would choose higher levels of municipal service delivery than people with more education. The only exceptions were the areas of education and individual rights and civil liberties, where it was hypothesized that individuals with greater educational attainment would choose to purchase a higher level of services. This working hypothesis was based on the increased scope and consistency of perceptions of needs, problems and range of possible solutions associated with increasing educational attainment.

As Table 3 shows, the data generally support this working hypothesis, indicating that service delivery choice is negatively correlated with education for every service measured except education. This means that increased educational attainment operates to decrease choices for spending in the areas of general welfare, federal welfare, fire protection and maintenance of arterial and utility capital. This relationship runs in the same direction for police protection, although it is not significant at the .05 level. These findings support findings from the Urban Observatory study and Meuller's study which found that people with more education were less likely to want increases in service delivery than people with less education.

The one exception to this trend is the positive relationship found between educational attainment and purchase choice for educational

services. Although this relationship is not significant at the .05 level, its direction indicates that people with more education are more willing to choose higher levels of spending for education than are less educated people. This may be because the more education one has, the more one tends to value education.

Income

It had been predicted that the relationship between income and service choice would be curvilinear, with the lower and higher income residents being more likely to choose to increase spending in all areas than middle-income residents. The exceptions were anticipated to be in the areas of community development where the relationship was hypothesized to be linear, with middle- and upper-income people choosing to spend more than lower income people, and the area of community protection, where it was anticipated that there would be no differences in choice behavior among different income groups. This working hypothesis was based on the anticipated differential perceptions of service costs relative to benefits among individuals in different income groups.

The data in Table 3 indicate that rather than being curvilinear, the relationship between income and choice behavior is linear. There is a significant negative relationship between income and spending choices for services in the areas of general welfare, federal welfare, and the maintenance of arterial and utility capital. This means that higher income is associated with choices for lower levels of service provision in these areas. Choices for spending on education were in

this same direction, though the correlation was not significant at the .05 level.

There was no relationship between income and the choices made for spending on police protection and fire protection.

These findings in general support the hypothesis, with two exceptions. It was hypothesized that there would be a positive relationship between income and community development. Instead this relationship is negative, if maintenance of arterial and utility capital is used as an indication of community development.

The other exception is that the curvilinear relationship between income and spending choice, as documented by Banfield and Wilson, did not emerge here. There may be a number of explanations for the finding of a linear rather than a curvilinear relationship. The first, of course, is that for most services the relationship between income and choice is actually linear, not curvilinear.

Another possibility, however, is that there are several types of high income households, ranging from those where the high income is achieved by having only one person in the labor force to those where this income level is dependent on having several people in the labor force. In the latter case, individual household members may make choices for municipal services that are more similar to those of other individuals earning the same amount of income than they are to choices of individuals living in households where the household earns the same amount of income. Unfortunately the available data do not allow the testing of this explanation.

Home Ownership

It was hypothesized that renters would choose to purchase more municipal services than owners in all areas except social control and protection services (observed police and fire factors) where there would be no differences. This working hypothesis was based on anticipated differences in perceptions of costs relative to benefits among owners and renters.

As Table 3 shows, this working hypothesis was fully supported by the data. There is a positive relationship relationship between tenancy and choice, indicating that renters are more interested in increasing expenditures or less interested in decreasing expenditures for services in the areas of general welfare, federal welfare, and education. The relationship between tenancy and service level choice for maintenance of arterial and utility capital was in the same direction, though not significant at the .05 level.

There was no significant relationship between tenancy and police protection or fire protection, indicating that, as hypothesized, there are no differences between renters and owners in their choices for service delivery levels in this area of social control and protection.

Relative Importance of Demographic Variables

Knowing the relationship between individual demographic characteristics and choice behavior is of limited predictive value since any individual may be characterized by a combination of demographic characteristics which influence him in contradictory ways. For this

reason, it is necessary to explore the relative importance of these demographic characteristics in explaining the variations in choice behavior. To do this, each of these demographic variables was regressed against the observed service delivery level clusters. As Table 4 shows, the demographic characteristics investigated differ in their ability to explain the variations in choice behavior for different service clusters, indicating that some measures of position in the social structure are relatively more important than others in influencing choices for delivery levels of different services.

For general welfare and federal welfare services, home ownership and income level are significantly related to choices, indicating that they are relatively more important than age and educational attainment in influencing this behavior. Owning a home and higher income depress desire for expanded services in these areas. This suggests that this choice behavior is influenced by the perceptions of increased monetary costs relative to benefits from these services.

It was suggested earlier that home owners would be more aware of the actual costs of services than would renters because they are presented with a direct tax bill rather than paying taxes indirectly through their rent. In addition, individuals with higher incomes probably pay larger local tax bills because of the tendency to increased investment in property as income rises.

In terms of perceived benefits, explanations for choice behavior are less clear. Certainly, because of mandated usage restrictions, the likelihood of using many of these general and federal welfare services will decrease as incomes rise. However, reasons for

Table 4.

INFLUENCE OF DEMOGRAPHIC VARIABLES ON MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

	Intercept	Rent	Age	Income	Education	R^2
General Welfare	38,942	- .213* (-2.740)	.062 (.239)	- .207* (-.424)	- .091 (-.375)	.145
Federal Welfare	5,036	- .202* (-.747)	.097 (.107)	- .271* (-.159)	- .006 (-.699)	.152
Capital Maintenance	10,715	- .039 (-.126)	.007 (.006)	- .127 (-.066)	- .164* (-.171)	.067
Police	6,686	- .006 (-.015)	.107 (.080)	.073 (.029)	- .096 (-.077)	.025
Fire	3,430	- .083 (-.095)	.003 (.001)	.066 (.012)	- .148* (-.054)	.025
Education	6,254	.004 (.010)	-.232* (-.164)	- .143* (-.054)	.088 (.067)	.077

Note: Unstandardized regression coefficients in parentheses

* Denotes significance at .05 level.

the relationship between home ownership and choice behavior for services in these two areas in terms of benefits perceived is unclear at this time.

For capital maintenance, police protection and fire protection services, the demographic variable most closely associated with choice behavior is educational attainment, indicating that one's educational attainment is relatively more important in influencing choice behavior in these areas than are other measures of position in the social structure. This suggests that choice behavior in these areas is influenced by the range of problems and solutions an individual perceives.

Increases in educational attainment are significantly related to decreases in levels of services chosen in each of these areas. If with increasing education an individual's definitions of municipal problems change or his perceptions of possible solutions to these problems widens so that he is less dependent on traditional solutions, then this suggests that with increases in education an individual will either be less concerned with police and fire protection and capital maintenance or that he will be at least equally as concerned but will not feel that increasing municipal services and expenditures in these areas is the best solution to the problem.

An alternative explanation is that the less education an individual has, the more likely he is, because of increased age or decreased earning ability, to find himself living in neighborhoods where the provision of these services is inadequate. However, this is a less likely explanation, since income and age have little independent

influence on choice behavior in either of these three service areas.

For educational services, the demographic variable most important in explaining choice behavior is age, indicating that one's age is relatively more important in influencing these choices than are other measures of position in the social structure. Increases in age are significantly associated with choosing to have lower levels of educational services.

As was reported earlier, this finding may be explained by the fact that younger people are more likely to have family members currently in school than are older people, and are therefore more likely to receive direct benefits from the educational system. In addition, because older residents received their educations during a period when schools offered more limited courses of study, they may feel that too much money is currently being spent on unnecessary components of education.

Despite the significance of these relationships between municipal service delivery level choices and measures of position in the social structure, it appears that demographic variables are not too important overall in explaining service delivery level choices. As can be seen in Table 4, in only two cases--that of federal welfare services and general welfare services--did demographic characteristics explain more than ten percent of the variation in choice behavior.

Chapter VI.

THE IMPORTANCE OF SERVICE USAGE PATTERNS AND PERCEIVED EFFICIENCY OF SERVICE DELIVERY IN EXPLAINING MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

Earlier it was hypothesized that in addition to demographic characteristics, the level of municipal services an individual would choose to purchase would be influenced by the extent to which he had previously used these services and his perceptions of the efficiency with which the local government provides these services. In order to test the importance of each of these variables in predicting choice behavior, each service cluster was regressed with each of these variables individually.

Usage of Municipal Services

In the case of general welfare items, federal welfare items, and education items respondents were asked to indicate if they or any members of their family had ever used these services. Consequently, any discussion of the relationship between usage of services and service delivery level choices will be restricted to these three service areas.

It was hypothesized that service usage would be related to choices for higher levels of service delivery. This working hypothesis is based on the assumption that individuals who have had occasion to use certain municipal services are more likely to value the availability of these services and are consequently more likely to choose to have

higher levels of service delivery in these areas than individuals who have not used these services.

The data in Table 5 show that the hypothesized relationship holds only in the case of federal welfare services. Those who are currently or who have ever been users of food stamps or welfare are more likely than those who have not been users of these services to choose to increase service delivery levels in this area.

The relationship between benefit and service level choice for federal welfare services may be related to the income restrictions placed on use of these services. Their use is restricted to a group of lower income individuals who may have few alternatives for solving their problems.

In contrast the lack of a relationship between usage and service level choice for general welfare and education services may be related to two situations. One is that usage of these services is less restricted, and individuals who have not used these services in the past may anticipate using them at some time in the future and may therefore choose to have them continued. This study provides no data, however, to test any explanations of findings based on anticipated usage.

An alternative explanation is that while individuals do not benefit directly from these services, they may perceive themselves to benefit indirectly by having them available for use by other community residents.

Thus, the results of this research indicate that whether or not an individual or any members of his family have ever used a specific

Table 5.

REGRESSIONS: SERVICE CLUSTERS WITH PAST USAGE

	Intercept	Past Usage	R^2
General Welfare	40.1636	- .112	.013
		(-.324)	
Federal Welfare	7.2786	- .310*	.096
		(-.905)	
Education	5.5814	.019	.000
		(.033)	

* Significant at the .05 level.
Note: Unstandardized regression co-efficients in parentheses.
Note: Negative relationship indicates that past usage is associated with choices to increase service delivery levels.

municipal service is significant in influencing delivery level choices for that service only in the case of federal welfare services. However, even in this case, as Table 5 indicates, only ten percent of the variance in delivery level choice behavior is explained by previous usage.

Perceived Efficiency of Current Municipal Services

For each service explored respondents were asked to indicate how good a job they thought the service did in meeting the needs of city residents, considering the amount of money that was spent.

It was hypothesized that those who see municipal service provision as inefficient will choose to have a higher level of municipal service delivery than those who do not see it as inefficient. This working hypothesis is based on the difficulty individuals have relating costs to purchases and their inability to control purchases in the areas of public goods. It was suggested that because in a public goods situation dollar costs are seldom available to the consumer, opportunities for switching "brands" or "products" are seldom available, and purchases and purchase decisions are made jointly rather than individually, the costs of providing services may not be apparent to the individual. These conditions should result in a focus on the benefits of services rather than costs, leading to a situation in which the individual chooses to increase or decrease service delivery levels based not on the benefits relative to costs but merely on the level of benefits.

As Table 6 indicates, this relationship between perceived inefficiency and choices for increased levels of municipal service delivery was found, and was found to be significant, in the case of capital maintenance and police protection services. In the case of fire protection the relationship was in the direction predicted, but was not significant at the .05 level. Among individual service items that failed to fall into any cluster, this relationship held for building inspection, garbage pick-up, construction of new roads, bridges and highways, and the encouragement of new business to come into the city. (See Appendix G.) This indicates that for these specific services areas, the more an individual perceives the city to be providing services inefficiently, the more likely he is to choose higher levels of service output.

In contrast, in the case of the federal welfare and education service clusters, and the individual item running the city government, the relationshp ran in the opposite direction. The more efficient one perceives the provision of these services to be, the more likely one is to choose to increase the level of services provided. Why these services should operate in a different manner than other services is unclear. However, in contrast to the services for which inefficiency is associated with choices for higher delivery levels, these services can all be characterized by their lack of a visible product. If, as has been suggested, individuals base their choices on perceived benefits, they would be expected to behave differently in those situations where the benefits were obscured.

Table 6.

REGRESSIONS: SERVICE CLUSTERS WITH PERCEIVED EFFICIENCY

	Intercept	Perceived Efficiency	R^2
General Welfare	34.0667	- .003	.000
		(-.003)	
Federal Welfare	5.8017	- .323*	.104
		(-.361)	
Capital Maintenance	6.6742	.437*	.191
		(.376)	
Police	6.3202	.137*	.019
		(.109)	
Fire	3.1045	.119	.014
		(.104)	
Education	6.2440	- .138*	.019
		(-.149)	

* Significant at the .05 level.
Note: Unstandardized regression coefficients in parentheses.

In the case of the general welfare cluster, there is no relationship between perceived inefficiency and service choice behavior.

These findings indicate that for most services, there is a relationship between perceived efficiency and choice behavior, but that this relationship runs in different directions for different services. However, despite the significance of the relationship, perceived efficiency seldom explains as much as ten percent of the variance in municipal service delivery level choice behavior. As shown in Table 6, the two exceptions are capital maintenance and federal welfare services where 19.1% and 10.4% of the variance respectively is explained by this variable.

Chapter VII.

THE IMPORTANCE OF ATTITUDES TOWARD THE LOCAL GOVERNMENT IN EXPLAINING MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

Earlier it was hypothesized that in addition to demographic characteristics, service usage and perceived service delivery efficiency, the level of municipal services an individual would choose to purchase would be influenced by his trust in local government and assessment of its performance, his perception of the equity of the tax system, and his attitude toward the role he thinks the local government should play in solving problems. In order to test the working hypotheses exploring the importance of general attitudes toward the local government in predicting choice behavior, each service cluster was first correlated with clusters of items measuring these general attitudes. The purpose of this procedure is to test whether observed relationships are in the direction predicted and to test the extent to which these relationships are significant. Later these clusters of attitudes were regressed against each observed service choice cluster in order to explore the relative importance of these variables in influencing municipal service delivery level choices.

Attitude Clusters

Respondents were asked to express their opinions on a series of attitude statements. The use of factor analytic techniques reduced these items to eight clusters, delineated in Chart 5. These clusters deal with: the use the city government makes of tax revenues (SERVAL),

Chart 5.

ATTITUDINAL CLUSTERS

Value of Services for Money Paid (SERVAL)

The services I get are a good value for the taxes I pay.
In general, this city makes good use of the tax money it raises.
The city government usually gets at serious problems right away.

How Hard City Employees Work (MUNEMP)

One reason taxes are so high is that there are too many city employees.
City employees don't work as hard as people who work for private companies.
City employees are overpaid.

Honesty of Politicians (DISHON)

There are too many crooked politicians running this city.
Too many of the city employees are getting graft.

Fairness of Tax Shares Paid by Renters and Owners (CONTRI)

People who rent pay as much tax indirectly as owners pay directly.
People who rent don't contribute as much to paying property taxes as homeowners.

Amount of Services Citizens Should Pay for (TAXPAY)

People should not have to pay taxes for city services they don't use.
Everyone in the city should pay taxes even if they don't use the services provided.

Tax Base (TXFORM)

The property tax is the best way for cities to raise money.

Amount of Services City Government Should Provide (SSPROV)

The city government should be providing even more welfare and social services than it does now.

Amount Local Government Does For People (TOMUCH)

The local government is doing too much for people.

the honesty of local politicians (DISHON), the diligence of city employees (MUNEMP), the usefulness of property taxes as a basis for municipal revenues (TXFORM), the fairness of tax shares paid by renters relative to owners (CONTRI), the amount of services citizens should pay for (TAXPAY), the amount of services the city government should provide (SSPROV), and the amount the local government should do for people (TOMUCH). (For a fuller description of these factors, see Appendix G.)

It was hypothesized that an individual's choice for municipal service delivery levels would be related to his trust in local government, his perception of the equity of the tax structure, and his perception of the role he felt local government should play in solving problems.

One of these working hypotheses suggested that those who trust the government and assess its general performance positively would choose higher levels of municipal service delivery than would those who distrust the local government. This working hypothesis is supported by previous research indicating that those individuals who evaluate the government positively are more likely to choose to have the government involved in solving certain specific problems than are those with less positive views of the local government.

This study attempted to measure three dimensions of trust in the local government and assessment of its performance using the attitudinal clusters dealing with the use the municipal government makes of tax revenues (SERVAL), the honesty of local politicians (DISHON), and the diligence of city employees (MUNEMP).

As the data in Table 7 show, assessment of local government performance, as measured here, is not related to municipal service delivery level choices for all service areas. In fact, it has no significant relationship to choices for police and capital maintenance services, and its relationship to the other service clusters explored varies in a manner similar to that of perceived efficiency of service delivery.

Feelings that city employees are diligent is associated with choices for increases in general welfare, federal welfare and education services. This suggests that in these labor intensive service areas where there is little visible product, citizens are sensitive to the manner in which this labor is managed. Because this finding parallels earlier findings regarding the efficiency of service delivery, where it was found that in the cases of federal welfare and education services perceived efficiency was associated with higher delivery levels, it also suggests that one salient dimension of service delivery efficiency perception for specific services where there is no visible product may be the generalized notion of the productivity of city employees.

In contrast, belief that city employees are dishonest is significantly associated with choices for higher levels of fire services. The relationship between this attitudinal dimension and capital maintenance services is in the same direction, although it is not significant. These are two of the three service areas for which perceptions of inefficiency in delivery were associated with choices for higher levels of service delivery. This suggests that one reason for this choice behavior may be the perception that corruption is at least part

Table 7.

