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Continuity and change in municipal budgetary choice : a comparative study of two cities.

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CONTINUITY AND CHANGE
IN
MUNICIPAL BUDGETARY CHOICE:
A COMPARATIVE STUDY OF TWO CITIES

A Dissertation Presented

By

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ABSTRACT

Continuity and Change in Municipal Budgetary Choice:

A Comparative Study of Two Cities

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The primary purpose of this dissertation is to develop and test new operationalized definitions for the concepts of incremental and non-incremental budgetary decisions. Previous definitions have been quite rigid and simplistic. Thus, the ultimate proof of the validity of incremental budgeting models, viz. that incremental systems result in a predominance of incremental decisions, has not been adequately demonstrated.

In order to resolve this dilemma, two independent sets of operationalized definitions are developed. The first, a quantitative indicator labelled the Ratio of Shares, is based upon the notion of budgetary "fair shares." Patterned on the shift-share analysis used in regional economics, this technique provides a model of an ideal incremental decision. In turn, actual Ratio of Shares values may be compared to this ideal value. Thus, to the extent that actual values vary from the ideal value, evidence is obtained that an actual decision varies from an ideal incremental decision. A measure of dispersion

(standard deviation units) is then used to separate probable incremental decisions from non-incremental ones.

The second set of definitions is based upon interviews with individuals who have been directly involved in the making of specific budgetary decisions. Labelled the "typical choice" approach, this technique involves asking public officials a series of questions in which they define how budgetary decisions are typically made. Following this series, they are then asked whether a specific decision with which they were involved was made in a typical or atypical fashion. On the whole, it is found that typical decisions appear to correspond to incremental choices, while atypical decisions correspond to non-incremental ones.

Using budget data from two Massachusetts cities, these two sets of operationalized definitions are then compared, with the finding that they generate high levels of agreement in their classifications of specific decisions. Moreover, incremental decisions are found to occur more frequently than non-incremental ones. However, non-incremental choice appears to occur much more frequently than is often presumed. Reasons for both incremental and non-incremental decisions are analyzed with the conclusion that non-incremental decisions generally occur due to factors external to the decision-making hierarchy's control.

Finally, a variety of other operationalized definitions (such as those suggested by Wildavsky and Fenno) are compared to the typical

choice approach, and the resulting levels of agreement are compared to the level of agreement found for the Ratio of Shares indicator. The results of these comparisons are that the Ratio of Shares technique and the approach suggested by Fenno appear to be the most reliable of the quantitative classifiers. However, given the exploratory nature of this study, the need for further research is recognized.

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CHAPTER I

BUDGETARY CHOICE: THEORIES AND METHODOLOGIES

Introduction

With more than 70 percent of all funds for domestic programs being expended by state and local governments,[1] with the critical mass of our nation's social problems located in our urban centers,[2] and in view of the recent efforts to decentralize policy-making and expenditure decisions down to those levels of government proclaimed "closer to the people,"[3] the need for a close, in-depth analysis of municipal budgetary choice seems evident. It is the goal of this thesis to explore the utility of a new research design through which to accomplish such an analysis.

A Review of Current Theories of Budgetary Choice

In recent years, the study of government budgeting has been dominated by the model of budgetary incrementalism. Derived from

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[1]Douglas Fox, The Politics of City and State Bureaucracy, Pacific Palisades, Calif.: Goodyear Publishing Co., Inc., 1974), p. 3.

[2]For an excellent, brief survey of the "urban crisis" and its causes, see Robert Lineberry and Ira Sharkansy, Urban Politics and Public Policy (New York: Harper and Row, 1971), Chapter 2.

[3]Examples of the literature examining this trend include Herbert Kaufman's excellent "Administrative Decentralization and Political Power," Public Administration Review 29 (January/February 1969):3-15; Michael Reagan, The New Federalism (New York: Oxford University Press, 1972), especially "The Case Against Revenue-Sharing," pp. 102-132; and of recent appearance, Richard P. Nathan's fascinating The Plot That Failed: Nixon and the Administrative Presidency (New York: John Wiley and Sons, Inc., 1975), especially Chapter 2 passim.