RELATIONSHIP BETWEEN ATTITUDINAL CLUSTERS AND MUNICIPAL SERVICE CLUSTERS

	SSPROV[A]	TOMUCH[B]	SERVAL[C]	DISHON[D]	MUNEMP[E]	TXFORM[F]	CONTRI[G]	TAXPAY[H]
General Welfare	-.3936*	.2486*	-.1000	-.0569	.1484*	-.1476*	.0026	-.1881*
Federal Welfare	-.7099*	.2209*	-.1882*	.0284	.2445*	-.1315*	.1758*	.0339
Capital Maintenance	-.1371*	.0618	.0664	.0957	.0743	-.1598*	-.0141	-.0734
Police	-.0093	.1356*	.0369	.0568	.0233	.0118	.0067	-.1017
Fire	-.0868	.1635*	.0957	-.1316*	.0418	-.0068	-.0744	-.2907*
Education	-.2120*	.1214*	.0007	.0287	.1447*	-.0897	.0764	.0533

Note: Positive correlations indicate that choices to increase municipal service delivery levels are related to belief that:

A. the city government should not be providing more social services than it does now
B. the local government does not do too much for people
C. the city makes poor use of its tax money
D. city employees are honest
E. city employees are diligent
F. the property tax is not the best way for the city to raise money
G. renters pay as much in taxes as owners
H. citizens should pay only for the services they use

of the cause for the inefficiency. It is unclear, however, if this behavior is based on citizen rationalization that more services could be provided for the same amount of money if only city employees were more honest, as speculated by the Urban Observatory study, or if citizens accept graft and corruption as a normal cost of operation of some services and choose to increase service delivery levels in these areas despite this corruption.

That these two generalized dimensions of trust in local government and assessment of its performance operate in a manner so similar to that of service delivery efficiency suggests that they may explain in part why the observed relationship between choice and efficiency exists.

A second working hypothesis relating attitudes to choice behavior dealt with perceptions of the equity of the tax system. It was hypothesized that those who think the tax structure is inequitable would choose lower levels of municipal service delivery than those who think the tax structure is equitable. This working hypothesis is based on the assumption that individuals perceiving the tax system to be inequitable are probably likely to feel that they are paying a disproportionate share of the costs of running local government and are therefore reluctant to increase these costs.

Perceived fairness of the tax structure was measured by three clusters of attitude items: fairness of the tax shares paid by owners relative to renters (CONTRI), acceptance of the property tax as the best way for cities to raise money (TXFORM), and perception of who should pay for services (TAXPAY).

As the data in Table 7 show, this working hypothesis was not fully supported.

The fairness of tax shares paid by owners relative to renters was significantly related only to choices for federal welfare services. Belief that renters pay as much in taxes as owners is associated with choices for higher levels of federal welfare services. As data in Appendix G show, this attitudinal dimension is correlated with the tenancy variable discussed earlier, indicating that renters are more likely than owners to feel there is no difference in the relative share of taxes paid by each. This suggests that while owners and renters make significantly different choices in several specific service areas, it is only in the case of federal welfare services that these differences in choice behavior appear to be related to differences in their perceptions of the fairness of cost distribution between them.

Acceptance of property tax as the best method of raising municipal revenue is significantly related to choices for higher levels of services in the areas of federal welfare, general welfare and capital maintenance. While this parallels the relationship between home ownership and choice behavior found earlier, this attitudinal item is poorly correlated with homeownership. This suggests that general notions regarding the goodness of property taxes as a method of raising municipal revenue cut across owners and renters as an independent influence on spending for specific service areas. Why it should be related to these specific service areas in this manner, however, is unclear.

Belief that one should pay only for the services he uses is related to choices for general welfare and fire services. In both cases choices for higher levels of service delivery is significantly related to belief that citizens should pay for services even if they don't use them. This raises the possibility, as an earlier discussion of the relationship between choice behavior and service usage suggested, that in some cases choices for increases in service delivery may operate as a form of insurance. Individuals who have not used these services in the past may anticipate using them at some time in the future and may choose to continue or increase their delivery level. An alternative explanation would be that those citizens who use these services are least able to afford them and realize that continued availability of these services is dependent on support from non-users.

These findings suggest that generalized attitudes toward taxes and taxation policy are complex and not easily related to specific choice behavior. This further supports earlier suggestions that because of payment methods individuals are probably unaware of the actual costs of specific services and unable to relate these costs to their tax payments. In the case of renters, this confusion may be further compounded by lack of awareness of the extent to which they even pay taxes through their rent.

It was hypothesized that people who felt the government had a role to play in meeting individual and community needs would choose higher levels of municipal services than people who felt these needs should be met by the individual. This working hypothesis is fully supported by the data, as shown in Table 7.

The role the local government should take in meeting needs and solving problems is measured by two attitude statements, one relating to the amount of welfare or other social services the local government should provide (SSPROV) and another relating to whether or not the local government is doing too much for people (TOMUCH).

Feelings that the government is not doing too much for people is significantly related to choices for increasing education, capital maintenance, general welfare and federal welfare services. This latter relationship, however, should be viewed with caution since the word "welfare" is used in both the attitude statement and one of the items in the federal welfare service cluster.

Feelings that the government is not doing too much for people is significantly related to choices to increase services in the areas of police protection, fire protection, education, and general and federal welfare.

While the findings regarding the relationship between perceptions of the role local government should play in providing services and choice behavior may seem obvious, their significance lies in their relative importance in explaining choice behavior. This will be explored later in this chapter and in the next chapter.

Relative Importance of Attitudinal Dimensions

As in the case of variables measuring position in the social structure, individuals may find themselves holding attitudes which are in conflict with one another regarding municipal service delivery level choices. For this reason it is important to explore the relative

importance of these attitudes in influencing choice behavior. To do this each of these attitudinal clusters was regressed against the observed service delivery level clusters.

As Table 8 shows, the attitudinal dimensions differ in their ability to explain the variations in choice behavior for different service clusters, indicating that some attitudinal dimensions are relatively more salient than others in influencing choices for delivery levels of different municipal services.

Attitudes are most important in explaining service delivery level choices in the areas of general and federal welfare services. In the area of general welfare services, the most important relationship is that found between choice behavior and perception of the role of the local government in solving problems. The more one feels the local government is doing too much for people and the more one feels the local government should not be providing more welfare and social services, the more likely one is to choose lower levels of services in this area.

Independent of this are significant though smaller relationships between choices for general welfare service levels and attitudes regarding the tax system. Perceptions that one should pay for services even if he does not use them and perceptions that the property tax is the best way to raise revenue are associated with choices to increase levels of general welfare services.

When all the attitude dimensions are combined, assessment of local government performance fails to show any significant relationship to general welfare service choice behavior.

Table 8.

REGRESSIONS: SERVICE CLUSTERS WITH ATTITUDINAL CLUSTERS

	Intercept	SERVAL	DISHON	MUNEMP	TXFORM	CONTRI	TAXPAY	TOMUCH	SSPROV	R^2
General Welfare	47.2382	-.0690	-.0545	.0983	-.1232*	-.1106	-.1476*	.1886*	-.3259*	.2454
		(-.2028)	(-.1929)	(.2747)	(-.8421)	(-.3719)	(-.5071)	(1.2260)	(-2.4615)	
Federal Welfare	7.6814	-.0327	-.0356	.1144*	-.0503	.0022	.0818	.1143*	-.6540*	.5360
		(-.0276)	(-.0362)	(.0916)	(-.0986)	(.0214)	(.0805)	(.2131)	(-1.4165)	
Capital Maintenance	10.6704	.1314	-.0774	.1252	-.1936*	-.0451	-.0402	.0121	-.1207	.0773
		(.0978)	(-.0692)	(.0886)	(-.3348)	(-.0384)	(-.0349)	(.0220)	(-.2307)	
Police	5.9756	.0505	.1228	.0232	-.0068	.0019	-.1146	.1252	.0166	.0379
		(.0288)	(.0842)	(-.0126)	(-.0090)	(.0012)	(-.0764)	(.1579)	(.0243)	
Fire	3.2429	.0773	-.0544	.1020	-.0308	.0543	-.2051*	.0926	-.0384	.0913
		(.0201)	(-.0170)	(.0252)	(-.0186)	(.0176)	(-.0622)	(.0531)	(-.0256)	
Education	5.1820	.1064	.0146	.1367*	-.0985	.0398	.0716	.0823	-.1751*	.0831
		(.0577)	(.0095)	(.0704)	(-.1241)	(.0246)	(.0453)	(.0986)	(-.2437)	

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

These findings suggest that choices for general welfare service delivery levels are influenced by more general beliefs regarding the responsibility of individuals to help one another and the responsibility of governments to help individuals. Those who feel a sense of responsibility for others and project this sense of responsibility onto the government are more likely to choose to increase services in the area of general welfare.

As in the case of general welfare services, the most important explanations of choices for delivery levels of federal welfare services are perceptions of the role the local government should take in solving problems. Again, belief that the local government is doing too much for people and should not be providing more welfare and social services is associated with choices for lower levels of service delivery in this area.

In addition, federal welfare service delivery level choices are significantly related to perceptions of diligence and efficiency on the part of municipal employees. Greater belief that city employees are productive and efficienct is associated with choices for higher levels of expenditures and services for federal welfare services.

As in the case of general welfare service choices, these findings indicate that choices for federal welfare service delivery levels are influenced by general beliefs regarding the responsibility of government to help individuals. At the same time, however, expectations for the efficiency with which this government support should be provided operate independently to suppress choices for government action.

In the case of federal and general welfare services, attitudes are quite important in explaining variance in choice behavior. 53.6% of the variance in federal welfare service delivery level choice behavior and 24.5% of the variance in general welfare service delivery level choice behavior is explained by responses to these attitude items. For other service clusters, however, the attitudinal dimensions measured here offer little explanation of choice behavior.

Choices for educational service delivery levels, like those for federal welfare service delivery levels, are significantly related to beliefs about the role of government in providing services and perceptions of the diligence of municipal employees. Beliefs that in general social and welfare services should be increased and beliefs that municipal employees are diligent are associated with choices for higher levels of educational services. This suggests that as in the case of federal welfare services, another service area for which there are no visible products, choices for educational service delivery levels are influenced by general beliefs regarding the responsibility of government to help individuals and constrained by perceptions of the efficiency with which this support appears to be given.

Choices for capital maintenance service delivery levels are significantly related only to perceptions of the goodness of the property tax as a basis for municipal revenue. Belief that the property tax is the best way to raise municipal revenue is associated with choices to increase spending on capital maintenance services. Why this relationship is significant is unclear. One explanation for the relationship, however, may be that because increases in these services

would tend to increase the value of property, citizens feel they should be financed by property taxes. Another explanation for the relationship may be the fact that both are traditional: one is a collection of traditional services while the other is a traditional method of raising municipal money. Individuals who stress solving these more traditional urban problems may see fewer alternatives for financing solutions and consequently stress more traditional methods of raising revenues.

In the case of fire protection services, the only significant relationship is that between choice behavior and perceptions of what services one should pay for. Belief that one should pay for all services whether or not he uses them is associated with choices for higher levels of fire service delivery. This suggests that payment for services in this area may operate as an insurance policy against possible disaster.

In the case of police protection services, there are no significant relationships between attitudes measured here and choice behavior.

Taken together these findings suggest that the various attitudinal dimensions measured operate differently in influencing choices for delivery levels of services in different areas. However, in the case of only two service areas, federal and general welfare services, do generalized attitudes significantly influence this choice behavior.

Chapter VIII.

RELATIVE IMPORTANCE OF EACH EXPLORED VARIABLE IN EXPLAINING MUNICIPAL SERVICE DELIVERY LEVEL CHOICES

It is clear that choices for delivery levels of various municipal services are influenced by different variables. The preceding analysis has shown how each of the sets of variables investigated, demographic characteristics, service usage patterns, perceived efficiency of service delivery, and general attitudes toward the local government, is individually related to choice behavior. It is necessary yet to use the hypothesized working model to show the interaction of all these variables and their relative importance in influencing choice behavior.

In order to do this all the variables were regressed against each observed service choice cluster. While the variables are not totally independent of one another, examination of the tables in Appendix G indicates that they do not appear to be highly correlated. In order to take this interdependence into consideration in exploring how these variables relate to one another in influencing choices for municipal service delivery levels, however, step-wise regressions were used. The variables were entered into the regressions in steps in the manner illustrated by the working model in Chart 2: demographic variables were entered on the first step, followed by service usage, perceived service delivery efficiency and finally general attitudes. Variables entered at each step were hypothesized to be influenced to some extent by variables entered in preceding steps, but also to have independent influence on choice behavior.

In addition, a second working model exploring the bases of choice behavior was developed for each observed service choice cluster. For this working model, however, only those variables that were found to be empirically important at some point in the analysis of this choice behavior were used. This more efficient, empirically based working model was also constructed by means of step-wise multiple regression, with demographic variables being entered on the first step, followed by past service usage, perceived efficiency of service delivery and generalized attitudes regarding the role and performance of local government.

Each of these working models is explored below.

Federal Welfare Services

Federal welfare services include food stamps and other food programs and welfare and other money programs. In separate regressions discussed in earlier chapters, it was found that renting rather than owning a home, lower income, past service usage, perceptions that federal welfare services are efficiently provided, perceptions that municipal employees are diligent and belief that the local government should be providing more services in general, and more welfare and social services in particular, were independently associated with choices for higher levels of federal welfare services. This suggested that two possibly conflicting strains of thought operate as bases for individual service delivery level choices in this area: perception of the costs of services relative to the benefits provided and a sense that the local government ought to be providing services for individuals.

Table 9 shows how the working model illustrated in Chart 2 operates for the full range of variables explored. Inspection of the steps indicates that in combination, position in the social structure, usage and perceived delivery efficiency operate in a manner similar to that found earlier when these variables were explored individually. Together they explain 27 percent of the variance in choice behavior and suggest that perceptions of cost, perceptions of benefits and perceptions of benefits relative to costs are important for making choices in this area.

Addition of general attitudinal items, however, affects the influence of these demographic and service specific variables. This is illustrated more clearly in Table 10 where only those variables that were found to be empirically important at some point in the analysis were used to construct a more efficient, empirically based model. Inspection of steps 5, 6 and 7 indicate that knowledge about general attitudes toward the role local government should play in solving problems is crucial to understanding how choices for federal welfare service delivery levels are made. While caution should be used in interpreting step 7 since the word "welfare" appears in both the attitude statement and one of the items in the choice cluster, taken together steps 6 and 7 clearly indicate that those who in general feel the government should be doing more for the individual citizen choose higher levels of welfare service delivery. More important, as step 6 indicates, the addition of these variables draws off the influence of home ownership and brings out the influence of TAXPAY, belief that citizens should pay for services even if they don't use them,

Table 9.

INFLUENCE OF VARIABLES EXPLORED ON FEDERAL WELFARE SERVICE DELIVERY LEVEL CHOICES

	Step Number				
	1	2	3	4	5
INTERCEPT	5.036	7.106	8.779	5.826	7.512
OWNSHP	-.202* (-.747)	-.166* (-.612)	-.133* (-.490)	-.078 (-.288)	-.008 (-.299)
AGE	.097 (.107)	.123 (.136)	.115 (.127)	.128* (.141)	.103* (.114)
INCOME	-.271* (-.159)	-.243* (-.143)	-.207* (-.121)	-.213* (-.125)	-.087 (-.501)
EDUC	-.006 (-.007)	.037 (.043)	.048 (.057)	-.007 (-.008)	-.041 (-.488)
USED		-.232* (-.675)	-.257* (-.748)	-.217* (-.632)	-.042 (-.122)
EFF			-.279* (-.312)	-.199* (-.222)	-.106* (-.118)
SERVAL				-.059 (-.050)	.012 (.980)
DISHON				-.029 (-.029)	-.009 (-.907)
MUNEMP				.188* (.151)	.123* (.984)
TXFORM				-.025 (-.048)	-.017 (-.332)
CONTRI				.063 (.061)	.034 (.332)
TAXPAY				.109 (.107)	.102* (.100)
TOMUCH				.182* (.340)	.219* (.118)
SSPROV					-.584* (-1.265)
R^2	.152	.199	.274	.348	.572

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

Table 10.

INFLUENCE OF SELECTED VARIABLES ON FEDERAL WELFARE SERVICE DELIVERY LEVEL CHOICES

Step-wise Regression

	Step Number						
	1	2	3	4	5	6	7
INTERCEPT	5.012	7.196	8.908	8.439	7.171	5.697	7.763
OWNSHP	-.203*	-.163*	-.129*	-.136*	-.140*	-.113	-.024
	(-.750)	(-.600)	(-.475)	(-.502)	(-.517)	(-.419)	(-.088)
AGE	.099	.111	.099	.096	.111	.140*	.115*
	(.109)	(.122)	(.109)	(.105)	(.123)	(.154)	(.126)
INCOME	-.273*	-.232*	-.192*	-.206*	-.215*	-.219*	-.098*
	(-.160)	(-.136)	(-.112)	(-.121)	(-.126)	(-.128)	(-.058)
USED		-.226*	-.249*	-.257*	-.235*	-.227*	-.055
		(-.659)	(-.726)	(-.750)	(-.685)	(-.662)	(-.160)
EFF			-.278*	-.273*	-.241*	-.216*	-.111*
			(-.310)	(-.305)	(-.269)	(-.241)	(-.124)
TAXPAY				.109	.085	.109*	.091*
				(.107)	(.084)	(.108)	(.090)
MUNEMP					.185*	.189*	.111*
					(.148)	(.151)	(.089)
TOMUCH						.170*	.118*
						(.317)	(.220)
SSPROV							-.583*
							(-1.263)
R^2	.152	.198	.272	.283	.315	.340	.570

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

and age.

This suggests that the earlier rationale basing differences in choice behavior between owners and renters on differential perceptions of the costs of city services may not be a sufficient explanation of these differences. The data indicate that an additional dimension of the differences deals with general attitudes regarding independence and self-sufficiency. Owners are more likely than renters to feel that local government should be less involved in solving problems. What is unclear is whether more independent, self-reliant individuals choose to invest their money in their own property in the form of home ownership or whether home ownership in a property tax system breeds this difference. For whatever reason, however, this dimension of the difference between owners and renters exists and, when accounted for, leaves home ownership as an insignificant predictor of federal welfare choice behavior.

These findings also suggest that age, previously unrelated to federal welfare service choice behavior, is significantly related when other variables are accounted for. This is probably because older individuals have fewer alternatives for income sources than younger individuals and in time of need may have no alternative to federal welfare programs for survival.