Lindblom's model of incremental policy choice,[4] the application of incremental decision making to budgeting has been most fully elaborated in Aaron Wildavsky's The Politics of the Budgetary Process (1964).[5] Where Lindblom saw policymakers making limited, marginal changes in on-going policies, Wildavsky envisioned budget-makers choosing to add or subtract a limited, marginal fair share of the total of available new revenues to a funding base (i.e., the previous year's total funding).[6]

There have been two basic methodological approaches used to support the model of incremental budgeting. One group of studies has employed role analysis and interviews to establish the general, repetitive actions which appear to underpin much budgetary choice. Notable works on incremental role systems include the Wildavsky study cited above, Thomas Anton's The Politics of State Expenditure in Illinois (1966),[7] and, to some extent, John Patrick Crecine's Governmental Problem Solving: A Computer Simulation of Municipal Budgeting (1969).[8]

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[4]Charles E. Lindblom, "The Science of 'Muddling Through'," Public Administration Review 19 (Spring 1959):79-88.

[5]Aaron Wildavsky, The Politics of the Budgetary Process, 2nd ed. (Boston: Little, Brown and Co., 1974).

[6]Ibid., pp. 16-17.

[7]Thomas J. Anton, The Politics of State Expenditure in Illinois (Urbana, Ill.: University of Illinois Press, 1966).

[8]John P. Crecine, Governmental Problem-Solving: A Computer Simulation of Municipal Budgeting (Chicago: Rand McNally and Co., 1960).

The thrust of such works has been that different categories of formal actors within the budgetary process tend to behave in patterns that constitute limited, socialized sets of behavior. These behavior sets mutually reinforce each other; and the acting out of these behaviors provides the individual with psychological satisfactions which further reinforces his predispositions to continue to behave in the accepted fashion.[9] As Crecine, Sharkansky, and Jackson note, a major implication of this model is that spending decisions are seen more as a function of self-contained, largely insulated decisions within government than the result of pressures and inputs brought to bear on government by external events and actors.[10]

Another central point of the descriptive incrementalists is that budgetary choice primarily involves questions concerning the size of the annual "fair share" as opposed to questions concerning the size of the funding base. As Wildavsky notes, the base ". . . is almost never actively reviewed as a whole every year . . . . (Budgeting) is based on last year's budget with special attention given to a narrow range of increases or decreases."[11]

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[9]For a classic presentation of role system theory, see Talcott Parsons and David A. Shils, eds., Toward A Theory of General Action (New York: Harper and Row, 1951), pp. 3-29.

[10]Crecine, Governmental Problems, p. 20 and pp. 218-219; Ira Sharkansky, Spending in the American States (Chicago: Rand McNally and Company, 1968), p. 17; John E. Jackson, "Politics and the Budgetary Process," Social Science Research 1 (April 1972):42.

[11]Wildavsky, Politics, p. 15.

The second approach used to study incremental budgeting has relied on the quantitative analysis of budget data. Works by Otto Davis, M.A.H. Dempster, and Wildavsky,[12] by Ira Sharkansky,[13] and by Crecine[14] have used correlation and regression analysis to establish the degree of relationship between budget recommendations at one stage of the process to another within a given year, and between budgets of one year and budgets of the next and succeeding years. The great majority of the simple and multiple coefficients of correlation which have been generated in these studies exceed the .9000 level.

Initially, these descriptive and quantitative studies seemed so convincing that even critics of pluralist politics accepted the validity of the theory.[15] It is not entirely facetious to claim that a "Pax Lindblomica" has reigned over the study of budgeting since the early 1960's.

Of course, a few dissenting works have appeared. In a case study of budgeting in Cleveland, Ohio, John E. Jackson argued that budgeting in municipalities involves not only incremental routines, but also responses to external events (e.g., annual shifts in the

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[12]Otto Davis, M.A. Dempster, and Aaron Wildavsky, "A Theory of the Budgetary Process," American Political Science Review 60 (September 1966):529-547.

[13]Ira Sharkansky, Spending in the States.

[14]Crecine, Governmental Problem-Solving.

[15]E.g., see Allen Schick, "Systems Politics and Systems Budgeting," Public Administration Review 29 (March/April 1969):137-151; and James O'Connor, The Fiscal Crisis of the State (New York: St. Martin's Press, Inc., 1973), pp. 76-77.

number of robberies, changes in the number of families) and inputs from political factors as well (e.g., a mayor's electoral plurality, changes in chief executives). Utilizing a multiple regression model, Jackson concludes that, while "in the short run . . . this expenditure process would exhibit all the bureaucratic characteristics reported by Crecine . . .," nevertheless over time (1945-1970), ". . . the results implied by the significant and nearly significant coefficients are quite consistent with the economic-determinants model and the hypothesis about administration differences expounded here."[16]

Unfortunately, Jackson's study is marred by his overreliance upon interval-scale variables which are of questionable importance or comprehensibility in explaining the budget shifts he identifies. Moreover, his study focuses on expenditures only for "major services." As a result, his investigation focuses only upon some of the expenditures for some of the city's agencies. The proportion of the total budget left unexamined is not indicated. Finally, Jackson ignores the question of whether the different services studied received either incremental or non-incremental shifts as a result of his environmental or political variables. All that is established (and tenuously at that) is that different services fare differently under different administrations in terms of their annual growth rates.