This empirically based working model, then, suggests that individual choice behavior for federal welfare service delivery levels is based on several possibly conflicting considerations relating to one's anticipated benefits, one's perception of these benefits relative to the costs of federal welfare services, and one's sense of obligation

to help others. Past usage and anticipated future usage, the age variable, press for choices of higher levels of federal welfare service delivery. Higher income and perceived inefficiency of both employees and use of tax money for welfare services, each of which measures a dimension of the perception of benefits relative to costs, operate to depress choices for federal welfare services. And generalized attitudes indicating a belief that both individual taxpayers and the local government have a role to play in solving problems and meeting needs operate to increase choices for federal welfare service delivery levels.

General Welfare Services

General welfare services include a variety of services designed to help individuals meet specific needs: emergency housing, health clinics, emergency medical services, innoculations and other disease prevention programs, employment services, pollution control, special education, adult education, summer and after school programs for children, bus service, free legal aid and consumer protection services.

In separate regressions discussed in earlier chapters, it was found that owning a home rather than renting, lower income, perceptions that municipal employees are diligent and belief that the local government should be providing more services in general, and more welfare and social services in particular, were independently associated with choices for higher levels of general welfare services. As in the case of federal welfare service delivery level choices, these relationships suggested that two possibly conflicting strains of thought operate as bases for individual choices for general welfare services:

perceptions of the costs of services relative to the benefits provided and beliefs about the responsibility local government has to provide services to individual citizens.

Table 11 shows how the working model illustrated in Chart 2 operates for the full range of variables explored. Inspection of the steps indicates that in combination, position in the social structure, usage and perceived efficiency of delivery operate in a manner similar to that found earlier when these variables were explored individually. Only ownership and income are significant predictors at this point, suggesting that perceptions of service costs are important bases for making decisions regarding general welfare service delivery levels. Although, as Table 12 indicates, when less significant demographic variables are removed from the working model, the importance of past service usage in predicting general welfare service delivery level choices emerges.

As was the case for federal welfare service choices, addition of general attitudinal items affects the influence of these demographic and service specific variables. This is illustrated more clearly in Table 12 where only those variables that were found to be empirically important at some point in the analysis were used to construct a more efficient, empirically based model. Inspection of the steps adding general attitudes regarding the equity of the tax system, assessment of local government performance and desired role for local government in meeting needs and solving problems indicate that again these attitudes seem to be providing independent explanations for behavior and to be explaining more thoroughly the variance previously explained

Table 11.

INFLUENCE OF VARIABLES EXPLORED ON GENERAL WELFARE SERVICE DELIVERY LEVEL CHOICES

	Step Number				
	1	2	3	4	5
INTERCEPT	38.942	44.927	44.676	44.115	47.857
OWNSHP	-.213*	-.201*	-.201*	-.180*	-.148*
	(-2.740)	(-2.593)	(-2.586)	(-2.313)	(-1.904)
AGE	.062	.065	.066	.102	.096
	(.239)	(.249)	(.253)	(.392)	(.367)
INCOME	-.207*	-.223*	-.223*	-.199*	-.131
	(-.424)	(-.456)	(-.457)	(-.407)	(-.269)
EDUC	-.091	-.079	-.080	-.050	-.052
	(-.374)	(-.327)	(-.328)	(-.204)	(-.214)
USED		-.110	-.110	-.114*	-.075
		(-.318)	(-.319)	(-.330)	(-.216)
EFF			.008	.003	.024
			(.009)	(.041)	(.030)
SERVAL				-.067	-.037
				(-.197)	(-.108)
DISHON				-.014	-.010
				(-.048)	(-.035)
MUNEM				.151*	.114
				(.422)	(.320)
TXFORM				-.101	-.092
				(-.690)	(-.630)
CONTRI				-.126*	-.145*
				(-.424)	(-.488)
TAXPAY				-.109	-.110
				(-.374)	(-.379)
TOMUCH				.225*	.189*
				(1.463)	(1.231)
SSPROV					-.231*
					(-1.746)
R^2	.145	.157	.157	.260	.298

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

Table 12.

INFLUENCE OF SELECTED VARIABLES ON GENERAL WELFARE SERVICE DELIVERY LEVEL CHOICES

Step-wise Regression

	Step Number						
	1	2	3	4	5	6	7
INTERCEPT	38.761	45.284	48.348	45.231	47.408	43.513	48.196
OWNSHP	-.187*	-.174*	-.223*	-.214*	-.198*	-.154*	-.120
	(-2.404)	(-2.235)	(-2.872)	(-2.755)	(-2.545)	(-1.980)	(-1.540)
INCOME	-.259*	-.271*	-.268*	-.272*	-.254*	-.261*	-.183*
	(-.530)	(-.555)	(-.547)	(-.557)	(-.520)	(-.534)	(-.375)
USED		-.117*	-.128*	-.119*	-.120*	-.127*	-.084
		(-.339)	(-.369)	(-.344)	(-.348)	(-.367)	(-.242)
CONTRI			-.124	-.113	-.108	-.114	-.139*
			(-.418)	(-.381)	(-.364)	(-.382)	(-.468)
MUNEMP				.136*	.153*	.150*	.104
				(-.380)	(.428)	(.418)	(.289)
TAXPAY					-.145*	-.117*	-.120*
					(-.498)	(-.403)	(-.413)
TOMUCH						.187*	.156*
						(1.213)	(1.015)
SSPROV							-.248*
							(-1.874)
R^2	.132	.145	.158	.177	.197	.229	.274

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

by home ownership.

Addition of the variable CONTRI, perception of the fairness of the tax shares paid by owners relative to renters, heightens the explanatory power of ownership. In other words, specifying the sense of inequity owners and renters may feel under the current property tax system draws off some of the confusion surrounding the home ownership variable, increasing its explanatory power.

As in the case of federal welfare service choice behavior, addition of the variables measuring the role the local government ought to play in meeting needs and solving problems drains the explanatory power of home ownership. This suggests that much of the difference previously seen between owners and renters lies not in their different perceptions of the costs of services to themselves, but rather in their differing attitudes regarding the responsibility of individuals to provide for themselves versus the responsibility of government to provide for them. When this latter dimension is accounted for, there is no significant difference in the choice behavior of owners and renters in either the federal or general welfare area.

This empirically based working model, then suggests that as in the case of federal welfare service delivery level choices, individual choice behavior for general welfare service delivery levels is based on several possibly conflicting considerations relating to one's perceptions of benefits derived from these services, one's perceptions of the costs of these services, one's perception of the efficiency with which these services are provided, and one's sense of obligation to help others through the vehicle of municipal government. Past

service usage is associated with choices for increases in general welfare service delivery levels. Higher income and a belief that home owners pay a disproportionate share of taxes relative to renters, both of which measure perceptions of costs, and belief that municipal employees are not diligent, a measure of the efficiency with which this tax money is used, are associated with choices for lower levels of general welfare service delivery levels. And generalized attitudes indicating a belief that both individual taxpayers and the local government have a role to play in solving problems and meeting needs operate to increase choices for general welfare service delivery levels.

Thus, while federal welfare services and general welfare services are two distinct clusters of municipal services for the population studied, choices for their delivery levels appear to be based on very similar considerations. This is probably due to the similarities of these services. In contrast to more traditional services such as education, police protection and fire protection, federal and general welfare services are relatively new and for the most part have been supplied by local governments only within the last generation. The data indicate that there is still some question in people's minds as to whether or not the government should even be providing these services at all, as indicated by the importance of general attitudes measuring the role local government should play in solving problems.

In addition, these federal and general welfare services are primarily services for which there are no visible products, such as those produced by capital maintenance or fire fighting services. This lack of a visible product probably makes it difficult for individuals

to assess the amount or quality of work performed. The result is that when the specific costs of the services are not known and the services themselves are not visible, citizens appear to fall back on more general attitudes regarding the role local government should be playing and the overall quality of its performance as a basis for making choices for specific service delivery levels. What is unclear is exactly how these generalized attitudes develop and the extent to which they are based on data specifically relevant to general and federal welfare services.

Capital Maintenance Services

Exploration of the bases on which capital maintenance service choices are made indicate that citizens draw on different types of knowledge than they do when making choices for federal and general welfare services.

Capital maintenance services include snow removal, street and sidewalk repair, and maintenance and repair of water and sewer facilities. In the separate regressions discussed in earlier chapters, it was found that lower educational attainment, perception that these services were being inefficiently provided, and belief that the property tax is the best way to raise money were independently associated with choices for higher levels of capital maintenance services. This suggested that dissatisfaction with the quality of services provided for the money paid and more traditional, less flexible views about how these services should be provided and financed form the bases on which choices for higher levels of

municipal services are made.

Two versions of the working model exploring the bases of capital maintenance service delivery level choices are presented on the following pages, and they tend to substantiate these earlier findings. Table 13 shows how the working model illustrated in Chart 2 operates for the full range of variables explored. Inspection of the steps indicates that as in the case of general and federal welfare service choice behavior, addition of general attitudinal information appears to depress the explanatory power of the demographic variables. However, when only those variables that were found to be empirically important at some point in the analysis are used in the development of a more efficient, empirically based working model, as shown in Table 14, a clearer picture of the bases on which these choices are made emerges.

The most important findings, as Table 14 indicates, is that choices for capital maintenance services are heavily influenced by direct contacts with the products of these services. In fact, perception of the efficiency with which each service in the capital maintenance cluster is provided is the single most important variable in explaining this choice behavior. This contrasts strongly with observed choice behavior for federal and general welfare services where specific contact with the service was significant but of relatively less importance in influencing choice behavior.

In addition educational attainment and general attitudes regarding the diligence of city employees and the use of property taxes as a source for municipal revenue contribute to forming the basis on which these choices are made.

Table 13.

INFLUENCE OF VARIABLES EXPLORED ON CAPITAL MAINTENANCE SERVICE DELIVERY LEVEL CHOICES

	Step Number 1	2	3
INTERCEPT	10.715	7.064	7.115
OWNSHP	-.039 (-.126)	-.055 (-.181)	-.057 (-.185)
AGE	.007 (.006)	.127 (.123)	.120 (.116)
INCOME	-.127 (-.066)	-.090 (-.047)	-.063 (-.033)
EDUC	-.164* (-.171)	-.101 (-.106)	-.114 (-.119)
USED		NA	NA
EFF		.440* (.378)	.484* (.415)
SERVAL			.003 (.003)
DISHON			.028 (.025)
MUNEMP			.140* (.099)
TXFORM			-.148* (-.256)
CONTRI			-.066 (-.056)
TAXPAY			.049 (.038)
TOMUCH			.006 (.009)
SSPROV			.044 (-.083)
R^2	.067	.246	.298

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.
NA = Not Applicable.

Table 14.

INFLUENCE OF SELECTED VARIABLES ON CAPITAL MAINTENANCE SERVICE DELIVERY LEVEL CHOICES

Step-wise Regressions

	Step Number				
	1	2	3	4	5
INTERCEPT	10.705	7.725	8.354	7.593	7.442
INCOME	-.139*	-.105	-.087	-.083	
	(-.072)	(-.054)	(-.045)	(-.043)	
EDUC	-.165*	-.144*	-.129*	-.140*	-.172*
	(-.172)	(-.150)	(-.134)	(-.146)	(-.180)
EFF		.414*	.425*	.445*	.451*
		(.355)	(.365)	(.382)	(.389)
TXFORM			-.151*	-.157*	-.166*
			(-.260)	(-.272)	(-.287)
MUNEMP				.153*	.155*
				(.108)	(.109)
R^2	.065	.234	.256	.279	.273

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

Earlier it was suggested that the education and tax revenue variables might operate as measures of acceptance of more traditional roles of government. Having less education probably inclines a person toward more traditional perceptions of what constitutes a problem and what constitutes a solution. This may explain the relationship between lower educational attainment and choices for increased levels of municipal services, since these services are some of the more traditional in the domain of municipal control. A similar explanation was offered earlier for the observed relationship between acceptance of the property tax as the best way to raise revenue and support for increased levels of capital maintenance services. Property taxes are the most traditional method of raising revenue and certainly many city services, particularly the capital maintenance services, affect property values.

Finally, more general attitudes regarding the efficiency of municipal employees are related to choices for capital maintenance service delivery levels. This suggests that although citizens want more capital maintenance services when they feel the city is not doing a good enough job at providing these services for the money paid, there is independent pressure depressing these choices if it is perceived that city workers in general are unproductive and dishonest.

As was seen in a discussion of the bases on which choices for federal and general welfare services are made, this productivity variable continuously emerges as important in influencing choice behavior. Because so many municipal services are highly labor intensive, and in many cases do not have a visible product, citizen

attention is focused on the employees themselves. As a result, perceptions of how productive these employees are is important in influencing choice behavior.

Taken together, these findings suggest that choices for capital maintenance services function in a manner very different from those for general and federal welfare services. Rather than relying on general attitudes about what role the local government should take in meeting people's needs and solving community problems, as was the case with the less visible general and federal welfare services, citizens seem to depend on direct experience with capital maintenance services when making choices for their delivery levels. These are more traditional municipal services with an established history of provision by public rather private sources. In addition their products are for the most part visible to all citizens and almost all citizens must come into contact with these products. As a result, there is little need to rely on more general attitudes regarding the role local government should play. Instead, citizens draw on their perception of how well the city is supplying these specific services, support for more traditional roles for the local government, and a generalized sense of the productivity of city employees.

Fire Fighting and Police Services

In the case of fire fighting and police services, the working model presented in Chart 2 explains very little of the observed delivery level choice behavior. The major reason for this lack of explanation of behavior appears to be less a problem of the working

model than of lack of variance in choice behavior. As Table 2 indicates, more than 90 percent of those responding chose to have these services provided at current or increased levels. This choice behavior probably reflects continuously increasing problems with crime in general, and arson in particular, in older American cities.

Despite the inability of the working model to predict behavior in these two areas, however, it does provide some insight into the bases on which citizens make these service delivery level choices. The models suggest that choice behavior in each of these areas is at least partly based on perceptions of specific service products and more generalized views regarding the responsibility of individuals and city government to help one another in solving problems.

The fire services cluster was composed of a single item, fire fighting services. In previous regressions it was found that lower educational attainment and belief that people should pay for services even if they don't use them were related to choices for higher levels of fire services. The working models, as shown in Tables 15 and 16 do not fully substantiate.

The models suggest that fire fighting service choice behavior appears to reflect somewhat the nature of fires. Fires are irregular occurrences which, when striking, are potentially extremely destructive not only to the structure in which the fire started, but also adjacent structures. In addition, fires are problem situations not solvable by the individual whose structure is burning without the help of experienced fire fighters and sophisticated equipment. As a result, it is not surprising that citizens appear to view municipal fire

Table 15.

INFLUENCE OF VARIABLES EXPLORED ON FIRE SERVICE DELIVERY LEVEL CHOICES

	Step Number 1	2	3
INTERCEPT	3.430	3.259	2.866
OWNSHP	-.083 (-.095)	-.079 (-.090)	-.013 (-.015)
AGE	.003 (.001)	.014 (.005)	.091 (.031)
INCOME	.066 (.012)	.074 (.013)	.092 (.017)
EDUC	-.148* (-.054)	-.177* (-.065)	-.105 (-.038)
USED		NA	NA
EFF		.150* (.130)	.145* (.126)
SERVAL			.078 (.020)
DISHON			-.047 (-.015)
MUNEMP			.120 (.029)
TXFORM			-.026 (-.015)
CONTRI			.073 (.022)
TAXPAY			-.180* (-.054)
TOMUCH			.126 (.072)
SSPROV			-.049 (-.033)
R^2	.025	.046	.124

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.
NA = Not Applicable.

Table 16.

INFLUENCE OF SELECTED VARIABLES ON FIRE SERVICE DELIVERY LEVEL CHOICES

Step-wise Regressions

	Step Number			
	1	2	3	4
INTERCEPT	3.428	3.281	3.585	3.293
EDUC	-.131* (-.048)	-.161* (-.056)	-.098 (-.036)	-.110 (-.040)
EFF		.151* (.131)	.123 (.107)	.135* (.118)
TAXPAY			-.204* (-.062)	-.175* (-.053)
TOMUCH				.142* (.082)
R^2	.017	.039	.077	.096

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

protection services as insurance. This would explain the finding that belief that individuals should pay for services even if they do not use them and belief that the government is not doing too much for citizens are associated with choices for higher levels of service delivery in this area.

Perception of specific fire service delivery efficiency is also significantly related to choice behavior, with perceptions of inefficiency being associated with choices for higher delivery levels. Again, as in the case of capital maintenance services, fire fighting services are traditional city services and are highly visible, even if not used by all individuals. Perception that these extremely necessary services are being poorly provided encourages choices for more services in this area.

Police service choice behavior appears to be based on considerations somewhat similar to those for fire service choice behavior.

Police services include police patrolling and other crime prevention work and police crime investigation and enforcement of laws. In previous regressions it was found that of all the variables explored, only perception of the efficiency of police service delivery was significantly related to delivery level choices, although age was correlated with this choice behavior. The full working model and the smaller empirically based working model indicate, however, that choices for police services have a wider basis, including fear, perceptions of the quality of police service performance, and belief about the amount local government should be doing for individual citizens.

Table 17.

INFLURNCE OF VARIABLES EXPLORED ON POLICE SERVICE DELIVERY LEVEL CHOICES

	Step Number 1	2	3
INTERCEPT	6.686	6.138	4.695
OWNSHP	-.006 (-.015)	-.003 (-.008)	.049 (.122)
AGE	.107 (.080)	.120 (.089)	.157* (.117)
INCOME	.073 (.289)	.060 (.024)	.053 (.021)
EDUC	-.096 (-.077)	-.096 (-.077)	-.104 (-.083)
USED		NA	NA
EFF		.149* (.118)	.158* (.125)
SERVAL			.035 (.020)
DISHON			.139 (.095)
MUNEMP			.049 (.027)
TXFORM			.006 (.008)
CONTRI			.051 (.033)
TAXPAY			-.093 (-.062)
TOMUCH			.172* (.217)
SSPROV			-.002 (-.003)
R^2	.025	.047	.099

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.
NA = Not Applicable.

Table 18.

INFLUENCE OF SELECTED VARIABLES ON POLICE SERVICE DELIVERY LEVEL CHOICES

Step-wise Regressions

	Step Number				
	1	2	3	4	5
INTERCEPT	6.527	5.940	5.664	4.792	5.207
AGE	.128* (.095)	.143* (.106)	.141* (.105)	.182* (.135)	.182* (.135)
EFF		.151* (.120)	.162* (.128)	.163* (.130)	.150* (.119)
DISHON			.074 (.050)	.096 (.066)	
TOMUCH				.186* (.233)	.172* (.217)
R^2	.016	.039	.044	.076	.067

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

Age is significantly associated with choice behavior. Older citizens are more likely to choose higher levels of police service delivery than younger citizens, perhaps because of their greater fear and vulnerability to crime.

Perceived inefficiency of police service delivery is associated with choices for increased service delivery levels. This suggests that, as in the case of capital maintenance and fire fighting services, specific contact with this service or perceptions of specific police service products is an important element of choice making behavior.

And finally, perception that the local government is not doing too much for citizens is associated with choices for increased service delivery levels.

These findings indicate that while little fire service and police delivery level choice behavior can be predicted, the bases on which these choices are made can be explained to some extent by the hypothesized working model. As the actual choice behavior presented in Table 1 indicates, continued current or increased delivery of these services is considered crucial to most citizens. It is not surprising then, that at least part of this choice behavior is based on perceptions of the quality of service performance considering costs. In contrast to the case of capital maintenance, federal welfare and general welfare services, however, the perceived productivity of municipal employees does not significantly influence police and fire service choices. This further reinforces the suggestion that these services are considered so necessary that they must be provided no matter how expensive or inefficient this provision is.

Educational Services

Exploration of the working model illustrated in Chart 2 indicates that when all the variables explored are combined, very little of the choice behavior for educational services can be explained. Data in Table 2 indicate that in contrast to the case of police and fire services, the inability to explain educational service delivery level choice behavior is due not to the lack of variance in this choice behavior but rather to the fact that the working model is not particularly useful in explaining this behavior.

Educational services include elementary and high school education and public libraries. In the individual regressions discussed earlier it was found that being older, having higher income, believing that city employees were not productive and believing that the local government was providing too many welfare and other social services for people were independently associated with choices for decreases in educational service delivery levels.

It appears that when all of these variables are combined into one working model, however, their individual influences cancel one another out, rendering the model relatively incapable of explaining this behavior. The working models in Tables 19 and 20 do suggest, however, that two of the variables explored explain part of the considerations involved in making these decisions and could be used as the basis for developing a new working model.

Age and belief that the local government should not provide more welfare and other social services than it now provides are

Table 19.

INFLUENCE OF VARIABLES EXPLORED ON EDUCATION SERVICE DELIVERY LEVEL CHOICES

	Step Number			
	1	2	3	4
INTERCEPT	6.254	6.314	6.764	6.277
OWNSHP	.004 (.010)	.004 (.010)	.004 (.010)	.056 (.133)
AGE	-.232* (-.164)	-.232* (-.164)	-.228* (-.161)	-.212* (-.150)
INCOME	-.143* (-.054)	-.147* (-.055)	-.139 (-.052)	-.078 (-.029)
EDUC	.088 (.067)	.088 (.067)	.094 (.072)	.090 (.069)
USED		-.012 (-.021)	.005 (.008)	.052 (.093)
EFF			-.133* (-.145)	-.118 (-.128)
SERVAL				.109 (.059)
DISHON				.009 (.006)
MUNEMP				.117 (.060)
TXFORM				-.119 (-.150)
CONTRI				.020 (.013)
TAXPAY				.044 (.028)
TOMUCH				.025 (.030)
SSPROV				-.171* (-.238)
R^2	.077	.077	.095	.150

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

Table 20.

INFLUENCE OF SELECTED VARIABLES ON EDUCATION SERVICE DELIVERY LEVEL CHOICES

	Step Number						
	1	2	3	4	5	6	7
INTERCEPT	6.473	7.006	6.563	6.873	7.436	7.551	7.142
AGE	-.255* (-.180)	-.252* (-.178)	-.243* (-.172)	-.252* (-.178)	-.242 (-.171)	-.235* (-.166)	-.236* (-.167)
INCOME	-.108 (-.041)	-.103 (-.039)	-.105 (-.040)	-.092 (-.035)	-.040 (-.015)		
EFF		-.130* (-.141)	-.118 (-.128)	-.107 (-.116)	-.096 (-.104)	-.112 (-.121)	
MUNEMP			.115 (.059)	.119 (.061)	.091 (.047)		
TXFORM				-.097 (-.122)	-.085 (-.107)		
SSPROV					-.149* (-.207)	-.189* (-.264)	-.202* (-.282)
R^2	.071	.088	.101	.110	.128	.113	.100

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.

significant in influencing this choice behavior. Increasing age operates to depress choices for educational services, suggesting that older citizens who are less likely to make use of these services and who received their educations at a time when the school system provided fewer opportunities are unwilling to pay to have current services increased.

In addition, belief that the local government is providing too many services for individuals is also associated with choices for lower levels of educational services. Taken together these two variables suggest that choices for educational services are based in part on beliefs about how much the school system should be doing. Those who feel that a leaner, probably more classroom oriented educational system is desirable are unwilling to support an educational system that may seem to be increasingly involved in supplying extra, non-classroom services to students. How this model should be expanded to more fully explain this choice behavior, however, will be explored in the following chapter.

Chapter IX.

SUMMARY AND SUGGESTIONS FOR FURTHER RESEARCH

While the working model used in this analysis does not provide a complete explanation of municipal service delivery level choice behavior, it does provide some insights into this behavior and lead to suggestions as to how a new working model more thoroughly explaining this behavior might be constructed.

One of the major findings of this research is that the mental picture of municipal services held by citizens appears to contain clear images of a few services but fails to clearly distinguish among many others. Five specific service clusters emerged, dealing with fire protection, police protection, education, maintenance of capital equipment, and federal welfare services. Citizens appear to have clear images of these services and perceive them to be performing conceptually distinct functions.

A sixth large cluster of services emerged, which included free legal aid, consumer protection, city health clinics, emergency housing, pollution control, employment services, summer and after school programs for children, innoculations and other disease prevention programs, special education for children with learning problems, adult education, support of bus service and emergency medical service. That all of these services emerged in a single cluster suggests that the average citizen makes little distinction in the functions these services perform and instead tends to lump them into one group.

Seven services, including garbage pick-up, construction of new roads, bridges and highways, public parks, building inspection, running the city government, vocational training and encouragement of business and industry to move into the city failed to fall into any cluster.

Drawing on Maslow's theory of the hierarchy of needs, this study had suggested that the basis for citizen distinctions among groups of services would be problems perceived or needs felt. If that in fact is the basis for the observed clustering, it suggests that citizens perceive some very specific problems, such as need for police protection, fire protection, maintenance of capital equipment, education and federal welfare services. Perception of need, however, does not necessarily imply desire for increased services. Only in the case of police services was there strong citizen interest in increasing the level of services delivered. For fire protection, capital maintenance and education services, a majority of citizens wanted services maintained at their current levels. And for federal welfare services there was strong citizen interest in having delivery levels decreased.

The assumption that citizens make distinctions among and tend to conceptually group services based on the needs they fill and the problems they solve implies that the larger group of services emerging in the general welfare service cluster are perceived to be directed at solving similar problems and fulfilling similar needs. On the surface this cluster appears to be composed primarily of services aimed at meeting specific individual needs rather than solving more global community problems. This suggests then that citizens fail to

distinguish among a large group of personal services and instead tend to conceptually deal with them as though they were one group solving one type of problem.

There may, however, be other explanations or reasons why these services cluster in the manner observed in addition to that based on perceived fulfillment of needs or solution of problems. These additional explanations are worth exploring because an understanding of the conceptual bases from which citizens develop mental pictures of services is important in explaining why individuals make observed service delivery level choices.

One additional explanation of the distinction citizens make among services is based on the historical development of municipal services. Through time, municipalities have increased the number and variety of services they provide. Four of the observed service clusters are composed of traditional city services: fire, police, education and capital maintenance services. Historically these services have been provided by the municipal government in most cities and there is probably considerable acceptance of the role local government plays in the delivery of these services. In contrast, the remaining two clusters, federal and general welfare services, contain services provided by governments only recently. Until the last generation many of these services were provided by charitable institutions or private industry, if they were provided at all. Use of the working model to explore choices made for these two clusters of services indicated that there was still considerable question in people's minds as to whether or not the local government should even be involved in providing these

services. This suggests that individuals may make gross distinctions among services based on their habituation to having them provided by the local government.

Another way in which these clusters can be distinguished relates to the visibility of their products. In the case of fire, police and capital maintenance services, production or lack of production of services is visible to nearly all citizens. Police patrolling, fire engines racing to fires, and street conditions are clearly visible. In the case of federal and general welfare services and to some extent education services, however, the use of services is restricted and the products of service delivery are less visible. As a result the ordinary citizen is probably less aware of specifically what products these services provide or how well they are providing them. It is important to remember that it is not the actual service product which influences mental images and choice behavior, but rather the citizen's perception of what this product is. And some services clearly produce more visible products.

A final perspective from which these clusters of services can be viewed is that of the size of the direct beneficiary of the service. Federal and general welfare services and education services appear to provide direct benefits to the specific individual using them, although it can be argued that they also provide indirect benefits to the community as a whole. In contrast, capital maintenance services, since they are services used by nearly everyone, benefit every community member directly. And fire and police protection are probably viewed as services benefiting the community as a whole rather than the specific

citizens who have occasion to use them directly, because of the insurance or protection services they provide.

The most probable explanation is that the mental mappings of municipal services observed in this study are based on a complex accumulation of influences including each of those suggested here: perception of service function, service product and service beneficiary and habituation to service delivery. This suggests that decisions regarding the level at which these services should be delivered will not be simply explained.

Further studies exploring the manner in which citizens conceptually group services need to be conducted to verify these findings and explain their occurrence. If these findings are reflective of the actual situation, however, they suggest that citizens, when asked to make decisions on municipal service delivery levels, are basing their decisions on a different configuration of delivery functions than are those individuals proposing budgets and programs. The historically developed and politically reinforced differentiation among services and programs that is so much a part of official thinking appears to have little influence on citizen conceptualization. Instead citizens seem to be organizing services into groups quite different from those of municipal agencies or programs. It may be that some of the dissatisfaction expressed with government spending and service policy arises from the different mental maps of services that the two groups hold.

The second major finding of this study deals with the complexity of the decision-making process and the bases on which choices for different municipal services are made. A working model was used to

probe the bases on which these decisions were made by looking at the relative importance of demographic characteristics, past service usage, perceptions of the efficiency with which specific services are delivered, and more general attitudes regarding the equity of the tax structure, the diligence and productivity of municipal employees, and the role local government should be playing in solving problems and meeting needs.

The results of this study indicate that municipal service delivery level choice behavior is more complex than the studies reviewed in Chapter II appear to indicate. Simple relationships between demographic characteristics and choice behavior appear to have little explanatory value. Rather it was found that each of the variables in the working model was of varying importance in influencing choices for delivery levels of different services.

Four basic patterns of choice behavior were uncovered by the working model, explaining choices for federal and general welfare services, capital maintenance services, fire and police services, and education services.

While federal and general welfare services clustered into two groups, choices for delivery levels in these two areas seem to be based on similar considerations: perception of service benefits and service costs, perception of the efficiency with which these services are provided, and one's sense of obligation to help others via the municipal government. These considerations exert conflicting pressures on the choice situation.

Past service usage and, in the case of federal welfare services, anticipated future use are associated with choices for higher levels of services in these areas. Each of these variables measures service benefits. Higher income, a perception that owners pay a disproportionately high share of the costs of running city government relative to renters, and belief that municipal employees are not productive and services are not efficiently provided are associated with choices for lower levels of municipal services. Each of these variables measures either the costs of services or the costs relative to benefits.

Most important, however, is the observed influence on choice behavior of general attitudes regarding the role local government should play in providing these services. Belief that both individual taxpayers and the local government have a role to play in solving problems and meeting needs operate to increase choices for general and federal welfare services. This is the single most important set of variables influencing this choice behavior and suggests that there is still some question in peoples' minds as to whether or not the government should be providing these services at all.

What emerges is a picture of a group of services with limited beneficiaries, invisible benefits and obscured costs. These services appear to benefit specific individuals rather than the whole community, although they may benefit the whole community indirectly. While citizens may have some picture of the benefits provided by these services, the fact that these services produce little visible product makes it difficult for individuals to assess the amount or quality of work performed. In addition, because the specific costs of these

services are not known, it is difficult for citizens to measure the value of the services provided in these areas relative to their cost. The result is that citizens appear to fall back on more general attitudes regarding the role local government should be playing and the overall quality of local government performance as foundations for making choices for federal and general welfare service delivery levels. What needs to be further explored is exactly how these more general attitudes develop, including the extent to which they are based on data specifically pertaining to general and federal welfare services versus data pertaining to other services that are then grafted into the welfare decision making process.

The bases on which decisions for capital maintenance services are made contrast sharply with those for general and federal welfare service choices. Rather than relying on general attitudes regarding the role local government should play in meeting needs and solving problems, citizens seem to depend on direct experiences with capital maintenance services when making choices for their delivery levels.

Perception of the efficiency with which these services are provided is the single most important variable influencing delivery level choice. And in contrast to the case of federal and general welfare services, perception that capital maintenance services are being inefficiently provided is associated with choices for higher delivery levels.

Though exerting considerably less influence, perception that city employees are unproductive is independently associated with choices for lower levels of service delivery. And acceptance of more

traditional roles for local government, measured by lower educational attainment and acceptance of the property tax, are associated with choices for higher levels of municipal services.

The picture that emerges is one of a cluster of services traditionally supplied by the local government, considered extremely important by all citizens, and used by all community residents. Because all citizens come into contact with these services and are aware of their products, decisions regarding delivery level choices can be made on the basis of service-specific information rather than on the basis of more general attitudes. At the same time, these services appear to be considered so important that perceptions that they are being inefficiently provided encourage demands for more services. These demands are tempered somewhat, however, by demands that government employees be diligent and productive.

While the working model was of considerable use in explaining choices for federal and general welfare services and capital maintenance services, it provided little explanation of the variance in choice behavior for police and fire service delivery levels. This lack of explanation appears to be due more to lack of variance in behavior than to problems with the working model, however. More than 90 percent of those responding chose to have these services provided at current or increased levels.

Nevertheless this working model does offer some explanation of the bases on which these decisions are made. Perception of the efficiency of service delivery, insurance against loss or danger, and fear seem to be the bases on which these choices are made.

Perceptions that these services are being inefficiently provided is associated with choices for increases in service delivery levels. What is worth noting, however, is that in the case of police and fire services, in contrast to capital maintenance services, perception of the diligence of government employees has no significant influence on service delivery level choices. This suggests that these services are considered so important that inadequate provision, no matter what its basis, must be redressed. Corruption, inefficiency and lack of employee productivity will be tolerated if only these services are adequately provided.

Increased age, which probably measures fear and vulnerability to crime, is associated with choices for higher levels of police services. And the feeling that each person should pay for municipal services even if he does not use them, an insurance variable, is associated with choices for higher levels of fire service delivery.

Taken together these findings suggest that police and fire services are probably the most important municipal services as far as citizens are concerned. In fact, it appears that they are considered so important that the cost of provision is not even a consideration. Only actual performance is taken into account when making delivery level choices.

The working model is weakest in exploring the bases on which choices for educational services were made. Despite wide variance in observed choice behavior, little of this variance can be explained. It appears that when all the variables explored are combined into one working model, their individual influences cancel one another out.

Despite the shortcomings of the overall working model, it does indicate that two of the variables measured are significant in explaining choices for educational services. Increasing age and belief that the local government should not be providing more services for people are associated with choices for lower levels of educational service delivery levels.

Taken together these two variables, and the lack of significant influence of the other variables, suggest that choices for educational services are based in part on beliefs about how much the school system should be doing. Those individuals who feel that the purpose of an educational system is to provide the basics are probably disturbed at the increasing involvement of the public school system in extra-curricular, non-classroom and experimental classroom activities. If these people have little direct contact with the school system, as would be the case with older residents, they have little specific data on which to judge the effectiveness of the current educational system and consequently must fall back on more general attitudes regarding the role they feel local government should be playing when making decisions.

These findings regarding the manner in which individuals cluster municipal services and the bases on which they make decisions regarding the delivery level of these clusters of services are useful as an initial step in understanding the complexities of public choice behavior. It is still necessary, however, to further explore how and why citizens make municipal service delivery level choices and what this implies for the method in which these decisions should be made.

The first step in such a process would involve replicating this study among similar and differing populations to determine how reliable these choice findings are. This would include:

--Replicating this study among different populations. Expanding the sample to include individuals other than just white male heads-of-household would probe the relationship between sex, race, ethnicity, etc. and choice behavior.

--Replicating this study in different cities. Conducting this study in cities similar to Worcester, Massachusetts and also conducting it in different types of cities would allow probing of the influence of city age, size, geographical location, isolation from other municipalities, taxation policies, etc., on choice behavior.

--Replicating this study among individuals receiving different levels of similar services and different arrays of services. Service delivery levels vary both across cities and within cities. Conducting this study in areas of varying service delivery levels and arrays would address questions regarding the influence of service delivery level on choice behavior and on perception of service delivery level and attitudes toward the local government.

This type of data would provide more information relating individual and municipal characteristics to choice behavior. However,

while this is important, it is even more important to probe further in an effort to understand why these relationships exist. To say, for example, that renters are more likely than owners to choose increased services in most areas studied provides a description of behavior but little explanation of why this behavior occurs or precisely what the variable home ownership measures. It is more useful to be able to understand that much of the explanation of the home ownership variable is due to different perceptions of how much an individual ought to do for himself versus how much he ought to be able to depend on local government to meet his needs and solve his problems. This example suggests that the ability of the working model to explore and explain this choice behavior could be increased by expanding the model to include more explicit probing of what individuals perceive to be problems and needs, how they measure costs and benefits of various services, and additional attitude dimensions. More specifically, further studies should explore:

--Problem and need perception. More specific measures of what different citizens perceive to be problems or needs and the functions they perceive services to fill are needed to understand why services cluster in the manner observed and why individuals make the choices they make.

--Perceptions of the costs of services. It is important not only to know what individuals perceive to be the costs to themselves of providing these services but also their attitudes toward the various methods of

paying for these services and the influence of this on choice behavior.

--Perceptions of the benefits of various services. This should include measures of direct and indirect benefits and past, current and anticipated benefits. In addition, perceptions of who benefits most from various services and who benefits least should be explored in an effort to understand how this influences choice behavior.

--Additional attitudinal information. This study explored only a few dimensions of general attitudes. Additional dimensions that should be probed relate to the influence of an individual's self confidence and his perception of his ability to support himself and his family, his sense of trust in other service users, etc., on choice behavior.

One final area in need of exploration is that of the implication of these findings for the method in which municipal expenditure decisions are made. Currently citizens have two types of opportunities to make municipal expenditure decisions: indirectly in general elections and directly in referenda. In the case of referenda, citizens are usually voting on a single issue and are not given information on costs. This study was a modification of the referendum situation only to the extent that it had individuals make decisions for the delivery levels of twenty-nine services at one time rather than only one. No cost information was made available to respondents.

It is unclear how the method of making choices influences behavior. In order to explore this, however, it would be useful to experiment with several methods of making choices. These might include:

--Soliciting choices for a few services and for a large number of services to determine how this influences choice behavior. It is unclear if and how citizens make trade offs in decisions of this nature, but this question could be explored experimentally by asking respondents to make delivery level choices for different types and combinations of services.

--Soliciting choices for municipal services with and without providing cost information. It would also be useful both to solicit an individual's perception of what the actual costs to himself of various services are in order to test the accuracy of these perceptions and to provide different indications of costs in order to measure the influence of cost perception on choice behavior.

A final area in need of exploration is that of the development of preferences and changes in choice behavior over time. Longitudinal studies could explore the development of choice behavior through time and the relationship of specific changes in social structure, service delivery and attitudes to this choice behavior.

The findings of this study clearly indicate that the area of citizen choices for municipal services is still in need of much exploration. Perhaps through use of additional working models exploring

areas of possible influence suggested in this chapter, a model can be developed to more fully explain this behavior.

Appendix A

MUNICIPAL SERVICE TYPOLOGY

A typology of municipal services organized into need areas is presented on the following pages. This typology shows the need clusters, the services that meet these needs, the range of forms these services can take, the range of service quality and quantity that may be provided, the range of possible service recipients, and the range of possible sources for financing each service.

The vertical dimension of this typology, showing the various groups of needs, is based on Maslow's theory of the hierarchy of human needs. Maslow developed a behavior motivation theory based on individual striving to meet five categories of fundamental needs--physiological, safety, love, esteem, and self-actualization (Maslow, 1968). This theory and its application to this research is explored more fully in Chapter II.

The horizontal dimension of the typology, showing a range of possible ways of meeting each need, is a reflection of Marx's notion that human needs are not constant but changing because they are socially conditioned--they change through time, with changes in social conditions, and among individuals located in different positions in the social structure (Marx, 1964; Mishra, 1975; Ollman, 1971).

The specific municipal services explored in this study were selected from this typology. The criteria for selection were that each of the hypothesized categories be adequately represented and that most of the Worcester city budget be covered by the services selected.

Chart A-1

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS

Need	Contemporary Term	Range of Form	Range of Quality
Food	Adequate diet--nutritionally balanced	1. supply with surplus food 2. supply with food stamps negotiable for the specific food items the recipient desires 3. supply with money 4. supply with meals	1. minimum daily nutritional requirements 2. consideration of ethnic taste in provision of minimum daily requirements 3. provision of level above minimum daily requirements but below average market basket 4. provision of average market basket value
Shelter	Adequate ("standard") housing	1. supply with space in group quarters 2. supply with private dwelling units 3. supply with rent stamps 4. supply with housing allowance 5. development of homesteading programs	1. minimum space to cover needs: sleeping, cooking, shared bathroom facilities 2. more than minimum needs, but greater density than one per 3. density of one per room
Clothing	Adequate clothing	1. supply with clothing 2. supply with clothing stamps 3. supply with clothing allowance	1. any available 2. clothing in relatively contemporary style

Chart A-1

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS (continued)

Need	Range of Quantity	Range of Recipients	Range of Payment Sources
Food	1. only in case of emergency 2. periodically 3. regularly (daily)	1. victims of disaster 2. all individuals unable to provide food for themselves or for whom it is not provided 3. all children and indigents with dietary levels falling below the agreed upon quality level 4. all individuals with dietary levels falling below the agreed upon quality level	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Shelter	1. only in case of emergency 2. periodically 3. regularly 4. temporary vs. permanent	1. victims of disaster 2. all individuals unable to provide any housing arrangements 3. all individuals unable to provide housing above substandard level 4. all individuals in housing with density per room greater than that willing to provide	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Clothing	1. specific items 2. minimum for one week 3. adequate amount for more than one week 4. as necessary vs. regularly	1. victims of disaster 2. all individuals unable to provide clothing for themselves or for whom it is not provided 3. all individuals without clothing at the agreed upon level	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Chart A-1

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS (continued)

Need	Contemporary Term	Range of Form	Range of Quality
Health Care	Provision of adequate services to maintain or reconstruct as nearly as possible good health	1. provision of emergency "crisis" medical care 2. provision of ambulatory care 3. provision of in-hospital care 4. provision of preventive medical care and health instruction 5. provision of drugs and other medical needs 6. provision of health insurance	1. necessary care only 2. therapeutic care
Income	Enough money to provide for satisfaction of basic individual maintenance needs	1. provision of income in kind 2. provision of stamps negotiable for maintenance needs 3. provision with money	1. enough to provide the minimum agreed on maintenance needs 2. enough to reach upper limit of poverty line 3. "median" U.S. family income
Employment	A job providing "living wages"--enough money to provide basic maintenance needs	1. make-work jobs 2. subsidization of industry to create jobs 3. supplementation of substandard salaries 4. job development in private sector 5. relocation to markets where job opportunities are better	1. jobs netting enough to meet minimum basic individual maintenance needs 2. jobs promising advancement and growth if worker performs 3. jobs paying at least poverty line wages

Chart A-1

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS (continued)

Need	Range of Quantity	Range of Recipients	Range of Payment Sources
Health Care	1. only in case of emergency 2. regularly; on demand	1. victims of disasters, accidents 2. all who need medical care but are unable to pay for it 3. all who need medical care	1. user fees 2. insurance (private or government) 3. income tax 4. property tax 5. corporation tax 6. commuter, other non-resident tax 7. sales tax 8. debt finance
Income	1. only in case of emergency 2. periodically 3. regularly	1. victims of disaster 2. all willing to work but unable to 3. dependents of all whose family income falls below agreed upon minimums 4. all whose income falls below agreed upon minimum	1. insurance (private or government) 2. income tax 3. property tax 4. corporation tax 5. consumer, other non-resident tax 6. sales tax 7. debt finance
Employment	1. part-time jobs 2. full-time jobs 3. jobs for major breadwinner in family 4. jobs for all able-bodied workers in family	1. those who have previously tried to find work but failed 2. those who are receiving support for any maintenance needs and not currently able to find work 3. all currently unemployed and underemployed	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Chart A-2

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS OVERLAPPING WITH SOCIAL CONTROL AND PROTECTION NEEDS

Needs	Contemporary Term	Range of Form	Range of Quality
Utilities	Guaranteeing adequate provision of heat, light, and energy for functioning of individual	1. supply with given utility 2. supply with utility at reduced rate 3. supply with utility stamps 4. supply with utility money	1. minimum deemed necessary to meet minimum level of basic individual maintenance needs 2. minimum deemed necessary to meet agreed upon level of basic individual maintenance needs 3. unlimited supply
Public Health Programs	Protection of community from disease Provision of pro-health attitudes	1. education 2. medical services (see earlier entry) 3. requirements of minimum personal health care 4. mass screening, vaccination	1. minimum deemed necessary to meet minimum public health needs 2. minimum deemed necessary to meet maximum public health needs

Chart A-2

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS OVERLAPPING WITH SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Need	Range of Quantity	Range of Recipients	Range of Payment Sources
Utilities	1. minimum deemed necessary to meet minimum level of basic individual maintenance needs 2. minimum deemed necessary to meet agreed upon levels of basic individual maintenance needs 3. unlimited supply	1. all who can't afford it 2. all private citizens 3. all individuals and industry	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident rax 6. sales tax 7. debt finance
Public Health Programs	1. minimum deemed necessary to meet minimum public health needs 2. minimum deemed necessary to meet maximum public health needs	1. all who can't afford it 2. all private citizens 3. all individuals and businesses	1. user fees 2. insurance (private , gov.) 3. income tax 4. property tax 5. corporation tax 6. commuter, other non-resident rax 7. sales tax 8. debt finance

Chart A-2

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS OVERLAPPING WITH SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Need	Contemporary Term	Range of Form	Range of Quality
Water	Adequate drinkable water	1. supply with water 2. supply with water at reduced rate 3. supply with water stamps 4. supply with water money	1. water that meets minimum safety standards 2. pure water 3. chemically treated water
Sanitation	Sewage treatment, waste disposal, garbage collection	1. supply with sanitation services 2. supply with sanitation services at a reduced rate 3. supply with sanitation stamps 4. supply with sanitation money	1. sanitation services that meet minimum public health requirements 2. sanitation services that are the maximum technically possible 3. sanitation services that reach a level of aesthetic pleasantness (clean streets)
Pollution Control	Protection of the environment, including air, land, and water, from health reducing or disease-causing pollution (including noise)	1. legislate air pollution control guidelines and fine violators 2. sell permissions to pollute and fine violators	1. pollution control that meets the minimum industrial and individual costs 2. pollution control that meets the minimum public health needs 3. pollution control meeting "maximum" health standards

Chart A-2

MUNICIPAL SERVICE TYPOLOGY: BASIC INDIVIDUAL MAINTENANCE NEEDS OVERLAPPING WITH SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Need	Range of Quantity	Range of Recipients	Range of Payment Sources
Water	1. minimum for drinking, cooking and bathing 2. unlimited amounts	1. all who can't afford it 2. all private citizens 3. all individuals and businesses	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Sanitation	1. in case of disaster 2. weekly 3. daily	1. all who can't afford it 2. all private citizens 3. all individuals and businesses	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Pollution Control	1. action only in case of emergency 2. continuous program		1. pollution fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS

Need	Contemporary Term	Range of Form	Range of Quality
Jails	Protection of society from criminal elements Rehabilitation of criminal elements	1. total institutionalization, separated from rest of society 2. Institutionalization in small units in the community 3. release time, work-house units, half-way houses, etc.	1. emphasis on punishment 2. emphasis on maintaining bodily needs 3. emphasis on rehabilitation
Mental Institutions	Protection of society from deviant elements Rehabilitation of deviant elements	1. total institutionalization, separated from rest of society 2. institutionalization in small units in the community 3. out-patient units 4. testing	1. emphasis on meeting basic bodily needs 2. emphasis on rehabilitation
Fire Protection	Adequate fire protection	1. volunteer 2. professional 3. building code development 4. building inspection	1. minimum equipment and personnel (can reach fire in X+Y minutes) 2. maximum equipment and personnel (can reach fire in X minutes)

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Jails	1. certain "minimum" crowding in cells . . . . 2. highest level of quality for all prisoners	1. youth offenders 2. first offenders 3. all adult offenders 4. all offenders	1. income tax 2. property tax 3. corporation tax 4. commuter, other non-resident tax 5. sales tax 6. debt finance
Mental Institutions	1. enough to insure basic maintenance needs 2. enough to insure one-to-one relationship with counsellor or therapist	1. severely disturbed, retarded only 2. mildly disturbed, retarded through severely disturbed, retarded 3. youth 4. youth and adults	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Fire Protection	1. minimum equipment and personnel (can reach fire in X+Y minutes) 2. maximum equipment and personnel (can reach fire in X minutes)	1. all private citizens 2. all individuals and businesses	1. user fees 2. insurance (pvt or govt) 3. income tax 4. property tax 5. corporation tax 6. commuter, other non-resident tax 7. sales tax 8. debt finance

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Needs	Contemporary Terms	Range of Forms	Range of Quality
Disaster Relief	Provision of individual maintenance needs	1. provision in kind 2. provision of funds	1. provision of food, shelter and medical care . . . 2. provision of all basic individual maintenance needs, including money and job
Courts	Adjudication of disputes Interpretation of laws	1. trial only 2. legal aid 3. special courts	1. judge only vs. jury trials 2. all the legal aid you can buy vs. free legal aid for all 3. trial as there is space on the docket vs. speedy trial for all (within X days) 4. one court vs. special courts
Government	Enforcement of constitution and Bill of Rights Coordination of services Corruption free tax collection	1. mayor 2. city manager 3. council president	

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Disaster Relief	1. provision of food, shelter and medical care . . . 2. provision of all basic individual maintenance needs, including money and job	1. only the most needy victims 2. all victims	1. user fees 2. insurance (private or government) 3. income tax 4. property tax 5. corporation tax 6. commuter, other non-resident tax 7. sales tax 8. debt finance
Courts	1. limited number of judges and lawyers 2. as many judges and lawyers as needed to perform at agreed upon level of court performance	1. all indigent defense victims 2. all indigent defense and prosecution victims 3. all individuals	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance
Government			1. income tax 2. property tax 3. corporation tax 4. commuter, other non-resident tax 5. sales tax 6. debt finance

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Need	Contemporary Term	Range of Form	Range of Quality
Police	Enforcement of society's laws Protection of individuals from criminal elements	1. man on the beat 2. patrol cars 3. special squads (bomb, vice, drug, etc.)	1. minimum training 2. professional force, with high entry standards and continuing training

Chart A-3

MUNICIPAL SERVICE TYPOLOGY: SOCIAL CONTROL AND PROTECTION NEEDS (continued)

Name	Range of Quantity	Range of Recipients	Range of Payment Sources
Police	1. minimum protection of lives and property 2. full staffing of auxiliary units and heavy staffing of street patrols, etc. 3. central police precinct vs. scattered neighborhood precinct offices	1. all citizens 2. all citizens and businesses	1. income tax 2. property tax 3. corporation tax 4. commuter, other non-resident tax 5. sales tax 6. debt finance

Chart A-4

MUNICIPAL SERVICE TYPOLOGY: COMUNITY DEVELOPMENT NEEDS

Needs	Contemporary Terms	Range of Form	Range of Quality
Road Construction	Construction of adequate, safe roads and maintenance (including snow removal)	1. construction and maintenance of arterial roads 2. construction and maintenance of all streets and roads, guaranteeing adequate, plowed road surface to all individuals and businesses	1. minimum services and periodic maintenance 2. best quality surface and regular maintenance
Transportation Coordination	Provision of adequate, coordinated traffic flow	1. provision of adequate, coordinated public transit 2. coordination of traffic flow to insure efficient movement 3. provision of motorist help (highway patrol, towing) 4. subsidies	1. some services irregularly (e.g. rush hour) 2. all services all the time, with minimum waiting time and conjestion
Business Development	Creation of climate that encourages business and industry to come into the metropolitan area	1. job search 2. verbal business encouragement 3. subsidization of business a. tax break b. land c. other	1. for specific industrial sectors vs. for all sectors

Chart A-4

MUNICIPAL SERVICE TYPOLOGY: COMMUNITY DEVELOPMENT NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Road Construction	1. major thoroughfares in city 2. all streets in city	1. all private citizens 2. all individuals and businesses	1. user fees 2. income tax 3. property tax 4. gasoline, vehicle registration tax 5. commuter, other non-resident tax 6. corporation tax 7. sales tax 8. debt finance
Transportation Coordination	1. all the time vs. part-time 2. throughout all of city vs. part of city	1. some segments of population only (e.g. school children, elderly) 2. all citizens	1. user fees 2. insurance (private or government) 3. income tax 4. property tax 5. gasoline, vehicle registration tax 6. commuter, other non-resident tax 7. corporation tax 8. sales tax 9. debt finance
Business Development	1. to maintain current growth rate vs. to expand 2. in all parts of the city vs. some parts only	Not applicable	1. income tax 2. property tax 3. commuter, other non-resident tax 4. corporation tax 5. sales tax 6. debt finance

Chart A-4

MUNICIPAL SERVICE TYPOLOGY: COMMUNITY DEVELOPMENT NEEDS (continued)

Needs	Contemporary Terms	Range of Form	Range of Quality
Job Development	Job finding and enrichment within the existing industry and business base of the municipality	1. job search 2. job training (basic skills and upgrading 3. job placement 4. job site monitoring after placement 5. vocational guidance 6. city jobs	1. all jobs vs. selected jobs

Chart A-4

MUNICIPAL SERVICE TYPOLOGY: COMMUNITY DEVELOPMENT NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Job Development	1. in times of high unemployment vs. regularly	1. all citizens receiving welfare or city aid 2. all citizens looking for work 3. all businesses	1. user fee 2. income tax 3. property tax 4. commuter, other non-resident tax 5. corporation tax 6. sales tax 7. debt finance

Chart A-5

MUNICIPAL SERVICE TYPOLOGY: EDUCATION, SOCIAL AND INDIVIDUAL DEVELOPMENT NEEDS

Needs	Contemporary Terms	Range of Forms	Range of Quality
Education	Teaching every child to read, write and cipher at an acceptable level Providing every child with the tools to obtain and hold down a job and live a "productive" life Encouragement of higher education	1. day care 2. pre-school 3. nursery school 4. kindergartens 5. 1st - 12th grade 6. trade/vocational schools 7. junior college 8. 4-year college 9. graduate school 10. professional school 11. adult education 12. remedial programs 13. special programs for the retarded, gifted, etc. *14. vocational guidance *15. health screenings 16. counselling *17. lunches 18. extra-curricular activities *19. transporation to and from school	1. minimum required vs. "best" available

*Already covered under headings of other services.

Chart A-5

MUNICIPAL SERVICE TYPOLOGY: EDUCATION, SOCIAL AND INDIVIDUAL DEVELOPMENT NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Education	1. for some vs. for all	1. to some segments of population vs. all	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Chart A-6

MUNICIPAL SERVICE TYPOLOGY: CULTURAL AND RECREATIONAL NEEDS

Needs	Contemporary Terms	Range of Forms	Range of Quality
Cultural and Recreational Affairs	Promotion of social well-being	1. parks 2. athletic facilities 3. museums and galleries 4. libraries 5. music and dance events 6. development of indiginous athletic and artistic talent 7. special athletic and cultural events	1. minimum mandated by law (e.g. school playgrounds) 2. creation of extensive system

Chart A-6

MUNICIPAL SERVICE TYPOLOGY: CULTURAL AND RECREATIONAL NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Cultural and Recreational Affairs	1. adequate for some residents vs. all residents	1. some population segments 2. all population segments	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Chart A-7

MUNICIPAL SERVICE TYPOLOGY: INDIVIDUAL RIGHTS AND CIVIL LIBERTIES NEEDS

Needs	Contemporary Terms	Range of Forms	Range of Quality
Individual Rights and Protection of Civil Liberties	Civil rights and civil liberties	1. law enforcement 2. program development	1. minimum federally mandated levels 2. active development of affirmative action, consumer protection, etc. programs and laws

Chart A-7

MUNICIPAL SERVICE TYPOLOGY: INDIVIDUAL RIGHTS AND CIVIL LIBERTIES NEEDS (continued)

Needs	Range of Quantity	Range of Recipients	Range of Payment Sources
Individual Rights and Protection of Civil Liberties	1. in times of crisis or when mandated 2. regularly	1. some individual vs. all individuals	1. user fees 2. income tax 3. property tax 4. corporation tax 5. commuter, other non-resident tax 6. sales tax 7. debt finance

Appendix B

VARIABLES OF DIFFERENTIATION

Individuals living in any municipality can be differented along a series of continui dealing with their personal demographics, family situation, relationship to the labor force, objective and subjective perceptions of their living situations, and personal values and goals. Chart B-1 delineates these dimensions of individual differentiation.

Many of these variables will cluster together in ways that reinforce choices for municipal services, such as education, income and position in the job heirarchy. At the same time, however, almost no individual will be in the position of having no conflicting preferences. In determining what the actual choices of any individual will be, it is necessary to predict which variables will be most significant in determining an individual's preferences for municipal services.

It is hypothesized that the following variables, because of the pervasiveness of their characteristics, will be the most important:

Views of the government
Education
Age
Home ownership
Income
Perception of service delivery efficiency
Previous usage of the service

The following variables should be of only moderate importance, because much of their influence will be accounted for by the more important predictors:

Chart B-1

INDIVIDUAL-RELATED VARIABLES HYPOTHESIZED TO INFLUENCE MUNICIPAL SERVICE DELIVERY LEVEL CHOICE BEHAVIOR

Personal Demographics

Age
Sex
Education
Income
Race/ethnicity/citizenship
Religion
Health/physical condition/mental condition
Criminal records
Demographic characteristics of family of origin

Family Situation

Marital status
Family size
Number of dependents
Stage in family cycle

Relationship to the Labor Force

Working/ever worked/looking for work/retired
Specific types of jobs held
Positions in job heirarchy
Job history--stability/occupational change

Objective and Subjective Perceptions of Living Situation

Home ownership/rental
Tax rate (municipal)
Perception of local and municipal-wide service delivery
Perception of change in service delivery
Perception of efficiency of service delivery
Usage of municipal services

Personal Values and Goals

Tastes in lifestyle
Views on government, especially role of government intervention
Personal goals and expectations
Attitude toward other groups in community
Attitude toward welfare of community in general and specific attitudes towards various components of this overall welfare
Value placed on specific services

Employment status
Family size
Race/ethnicity
Personal goals and expectations

The following variables should have little or no predictive power:

Sex
Religion
Marital Status
Family type
Employment type
Position in the job heirarchy

Cities can also be differentiated along a series of characteristics. Work by economists exploring the determinants of municipal budget size has attempted to relate the differences in their sizes to differences in the various demographic, financial and structural characteristics of the cities themselves (Brazer, 1959; Masotti and Bowen, 1965; Henning and Tussing, 1974; Clark, 1975; Booms, 1966; Johnson and Junk, 1970; Gramlich and Galper, 1973). This literature and other sociological literature suggest that the municipal characteristics delineated in Chart B-2 may be important in influencing individual choices for municipal expenditure levels.

City structure variables are hypothesized to operate by influencing perceptions of problems, by influencing perceptions of benefits and costs of services, and by providing parameters which limit or define possible problem solutions. In other words, choices made by individuals who have similar demographic characteristics but who live in different municipalities may differ because of the characteristics of the municipalities.

Chart B-2

MUNICIPAL CHARACTERISTICS HYPOTHESIZED TO INFLUENCE MUNICIPAL SERVICE DELIVERY LEVEL CHOICE BEHAVIOR

Specific City Conditions

Geographic location

Population

Density

Geographic size

Percentage of metropolitan population living in the municipality investigated

Socio-economic status of population

Age of population

Mobility of population

City age and rate of growth

Type of municipality

Current level of municipal services

Type of municipal government and degree of political competition

Tax structure

Zoning structure (degree of residential/industrial mix)

Ethnicity and segregation patterns

Amount and type of support from other governments

The following variables, because of the pervasiveness of their characteristics, should be most important in influencing choices:

Tax structure
Current level of municipal services
Population density
Electoral competition

The following variables should be of only moderate importance, because much of their influence will be accounted for by the variables mentioned above:

Growth rate
Heterogeneity of population
Percentage of Metropolitan population living in the municipality

The following variables should have little or no predictive power:

Geographic location
City age
City type
Population size
Geographic size
Zoning

Appendix C

WORCESTER, MASSACHUSETTS

The following chart describes Worcester, Massachusetts on the variables of differentiation delineated in Appendix B. The data for this chart were collected from census publications, publications produced by the City of Worcester, and previous studies conducted in Worcester (U.S. Bureau of the Census, 1967; U.S. Bureau of the Census, 1972; Worcester Office of Planning and Community Development, 1976; Sanders et al., 1975; Massachusetts Department of Commerce and Development, 1973).

Chart C-1

CHARACTERISTICS OF WORCESTER, MASSACHUSETTS

	Worcester, Massachusetts	
	1960	1970
City Size		
Total population	186,587	176,603
Area (square miles)	37	37.4
Density (number of people per square mile)	5,016	4,721
Characteristics of Residents		
Median age	35.0 years	33.2 years
65 years old and older	13.6%	14.7%
Under 18 years old	30.2%	29.3%
Median years of school completed	10.6 years	12.0 years
High school graduates	39.9%	49.8%
Median family income	$5,804	$10,038
Less than $3,000	15.4%	7.5%
$10,000 and over	13.9%	50.3%
Non-white residents	1.2%	1.9%
Residents of foreign stock	45.1%	37.2%
Major ethnic groups	Irish Italian Polish Swedish	Irish Italian Polish Swedish
Total Employed	72,743	72,150*
White collar	44.4%	49.3%
Professional, managerial	NA	22.2%
Sales, clerical	NA	27.1%
Manufacturing	37.9%	29.9%
Retail and wholesale	18.6%	21.1%
Services	NA	5.5%
Educational Services	NA	8.6%

Chart C-1

CHARACTERISTICS OF WORCESTER, MASSACHUSETTS

(continued)

	1960	1970
Total Employment (continued)		
Construction	NA	4.2
Craftsmen and foremen	NA	12.9
Government	NA	15.0
Housing Situation		
Owner-occupied housing	44.4%	46.1%
Median value of owner-occupied housing	$12,900	$17,919
Median gross monthly rent of renter-occupied housing	$70	$106
Number of families	46,945	43,618
Average number of persons per housing unit	3.1	3.1
Female-headed households	NA	15.0%
One-person households	NA	7.0%
Group quarters	NA	5.7%
	1964-65	1969-70
City Government Finances		
General Revenue	$59,187,000	$75,700,000
Intergovernmental Revenue	17,120,000	18,395,100
Taxes	33,905,000	44,700,000
Property taxes	33,592,000	44,342,400
(% taxes from property taxes)	(99.1%)	(99.2%)
Charges and miscellaneous	8,162,000	NA
Revenue per capita	317	429

Chart C-1

CHARACTERISTICS OF WORCESTER, MASSACHUSETTS

(continued)

	1964-65	1969-70
General Expenditure		
Total expenditure	$61,136,000	$74,100,000
Total excluding capital outlay	51,877,000	NA
Education	21,068,000	27,342,900
Highways	3,113,000	4,890,000
Public welfare	12,453,000	2,889,900
Health and hospitals	6,155,000	NA
Police protection	3,009,000	} 8,817,900
Fire protection	3,230,000	
Sewerage	1,887,000	} 2,000,700
Sanitation other than sewerage	21,000	NA
Parks and recreation	776,000	NA
Interest on general debt	888,000	NA
Debt outstanding	43,117,000	66,100,000
Expenditures per capita	328	420
City Government Employment		
Full-time employees	5,176	5,790
Payroll (full-time)	$ 2,416,000	$ 4,100,000

* = Civilian only
NA = Not Available

Appendix D

QUESTIONNAIRE CONSTRUCTION

In constructing a questionnaire to test the working hypotheses delineated in Chapter II, this author attempted to satisfy a number of conditions:

--to construct a questionnaire that could be easily administered to a large number of people in order to be able to differentiate choices for municipal services.

--to construct a questionnaire that could be administered in a number of cities in order to gain an understanding of the influences of city differences on individual choices for municipal services.

--to construct a questionnaire that would put the respondent in the position of having to allocate cutbacks and increases in expenditures among a large array of municipal services.

Before constructing a questionnaire a thorough investigation of the literature was undertaken, which found that previous work in the area of municipal service choice behavior tended to take one of four directions: (1) theoretical work by welfare economists exploring the possibility of constructing social welfare functions from individual rankings of preferences, (2) in-depth cost-benefit analyses of specific urban services, (3) citizen budget allocation studies using relatively detailed cost data and focusing on two or three services, and (4) studies

of citizen preferences for spending on municipal services that were correlated with little attitudinal or demographic data.

Kenneth Arrow's Social Choice and Individual Values initiated a long-standing debate among economists as to whether or not a social welfare function could be constructed from individual rankings. The assumption that such a function could be developed in this manner had begun with the early utilitarians.

> "To the nominalist temperament of the modern period, the assumption of the existence of the social ideal in some Platonic realm of being was meaningless. The utilitarian philosophy of Jeremy Bentham and his followers sought instead to ground the social good on the good of individuals. The hedonist psychology associated with utilitarian philosophy was further used to imply that each individual's good was identical with his desires. Hence, the social good was in some sense to be a composite of the desires of individuals. A viewpoint of this type serves as a justification of both political democracy and laisses-faire economics or at least an economic system involving free choice of goods by consumers and of occupations by workers."[1]

Arrow proceeded to logically prove that it was in fact impossible to construct a social welfare function from individual rankings. Since that time, a number of other welfare economists have entered the debate, supporting and contesting Arrow's assumptions and conclusions (MacRae, 1976; Goodman and Markowitz, 1952; Hildreth, 1953; Kemp and Asimakopulos, 1952; Simon, 1974). The crux of the debate ranges around the difficulty of determining the distances between rankings and the intensity of preferences. The result is that little empirical work attempting to determine social welfare functions has been carried out.

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[1]Kenneth Arrow, Social Choice and Individual Values (New York: John Wiley and Sons, Inc., 1963), 22-23.

Other social scientists have looked closely at specific services, conducting cost-benefit analyses that explore in depth the costs and benefits of specific services (Lieberman Research, Inc., 1975). There are two problems with these studies relative to the topic at hand: (1) they seldom take into consideration the desires or preferences of users of the services or of taxpayers, and (2) they seldom look at the costs and benefits of one service relative to the other services to which municipal monies must be allocated.

A third type of research has been carried out by public choice sociologists and economists in which citizen preferences for allocating municipal money among one, two or three services has been obtained. Actual dollar costs for services as specific as police cruisers, etc. have been used to give individuals parameters for the allocation of money through the use of techniques such as budget pies, lighted boards, or distribution of poker chips (Clark, 1974a; Clark, 1974b).

This type of study raises a number of questions and problems relative to the goals of the study at hand. The first is the difficulty of obtaining actual marginal costs of services. The facts that some services are in part financed by monies from other levels of government, some services generate income as well as costs (e.g. hospitals, some recreational facilities), current congestion levels for services are not always known, and municipal budgets are not very detailed all combine to make it difficult to accurately determine marginal costs.

Even if average costs are substituted for marginal costs, a second problem with these studies arises from differential levels of payments among citizens. Because most municipal revenues are raised

through property or income taxes rather than user fees, the cost of services will vary from citizen to citizen. Thus, for example, a citizen who might be willing to pay $50 additional annually to obtain increased garbage and trash pick-up, might behave differently if he knew that the cost to him was actually $100 or only $20.

A third problem arises from the small number of services used in these studies. When individuals are looking at money allocations to only a few services, they may spend money differently than if they are being asked to allocate this money among a wider array of services. For example, a person who is willing to increase his annual tax bill by $50 may have no objection to spending $25 on additional police protection and $25 on additional garbage collection. However, if he were asked to distribute this $50 among a larger array of services, he might behave differently.

And finally, a problem arises in this type of study in making comparisons across cities. Since the marginal costs of services vary from city to city, a study tied to specific cost figures would be difficult to compare across cities.

The fourth type of study, surveys asking individuals whether or not they want to spend money for certain services but relating these desires with only a limited number of demographic or attitudinal variables, was discussed earlier in the review of the literature. The problem with these studies is that they have not allowed determination of how or why individuals makes the choices they make, and how these choices vary among individuals.

The result of this literature review was the determination that a new type of questionnaire, different from those used by other researchers, would have to be developed to ascertain differential choices for municipal services.

In order to efficiently reach a large number of individuals, it was considered desirable to develop a mail-back questionnaire that could be hand-delivered. This eliminated the possibility of using a large array of paired comparisons or any complex market-basket type approach. Instead a check-list was developed in which the individual, with instructions indicating that any change in services might mean a similar change in taxes, could check off whether he wanted to cut back each service a lot, a little, keep it at the same level, or actually increase the service. Because other studies had indicated that respondents might not always relate increases in services to increases in taxes, an effort was made to reinforce the relationship between cost and quantity of service in as many ways as possible.

It can be argued that individuals will make different choices in situations where they know the costs of services than in situations where these costs are unknown. However, lack of specific cost information has the advantage of being more realistic in that it simulates referendum decision situations where individuals seldom know the costs of services. In addition, it eliminates the free rider problem, the deliberate understating of preferences in an attempt to reduce tax liability.

Because perceived efficiency of services and past usage of services were hypothesized to be important in influencing service delivery level choices, the list of services was rated for efficiency

and, for those services that could be used directly, previous family usage patterns.

A series of attitude statements designed to measure the respondents' attitudes toward the local government were developed and pre-tested. (A detailed discussion of the pre-test can be found in Appendix E). And demographic information was obtained.

A copy of the questionnaire and accompanying letters follow.

The Graduate School and University Center
of the City University of New York

Ph.D Program in Sociology
Graduate Center: 33 West 42 Street, New York, N.Y. 10036
212 790-4635

Dear Sir:

I am a student doing a study of how people in the city of Worcester would like to see their tax dollars spent and how they feel about city government. Your opinions on these matters are important. Would you please fill out this questionnaire and return it to me in the enclosed, stamped envelope.

All of your answers will be confidential. They will be examined and combined with those of several hundred other residents of Worcester for statistical reporting only.

The number at the top of the questionnaire will be used to help in the statistical analysis of the sampling of the data. That is, it is necessary to analyze from what areas of the city the responses are received. Please do not sign your name or put your address on this questionnaire.

In order to have a good sample of the residents of Worcester, this questionnaire must be filled out by the MALE HEAD-OF-HOUSEHOLD.

Won't you please take the time to fill out this questionnaire. It is something you may find quite interesting if you are concerned with the issues and problems of services and taxation in Worcester.

Thank you very much for your co-operation.

Sincerely,

Julie Wilson

Julie Wilson
Student, Graduate Center
City University of New York

1. Suppose that next year this city had to cut back services or increase taxes. How much would you be willing to cut back each of these services? Remember, if services are not cut back enough, there would have to be an increase in taxes.

	Decrease Services A Lot	Decrease Services A Little	Keep Services The Same	This Service Actually Should Be Increased
Elementary and high school education...	☐	☐	☐	☐
City health clinics.....	☐	☐	☐	☐
Free legal aid.....	☐	☐	☐	☐
Police patroling and other crime prevention work.....	☐	☐	☐	☐
Regular garbage pick-up.....	☐	☐	☐	☐
Public library.....	☐	☐	☐	☐
Fire fighting services.....	☐	☐	☐	☐
Running the city government.....	☐	☐	☐	☐
Vocational training.....	☐	☐	☐	☐
Food stamps or other food programs.....	☐	☐	☐	☐
Street and sidewalk repairs.....	☐	☐	☐	☐
Consumer protection.....	☐	☐	☐	☐
Support of bus service.....	☐	☐	☐	☐
Emergency medical service.....	☐	☐	☐	☐
Police crime investigation and enforcement of laws.....	☐	☐	☐	☐
Summer and after school programs for children.....	☐	☐	☐	☐
Construction of new roads, highways and bridges.....	☐	☐	☐	☐
Public parks.....	☐	☐	☐	☐
Emergency housing.....	☐	☐	☐	☐
Adult education.....	☐	☐	☐	☐
Encourage business and industry to move into the city.....	☐	☐	☐	☐
Maintenance and repair of water and sewer facilities.....	☐	☐	☐	☐
Innoculations and other disease prevention programs.....	☐	☐	☐	☐
Employment service.....	☐	☐	☐	☐
Snow removal.....	☐	☐	☐	☐
Building inspection for fire code compliance.....	☐	☐	☐	☐
Pollution control.....	☐	☐	☐	☐
Special education for children with learning problems.....	☐	☐	☐	☐
Welfare or other money programs.....	☐	☐	☐	☐

2. Considering the amount of money that is spent, how good a job do you think each of these services is doing to meet the needs of city residents?

	Very Good Job	Fairly Good Job	Fairly Bad Job	Very Bad Job
Elementary and high school education...	☐	☐	☐	☐
City health clinics.....	☐	☐	☐	☐
Free legal aid.....	☐	☐	☐	☐
Police patroling and other crime prevention work.....	☐	☐	☐	☐
Regular garbage pick-up.....	☐	☐	☐	☐
Public library.....	☐	☐	☐	☐
Fire fighting services.....	☐	☐	☐	☐
Running the city government.....	☐	☐	☐	☐
Vocational training.....	☐	☐	☐	☐
Food stamps or other food programs.....	☐	☐	☐	☐
Street and sidewalk repairs.....	☐	☐	☐	☐
Consumer protection.....	☐	☐	☐	☐
Support of bus service.....	☐	☐	☐	☐
Emergency medical service.....	☐	☐	☐	☐
Police crime investigation and enforcement of laws.....	☐	☐	☐	☐
Summer and after school programs for children.....	☐	☐	☐	☐
Construction of new roads, highways and bridges.....	☐	☐	☐	☐
Public parks.....	☐	☐	☐	☐
Emergency housing.....	☐	☐	☐	☐
Adult education.....	☐	☐	☐	☐
Encourage business and industry to move into the city.....	☐	☐	☐	☐
Maintenance and repair of water and sewer facilities.....	☐	☐	☐	☐
Innoculations and other disease prevention programs.....	☐	☐	☐	☐
Employment service.....	☐	☐	☐	☐
Snow removal.....	☐	☐	☐	☐
Building inspection for fire code compliance.....	☐	☐	☐	☐
Pollution control.....	☐	☐	☐	☐
Special education for children with learning problems.....	☐	☐	☐	☐
Welfare or other money programs.....	☐	☐	☐	☐

3. Which of these city services have you or other members of your family ever used?

	My Family Or I Have Used
Elementary and high school education	☐
City health clinics	☐
Free legal aid	☐
Garbage pick-up	☐
Public library	☐
Employment service	☐
Vocational training	☐
Food stamps or other food programs	☐
Consumer protection	☐
Bus service	☐
Emergency medical service	☐
Summer and after-school programs for children	☐
Public parks	☐
Emergency housing	☐
Adult education	☐
Innoculations and othe disease prevention programs	☐
Special education for children with learning problems	☐
Welfare or other money programs	☐

4. Do you agree or disagree with each of the following statements?

	Definitely Agree	Probably Agree	Probably Disagree	Definitely Disagree
This city has an honest government.....	☐	☐	☐	☐
People who pay rent pay as much tax indirectly as homeowners pay directly.....	☐	☐	☐	☐
The local government is doing too much for people.....	☐	☐	☐	☐
City employees are overpaid.....	☐	☐	☐	☐
The services I get are a good value for the taxes I pay.....	☐	☐	☐	☐
There are too many crooked politicians running this city.....	☐	☐	☐	☐
People should not have to pay taxes for city services they don't use.....	☐	☐	☐	☐
The city government should be providing even more welfare and social services than it does now.....	☐	☐	☐	☐
Too many of the city employees are getting graft.....	☐	☐	☐	☐
In general, this city makes good use of the tax money it raises.....	☐	☐	☐	☐
People who rent don't contribute as much to paying property taxes as homeowners.....	☐	☐	☐	☐
One reason city taxes are so high is that there are too many city employees.....	☐	☐	☐	☐
Everyone in the city should pay taxes even if they don't use the services provided.....	☐	☐	☐	☐
The city government usually gets at serious problems right away.....	☐	☐	☐	☐
City employees don't work as hard as people who work for private companies.....	☐	☐	☐	☐
The property tax is the best way for cities to raise money.....	☐	☐	☐	☐

5. How many years have you been living in Worcester? _____years

6. Do you own or rent the place where you live now?
   Own..... ☐
   Rent..... ☐

IF YOU OWN YOUR HOME:

7. What do you feel is the current value of your home? $_____

8. Would you say the city's valuation (appraisal) of your home for tax purposes is:
   Probably high..... ☐
   About right..... ☐
   Probably low..... ☐

IF YOU RENT:

9. How much rent to you pay each month? $_____

10. Have you ever owned your own home?
    Yes..... ☐
    No..... ☐

11a. Including yourself, how many people live in your household? _____

b. How many of these people are:
   --children less than 18 years old?..... _____
   --adults 18 years old or older?..... _____

12. What is your marital status?
    Single..... ☐
    Married..... ☐
    Widowed..... ☐
    Divorced..... ☐
    Separated... ☐

13. How old are you? _____ years

14a. How far did you go in school?
    Some or completed grade school, junior high or intermediate school (1 to 8 years)..... ☐
    Some high school (9 to 11 years).... ☐
    Completed high school (12 years).... ☐
    Some college..... ☐
    Completed college..... ☐
    Graduate or professional school..... ☐

b. Are you currently in school?
    Yes..... ☐
    No..... ☐

15. What is your current employment status?

- Employed, full time..... ☐
- Employed, part time..... ☐
- On strike..... ☐
- Laid off..... ☐
- Retired..... ☐
- Not employed..... ☐

16. What is your occupation?

- Professional..... ☐
- Management/executive.... ☐
- Own a small business.... ☐
- Salesman..... ☐
- Clerical..... ☐
- Truck driver, cab driver, bus driver or other operative..... ☐
- Construction worker..... ☐
- Factory worker..... ☐
- Machinist..... ☐
- Service..... ☐
- Military, police, fireman..... ☐
- Other_____ ☐ (Please Specify)

17. Do you work for the city of Worcester?

- Yes..... ☐
- No..... ☐

18. What was the income last year of all the members of your household, combined?

- Under $4,500..... ☐
- $4,500-$6,499..... ☐
- $6,500-$8,999..... ☐
- $9,000-$10,999..... ☐
- $11,000-$12,999..... ☐
- $13,000-$14,999..... ☐
- $15,000-$16,999..... ☐
- $17,000-$18,999..... ☐
- $19,000-$20,999..... ☐
- $21,000-$24,999..... ☐
- $25,000-$29,999..... ☐
- $30,000 and over..... ☐

THANK YOU VERY MUCH FOR YOUR COOPERATION.

The Graduate School and University Center
of the City University of New York

Ph.D. Program in Sociology
Graduate Center: 33 West 42 Street, New York, N.Y. 10036
212 790-4635

Dear Sir:

About a week ago I visited you at your home and left a questionnaire for you to fill out and mail back to me in the attached, stamped envelope. As I explained at that time, I am a student doing a study of how people in the city of Worcester feel about the taxes they pay and the services they receive, and how they would like to see the city of Worcester spend its money.

If you have already completed filling out the questionnaire and have mailed it back to me, thank you very much for your co-operation.

If you have not yet filled out the questionnaire, won't you please take a few moments to do so now. Your opinions on these matters are important.

Thank you for your
co-operation,

Julie Wilson

Julie Wilson
Student, Graduate Center
City University of New York

Appendix E

SAMPLE

Although the final study was conducted in Worcester, Massachusetts, a portion of the questionnaire was pre-tested in a different Massachusetts location in order to develop an effective set of attitude items and estimate the expected response rate.

One hundred questionnaires were hand delivered to residents in the Belmont, Cambridge and Watertown, Massachusetts area. While respondents were instructed that for the purposes of this study all questions were to be filled out by the male head-of-household, half the questionnaires were delivered to men and the other half were left with their wives or in the mail-box with a letter of explanation and instructions for completing the questionnaire. The purpose of this was to test the feasibility of delivering questionnaires at times when the male head-of-household might not be home.

In addition, half the questionnaires were delivered to renters and half to owners; and half were delivered to residents of high income areas and half to residents of low income areas. Because census data showing income level was not readily available on a small area basis for these cities, respondents of low income areas were selected from a sample of neighborhoods containing predominantly older, wooden, closely constructed two and three-family homes. Respondents from high income areas were selected from a sample of neighborhoods containing moderate to large single-family homes and luxury apartments and townhouses.

Table E-1 shows how the interviews were distributed among the cells.

Table E-1

PRE-TEST SAMPLE

	Interviews delivered to Males		Interviews delivered to Females	
	Home Owner	Renter	Home Owner	Renter
High Income	12	13	13	12
Low Income	13	12	12	13

The response rates--completing and returning the questionnaires--differed among the cells, as shown in Table E-2.

Since the final study was to be conducted among white male heads-of-household in Worcester, Massachusetts, the results of the pre-test indicated that questionnaires would have to be left directly with the person whose cooperation in completing the questionnaire was desired--the men themselves. On the basis of the pre-test results, a decision was made to deliver 400 questionnaires in anticipation of having at least 200 returned.

Questionnaires were delivered to a stratified random cluster (block) sample of Worcester residents. Strata were determined by ranking census tracts from high to low in terms of median household income, median male educational attainment and percent home owner. These three variables were chosen because they were to be major analytical variables in the study. Data for age, another salient variable, was not available on a head-of-household basis and therefore could not be used for ranking strata. The top quartile of tracts in each category was given a ranking of 1, the second quartile a ranking of 2, etc. Composite scores for each tract were computed, ranging from 3 to 12. At this time three census tracts were eliminated from the study--7321, 7312.02, and 7329.02--because they did not contain enough households. Two of these were college campuses and one was a large state hospital.

The tracts were divided into strata and given interview quotas as shown in Table E-3. A fourth tract--7320.01--was later eliminated when it was determined to contain only project housing inhabited by non-whites. The quota for this D tract was assigned to random blocks in two

Table E-2

PRE-TEST RESPONSE RATES

	Percent returning questionnaire
Total	42%
Delivered to males	54
Delivered to females	30
Owner	48
Renter	36
High income	48
Low income	36

Table E-3

DISTRIBUTION OF INTERVIEWS WITHIN STRATA

Strata	Composite Scores	Number of Tracts	Total No. of Interviews
A	3 - 4	9	100
B	5 - 7	9*	90
C	8 - 10	11*	110
D	11 - 12	9	100

* Imbalance because of sampling error.

D tracts, 7313 and 7324.

Within each census tract, five blocks were selected and a random starting point was determined for each block. The interviewer was given these five random starting points in each census tract, and instructed to go to the starting points in a certain order. If block one contained no households with male heads or did not contain enough to meet her quota, she was instructed to go to block two, etc. A quota ranging from 10 to 12 interviews was to be obtained from each tract, and this quota was to be gathered on at least two blocks. No more than six interviews were to be given out in any one block.

The interviewer proceeded from the starting point in a pre-determined pattern going from door-to-door until an eligible person was found. At that point, the purpose of the study was explained and the questionnaire, enclosed in an addressed, stamped envelope was given to the potential respondent. Then, one household was skipped, or if the transaction took place in a small apartment building, the remainder of the floor of apartments was skipped, before the interviewer resumed the door-to-door search for eligible respondents.

All the interviewing was done on week-day evenings or week-ends in order to maximize contact with male heads-of-households. The interviewing was conducted between January 22 and February 12, 1977. Table E-4 shows the records of interview delivery attempts.

If respondents had not returned the questionnaire within one week of delivery, letters reminding them of the questionnaire and encouraging them to send it back were mailed.

Table E-4

INTERVIEW DELIVERY ATTEMPT PATTERNS

	Total		Strata A		Strata B		Strata C		Strata D	
	N	%	N	%	N	%	N	%	N	%
Total	1306	100.0%	338	100.0%	284	100.0%	342	100.0%	342	100.0%
No one home	435	33.3	120	33.5	81	28.5	113	33.0	118	34.5
Eligible person not home	210	16.1	60	17.8	57	20.1	54	15.8	39	11.5
No eligible person	164	12.6	42	12.4	31	10.9	39	11.4	52	15.2
Refused	100	7.7	16	4.7	25	8.8	26	7.6	33	9.6
Took the interview	400	30.6	100	29.6	90	31.7	110	32.2	100	29.2

As Table E-5 indicates, the overall response rate varied from strata to strata, ranging from a high in strata A to a low in strata D. Two questionnaires were returned with the strata identification number effaced, so these could not be placed into strata. A total of 272 questionnaires were returned (68%) of which 247 (61.75%) were usable.

In every research project there are both known and unknown biases, and this study is no exception. In some cases, as in the case of the sampling procedure used in this study, these biases are not just known but are deliberately planned. This study was designed to maximize exploration of the relationship between municipal service delivery level choice behavior and specific variables considered important in influencing this behavior (e.g., age, income, homeownership, educational attainment, etc.). In order to do this, some groups were deliberately oversampled and others deliberately undersampled in an attempt to normalize these variables. This means that results from this study cannot be generalized to the City of Worcester.

In addition, there are unknown biases, most important of which is the non-response bias. Respondents of higher socio-economic status were more likely to return their questionnaires than were respondents of lower socio-economic status, as shown in Table E-5. These biases limit the interpretation of the data, although it is unknown to what extent this prevents generalization of the data altogether, not merely just to Worcester.

Table E-5

RESPONSE RATE

	Percent Returned	Percent Returned that were usable
Total	68.0%	61.8%
Strata A	75.0	73.0
Strata B	73.3	63.3
Strata C	65.5	60.0
Strata D	57.0	49.0

Appendix F

QUESTIONNAIRE EDITING AND RECONSTRUCTION OF MISSING DATA

After the questionnaires returned by Worcester residents were received, they were edited and those that were seriously incomplete were eliminated. A total of 25 questionnaires had to be eliminated from the study.

Many questionnaires that were retained were missing some data either through carelessness on the part of the respondent or an unwillingness on his part to reveal data. This latter reason was assumed to be the main reason for missing information on home value, rent, and income.

The data most commonly incorrect due to carelessness was the size of household. The most common mistake was made in giving a total number of household members that was larger than the composite of those under 18 and those 18 and older. In most cases it appeared that the respondent had neglected to include himself, or in some cases, himself and his spouse in the category 18 and older. In all cases except one the category 18 and older was changed to equal the total number minus the number of children under 18.

Missing data on house value and rent was reconstructed by taking the average house value or rent from the cluster in which the respondent resided.

In the three cases in which age was reconstructed, the variables used were age lived in Worcester, household composition, position in the labor force, occupation, education and salary level. Since it was

necessary only to place the person in the appropriate age category for most of the analysis, it was felt that these variables could aid in relatively accurate placement.

Where occupation was missing, educational level, income, and the occupations of others living in the cluster where the respondent resided were used to reconstruct this data. In almost all cases where this had to be reconstructed, the respondent was retired and the effort was made merely to classify the person into a general blue-collar/white-collar category.

Where income was missing, two procedures were used. Among retired respondents, the average income of all other retired respondents with similar occupational background and household size was inserted for the missing individual.

In cases where income figures were missing for someone currently working or out of the labor market for some reason other than retirement, the average income of all respondents with similar occupational backgrounds and household size in the cluster in which he resided was inserted into his questionnaire.

All cases where information was reconstructed, except household size, were coded so that the effects of this estimation procedure could be measured.

Table G-1

CHOICE FACTORS

	General Welfare Services	Capital Maintenance Services	Police Services	Federal Welfare Services	Fire Services	Education Services
Legal Aid	.73	-.06	-.06	.20	.07	-.02
Consumer Protection	.67	.21	.03	-.18	-.04	-.12
City Health Clinics	.65	-.13	-.05	-.01	.20	.09
Emergency Housing	.60	.08	.04	.20	.01	-.09
Pollution Control	.57	.12	.05	-.14	-.09	.10
Employment Service	.55	.12	.12	.05	-.01	.01
Summer & After School Programs	.51	.35	-.04	.05	-.01	.22
Innoculations	.51	.08	.10	-.03	-.01	-.05
Special Education	.50	.22	.10	.01	.31	.09
Adult Education	.50	.26	.03	.00	-.11	.25
Support of Bus Service	.44	.14	.10	.04	-.30	-.08
Emergency Medical Service	.40	.09	.23	-.13	.27	-.02
Street and Sidewalk Repair	.23	.62	-.06	-.02	-.02	.01
Water and Sewer Facilities	.26	.61	.13	.05	.02	.03
Snow Removal	.23	.52	.12	.09	.14	.06
Parks	.36	.50	-.07	-.08	-.00	.09
Building Inspection	.37	.42	.18	-.10	.20	.08
Police Crime Investigation	.22	.06	.82	-.03	.09	.01
Police Patrol and Crime Prevention	.16	.15	.70	-.00	.04	.04
Food Stamps	.52	-.03	-.06	.69	-.03	.06
Welfare	.50	-.04	-.05	.63	-.04	.05
Fire	.15	.35	.25	-.00	.59	.01
Elementary and High School Education	.30	.12	.01	.08	.10	.62
Public Library	.31	.24	.11	-.06	-.22	.44
Running City Government	.36	.16	.09	.12	-.18	.13
Vocational Training	.35	.29	.18	.03	.01	.06
Garbage Pick-up	.15	.20	.14	.05	.04	-.06
New Roads, Bridges and Highways	.07	.31	-.04	-.04	.07	.01
Encourage Business and Industry to move into City	.03	.28	.22	-.13	-.06	-.16

Table G-2

PAST USAGE OF MUNICIPAL SERVICES

	Family Members Have Used Services
Garbage pick-up	89.4%
Public library	85.0
Public parks	82.9
Elementary and high school education	80.1
Bus service	77.0
Adult education	39.4
Innoculations and other disease prevention programs	35.8
Employment service	34.6
Emergency medical service	34.6
Summer and after school programs for children	27.2
City health clinics	25.2
Vocational training	21.5
Food stamps or other food programs	15.0
Welfare or other money programs	11.4
Consumer protection	9.3
Special education for children with learning problems	6.5
Free legal aid	4.5
Emergency housing	1.2

Table G-3

PERCEIVED EFFICIENCY OF MUNICIPAL SERVICE DELIVERY

	Good Job was done for Money Spent			Bad Job was done for Money Spent			Don't
	Total	Very Good	Fairly Good	Total	Fairly Bad	Very Bad	Know
Fire fighting services	93.6%	62.8	30.8	4.4	2.4	2.0	2.0
Public library	93.5	42.5	51.0	3.6	3.2	0.4	2.8
Regular garbage pick-up	85.8	33.2	52.6	12.1	9.3	2.8	2.0
Adult education	83.0	25.1	57.9	10.5	8.5	2.0	6.5
Emergency medical service	81.4	15.0	66.4	13.4	7.3	6.1	5.3
Vocational training	79.0	15.4	63.6	15.7	11.7	4.0	5.3
Innoculations and other disease prevention programs	79.0	12.6	66.4	12.5	9.3	3.2	8.5
City health clinics	76.5	10.9	65.6	19.5	12.6	6.9	4.0
Maintenance and repair of water and sewer facilities	73.7	7.7	66.0	23.5	14.2	9.3	2.8
Special education for children with learning problems	73.3	17.0	56.3	19.9	12.6	7.3	6.9
Police crime investigation and enforcement of laws	66.8	14.2	52.6	30.8	18.2	12.6	2.4
Emergency housing	66.8	6.9	59.9	23.5	16.6	6.9	9.7
Summer and after school programs for children	66.4	10.9	55.5	28.8	21.9	6.9	4.9
Elementary and high school education	66.0	14.2	52.6	30.8	18.2	12.6	2.4
Police patrolling and other crime prevention work	65.9	12.1	53.8	32.0	22.3	9.7	2.0
Support of bus service	63.2	12.6	50.6	33.2	23.9	9.3	3.6
Free legal aid	61.9	10.1	51.8	28.3	19.8	8.5	9.7
Building inspection for fire code compliance	59.5	6.1	53.4	31.9	19.8	12.1	8.1
Pollution control	56.3	6.1	50.2	36.4	25.5	10.9	7.3
Consumer protection	53.5	4.9	48.6	37.6	25.9	11.7	8.9

Table G-3

PERCEIVED EFFICIENCY OF MUNICIPAL SERVICE DELIVERY (Continued)

	Good Job was done for Money Spent			Bad Job was done for Money Spent			Don't
	Total	Very Good	Fairly Good	Total	Fairly Bad	Very Bad	Know
Employment service	51.9%	5.7	46.2	39.3	23.1	16.2	8.9
Construction for new roads, bridges and highways	51.8	6.5	45.3	43.3	25.9	17.4	4.9
Public parks	50.2	7.3	42.9	46.1	27.5	18.6	3.6
Snow removal	49.0	7.7	41.3	49.4	24.7	24.7	1.6
Food stamps or other food programs	47.8	9.3	38.5	46.6	25.5	21.1	5.7
Welfare or other money programs	43.3	11.7	31.6	50.6	25.9	24.7	6.1
Street and sidewalk repair	35.2	2.4	32.8	62.3	34.4	27.9	2.4
Running the city government	32.7	4.0	28.7	63.9	27.9	36.0	3.2
Encourage business and industry to move into city	24.6	4.0	20.6	69.6	34.4	35.2	5.7

Table G-4

ATTITUDES TOWARD THE LOCAL GOVERNMENT

	Agree			Disagree		
	Total	Definitely	Probably	Total	Probably	Definitely
City employees don't work as hard as people who work for private companies	72.8%	50.8	22.0	27.3	17.1	10.2
Everyone in the city should pay taxes even if they don't use the services provided	67.6%	37.3	30.3	32.4	13.7	18.7
One reason city taxes are so high is that there are too many city employees	63.9%	35.3	28.6	35.7	23.7	12.0
People who pay rent pay as much tax indirectly as homeowners pay directly	55.3%	24.0	31.3	44.6	23.6	21.0
City employees are overpaid	52.1%	21.6	30.5	47.9	30.5	17.4
Too many of the city employees are getting graft	50.4%	21.6	28.8	49.6	33.9	15.7
There are too many crooked politicians running this city	48.9%	27.6	21.3	51.0	34.7	16.3
People who rent don't contribute as much to paying property taxes as homeowners	48.3%	21.8	26.5	52.7	26.5	25.2
This city has an honest government	43.6%	10.0	33.6	56.5	26.6	29.9
People should not have to pay taxes for city services they don't use	40.1%	26.9	13.2	59.9	31.8	28.1
In general, this city makes good use of the tax money it raises	32.7%	5.8	26.9	67.3	32.6	34.7
The services I get are a good value for the taxes I pay	31.5%	3.8	27.7	68.5	33.6	34.9
The local government is doing too much for people	28.2%	10.4	17.8	71.8	34.9	36.9
The property tax is the best way for cities to raise money	25.6%	5.8	19.8	74.4	28.5	45.9
The city government usually gets at serious problems right away	23.4%	4.2	19.2	76.5	32.6	43.9
The city government should be providing even more welfare and social services than it does now	13.9%	4.5	9.4	86.1	24.6	61.5

Table G-5

ATTITUDE FACTORS

	SERVAL	DISHON	CONTRI	MUNEMP	TAXPAY	TOMUCH	SSPROV	TXFORM
In general, this city makes good use of the tax money it raises	0.77	-0.23	0.05	-0.22	-0.13	0.01	-0.18	0.23
The services I get are a good value for the taxes I pay	0.71	-0.09	0.10	-0.17	-0.08	-0.06	0.19	-0.06
The city government usually gets at serious problems right away	0.59	-0.13	0.00	-0.06	0.05	0.20	0.03	0.11
There are too many crooked politicians running this city	-0.25	0.82	-0.00	0.05	0.12	-0.01	-0.05	0.11
Too many of the city employees are getting graft	-0.18	0.63	0.07	0.33	0.19	0.11	0.16	-0.13
This city has an honest government	0.49	-0.62	0.08	-0.08	-0.07	0.10	0.30	0.16
People who rent don't contribute as much to paying property taxes as homeowners	-0.01	0.04	-0.82	0.03	-0.04	-0.07	0.01	-0.07
People who rent pay as much tax indirectly as homeowners pay directly	0.13	0.05	0.75	0.13	0.03	0.09	-0.03	0.02
One reason city taxes are so high is that there are too many city employees	-0.08	0.08	-0.04	0.61	0.03	0.01	-0.06	0.10
City employees don't work as hard as people who work for private companies	-0.11	0.14	0.05	0.59	0.00	-0.09	-0.13	-0.09
City employees are overpaid	-0.17	0.00	0.08	0.55	0.02	-0.10	0.21	0.07
People should not have to pay taxes for city services they don't use	0.04	0.17	-0.05	0.17	0.77	0.15	-0.04	-0.03
Everyone in the city should pay taxes even if they don't use the services provided	0.15	-0.06	-0.09	0.07	-0.66	0.03	0.02	-0.04
The city government should be providing even more welfare and social services than it does now	0.14	0.01	0.16	-0.16	0.08	0.70	-0.06	0.09
The local government is doing too much for people	0.23	-0.08	-0.13	0.06	-0.16	-0.21	0.32	0.06
The property tax is the best way for cities to raise money	0.21	-0.03	0.08	0.07	0.02	0.07	0.03	0.63

Table G-6

CORRELATION OF DEMOGRAPHIC VARIABLES WITH ONE ANOTHER

	Home Ownership	Age	Education	Income
Tenancy**	-	-.3314*	-.1161*	-.3116*
Age		-	-.3127*	-.0972
Education			-	+.4100*
Income				-

* Denotes significance at .05 level.
** Tenancy is scored: Own = 1, rent = 2.

Table G-7

CORRELATION OF ATTITUDINAL CLUSTERS WITH ONE ANOTHER

	SERVAL	DISHON	MUNEMP	TXFORM	CONTRI	TAXPAY	TOMUCH	SSPROV
SERVAL	-	-.4084*	-.3015*	.2493*	-.1149*	-.1494*	.1193*	.2004*
DISHON		-	.2986*	-.0527	-.0256	.3126*	-.1330*	-.0062
MUNEMP			-	.0447	-.0509	.1181*	.0063	-.1894*
TXFORM				-	-.1169*	-.0168	.0608	.1270*
CONTRI					-	-.0259	.1172*	-.2104*
TAXPAY						-	-.1727*	.0544
TOMUCH							-	-.1868*
SSPROV								-

* Denotes significance at .05 level.

Table G-8

CORRELATION OF DEMOGRAPHIC CHARACTERISTICS WITH PERCEIVED EFFICIENCY OF SERVICE DELIVERY

	Perceived delivery efficiency of:					
	General Welfare Services	Federal Welfare Services	Capital Maintenance Services	Police Services	Fire Services	Education Services
Tenancy**	-.0936	.1317*	-.0954	-.0197	-.0462	.0224
Age	-.1693*	-.0245	-.2082*	-.0984	-.1411*	.0166
Income	.0438	.1661*	-.1038	.0862	.0266	.0361
Education	.0875	.0990	-.0864	.0572	.1954*	.0418

* Denotes significance at .05 level.
** Tenancy is scored: own = 1, rent = 2.

Table G-9

CORRELATION OF DEMOGRAPHIC CHARACTERISTICS WITH ATTITUDINAL CLUSTERS

	SERVAL	DISHON	MUNEMP	TXFORM	CONTRI	TAXPAY	TOMUCH	SSPROV
Tenancy**	.0705	.1001	-0.287	.0964	-.3953*	.1330*	-.2526*	.3249*
Age	-.1679*	.0445	-.0846	.1101*	-.1651*	.0521	-.2267*	.0418
Income	.1024	.1606*	.0249	.1523*	-.0891	.1583*	-.0647	.3550*
Education	.0177	.2597*	.0794	.1408*	.0068	.2828*	.0131	.1308*

* Denotes significance at 0.5 level
** Tenancy is scored: own = 1, rent = 2.

Table G-10

CORRELATION OF SERVICE USAGE WITH PERCEPTIONS OF SERVICE DELIVERY EFFICIENCY

	Correlation of Service Usage with Service Delivery Efficiency
General Welfare Services	.0110
Federal Welfare Services	-.0229
Education Services	.1012

Note: Positive correlation indicates degree to which having used the service is related to perceiving it to be efficiently delivered.

Table G-11

CORRELATION OF SERVICE USAGE WITH ATTITUDINAL CLUSTERS

	SERVAL (A)	DISHON (B)	MUNEMP (C)	TXFORM (D)	CONTRI (E)	TAXPAY (F)	TOMUCH (G)	SSPROV (H)
General Welfare Services	.0579	-.0170	-.0613	.0642	-.1182*	-.0209	.0123	.1858*
Federal Welfare Services	-.0109	.0487	-.0933	.0908	-.2101*	.1268*	-.1081	.3923*
Educational Services	.0613	-.0585	-.1356*	.0835	-.0086	-.0741	.0283	.0188

* Denotes significance at .05 level

Note: Positive correlation indicates having used the service is related to belief that:

(A) The city makes poor use of its tax money.
(B) City employees are honest.
(C) City employees are diligent.
(D) The property tax is not the best way for the city to raise money.
(E) Renters pay as much in taxes as owners.
(F) Citizens should pay only for the services they use.
(G) The local government does not do too much for people.
(H) The city government should not be providing more welfare and other social services than it does now.

Table G-12

CORRELATION OF SERVICE DELIVERY EFFICIENCY PERCEPTIONS WITH ATTITUDINAL CLUSTERS

Perceived efficiency of:	SERVAL (A)	DISHON (B)	MUNEMP (C)	TXFORM (D)	CONTRI (E)	TAXPAY (F)	TOMUCH (G)	SSPROV (H)
General Welfare Services	.3742*	-.1169*	-.1139*	.1634*	.0719	-.2117*	.0975	.0185
Federal Welfare Services	.2242*	-.0803	-.1598*	.1477*	-.0962	-.0135	-.1528*	.2643*
Capital Maintenance Services	.3895*	-.3021*	-.1315*	.0520	.0553	-.2048*	.1749*	-.0275
Police Services	.2905*	-.1420*	-.1168*	.0999	-.0372	-.0975	.0303	.0976
Fire Services	.0827	-.0355	-.0747	.0524	.0103	-.0738	-.0541	.0166
Education Services	.2917*	-.0640	-.1020	.1129*	-.0268	-.1278*	-.1214*	.1165*

* Denotes significance at .05 level

Note: Positive correlation indicates perceived inefficiency is correlated with belief that:

(A) The city makes poor use of its tax money.
(B) City employees are honest.
(C) City employees are diligent.
(D) The property tax is not the best way for the city to raise money.
(E) Renters pay as much in taxes as owners.
(F) Citizens should pay only for the services they use.
(G) The local government does not do too much for people.
(H) The city government should not be providing more welfare and other social services than it does now.

Table G-13

INFLUENCE OF VARIABLES EXPLORED ON DELIVERY LEVEL CHOICES FOR UNCLUSTERED SERVICES

	Regular Garbage Pick-up	Running the City Government	Vocational Training	Construction of New Roads, Bridges and Highways	Public Parks	Encourage Business and Industry to move into the city	Building Inspection for Fire Code Compliance
INTERCEPT	2.950	3.435	3.250	2.618	2.707	3.413	2.499
OWNSHP	.061	-.045	.088	.038	-.068	.061	-.007
	(.062)	(-.084)	(.138)	(.078)	(-.112)	(.087)	(-.011)
AGE	.138	.010	.053	.108	-.044	.168*	-.121
	(.041)	(.006)	(.025)	(.066)	(-.022)	(.071)	(-.053)
INCOME	-.051	-.065	-.017	.036	-.054	.029	-.051
	(-.008)	(-.019)	(-.004)	(.012)	(-.014)	(.007)	(-.012)
EDUC	-.103	-.085	-.044	.005	-.018	.010	-.135
	(-.033)	(-.051)	(-.022)	(.003)	(-.010)	(.004)	(-.063)
USED	-.068	NA	-.209*	NA	-.094	NA	NA
	(-.094)		(-.384)		(-.195)		
EFF	.217*	-.263*	.004	.160*	.132*	.214*	.193*
	(.150)	(-.267)	(.005)	(.192)	(.123)	(.176)	(.181)
SERVAL	-.049	-.089	.040	-.120	-.012	-.191*	-.004
	(-.001)	(-.038)	(.014)	(-.056)	(-.004)	(-.062)	(-.001)
DISHON	.050	.081	.086	.057	.007	-.047	.126
	(.014)	(.042)	(.037)	(.032)	(.035)	(-.018)	(.051)
MUNEMP	.099	.045	.005	-.013	.210*	-.068	.165*
	(.022)	(.018)	(.002)	(-.006)	(.076)	(-.021)	(.053)
TXFORM	-.040	.053	-.125	-.115	-.067	.011	.039
	(-.021)	(.052)	(-.104)	(-.125)	(-.059)	(.009)	(.030)
CONTRI	-.100	-.065	.072	-.060	-.135	-.045	-.054
	(-.026)	(-.032)	(.029)	(-.032)	(-.059)	(-.017)	(-.021)
TAXPAY	-.003	.016	.027	-.140*	-.021	-.086	-.065
	(-.001)	(.008)	(.011)	(-.077)	(-.009)	(-.033)	(-.025)
TOMUCH	.028	.047	.195*	.115	.124	.062	.086
	(.014)	(.044)	(.154)	(.120)	(.104)	(.045)	(.064)
SSPROV	-.028	-.119	-.081	.012	.016	.099	.015
	(-.017)	(-.131)	(-.074)	(.014)	(-.015)	(.083)	(.013)
R^2	.121	.197	.121	.090	.115	.119	.127

Note: Unstandardized regression coefficients in parentheses.
* Denotes significance at .05 level.
NA = Not Asked.

Table G-14

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Tenancy	
Own	60.3%
Rent	39.7
Household size	
One person	5.7%
Two people	32.8
Three people	16.6
Four people	20.6
Five people	3.0
Six or more people	11.3
Marital status	
Married	80.6%
Single	14.6
Widowed	2.4
Divorced, separated	2.4
Age	
Under 20 years old	0.4%
20 to 29 years old	23.2
30 to 39 years old	18.4
40 to 49 years old	13.2
50 to 59 years old	18.4
60 to 69 years old	17.6
70 or more years old	7.6
Education	
1 to 8 years	9.7%
9 to 11 years	12.6
12 years	23.9
Some college	21.1
Completed college	12.1
Graduate or professional school	17.4
Vocational school	3.2
Currently in school	
Yes	10.2%
No	89.4
Refused	0.4

Table G-14

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

(continued)

Employment status		
Employed, full time	66.3%	
Employed, part time	6.1	
On strike	--	
Laid off	2.8	
Retired	19.1	
Not employed	5.7	
City employee		
Yes	6.5%	
No	91.1	
Refused	1.6	
Occupation		
Professional	25.1%	
Management/executive	11.1	
Own a small business	7.0	54.7%
Salesman	2.5	
Clerical	4.5	
Other white collar	4.5	
Truck driver, cab driver, bus driver or other operative	2.1	
Construction worker	3.7	
Factory worker	4.9	
Machinist	9.5	41.1%
Service	8.2	
Police, fireman, military	4.1	
Other blue collar	8.6	
Income		
Under $4,500	8.1%	
$4,500-$6,499	7.3	
$6,500-$8,999	7.7	
$9,000-$10,999	6.1	
$11,000-$12,999	10.5	
$13,000-$14,999	8.5	
$15,000-$16,999	11.3	
$17,000-$18,999	10.5	
$19,000-$20,999	10.5	
$21,000-$24,999	10.1	
$25,000-$29,000	1.2	
$30,000 and over	6.9	
Refused	1.2	
Median Income	$15,211	

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