Focusing on federal budgeting, O. E. Williamson used the statistical results of Davis, Dempster, and Wildavsky on non-defense budgeting

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[16]Jackson, "Budgetary Process," p. 45.

to argue, similarly to Jackson, that changes in chief executives often meant significant changes in the rates of budgetary growth or decline for major agency budgets.[17] Turning his sights upon defense spending, Arnold Kantor has maintained that the efforts of Congress and its appropriations committees have been both fiscal and programmatic in nature.[18] In essence, both Williamson and Kantor (and Jackson as well) challenge the non-rational, routinized role descriptions provided by Wildavsky and others. Unfortunately, their desire to reestablish a place for politics or for rationality in budgeting does not lead them to challenge whether the choices being made by the process are incremental or not. Simplifying the question, their debate might be described as one between advocates of a rational, incremental decision process vs. advocates of a mechanistic, non-programmatic one.

In 1973 a major attack upon the explanatory adequacy of incrementalism per se was launched with the publication of Peter Natchez and Irvin C. Bupp's "Policy and Priority in the Budgetary Process."[19] To date, it appears to have generated little interest among scholars

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[17] O. E. Williamson, "A Rational Theory of the Federal Budgetary Process," Papers on Non-Market Decision Making 2(1967):71-90.

[18] Arnold Kantor, "Congress and the Defense Budget: 1960-1970," American Political Science Review 66(March 1972):129-143.

[19] Peter Natchez and Irvin C. Bupp, "Policy and Priority in the Budgetary Process," American Political Science Review 67(September 1973):951-963.

beyond (at most) some discussion as to how its findings might be incorporated into the incremental model.[20]

In brief, the two authors charge that the incrementalists are guilty of overemphasizing budgeting at the agency level of choice in their quantitative research. Accordingly, all the incrementalists accomplish is to ". . . capture--quite accurately-- . . . the great stability of the administrative structure of government . . . ."[21] According to Natchez and Bupp, a more realistic understanding of budgetary decision making is obtained by focusing on budgeting at the program level, i.e., at the level of the various activities and services which are carried out within the agency.

Natchez and Bupp develop an hypothesis that budgeting at the program level tends to exhibit a highly variable pattern in which competition for scarce resources and non-incremental decisions are common. Using a quantitative technique which they label a prosperity score, they offer support for their hypothesis by an examination of twenty-three programs within the Atomic Energy Commission over a fifteen year period. The results of their data manipulation appear to support their hypothesis. Although funding for the AEC (the agency) grew marginally

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[20] In some recent budgetary literature, John J. Bailey and Robert J. O'Connor mention it in a footnote; see their "Operationalizing Incrementalism: Measuring the Muddles," Public Administration Review 35 (January/February 1975):66; John Wanat does not mention it, see his "Bases of Budgetary Incrementalism," American Political Science Review (September 1974):1221-1228; and William Morrow attempts to synthesize it with incrementalism; see his Public Administration: Politics and the Political System (New York: Random House, 1975), pp. 220-222.

[21] Natchez and Bupp, "Policy Priority," p. 955.

during the fifteen year period, they found that five of the twenty-three programs within it "were cancelled altogether" and that funding for most of the other programs apparently "fluctuated widely."[22]

As an explanation of their findings, Natchez and Bupp present an alternative theory of budgeting entitled the "policy entrepreneur" model. They suggest that the reason program-level budgets appear to fluctuate so greatly from year to year is due primarily to the political salesmanship of program executives. While "programs . . . supported at the Commission, the Office of Management and Budget, presidential and congressional levels are prosperous . . .," the chief determinant of a program's prosperity are ". . . energetic division directors (who) successfully build political support to withstand continuous attacks upon a program's resource base by competing claims."[23] In short, budgeting for programs is ". . . very much like the competitive ideal in nineteenth century capitalism."

> In their quest for funding and political authority, (policy entrepreneurs) use every available weapon: pressure from various constituencies and groups, aggressive selling inside government, attracting congressmen as innovators or as protectors . . ., pressuring the White House as well as receiving pressure from the White House, and so on . . . .[24]

In light of this research and that of the other dissenters, the degree to which the dominant model of budgetary incrementalism provides an adequate explanation of budgetary decision making is under serious

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[22] Ibid., pp. 960-962.

[23] Ibid., p. 963.

[24] Ibid., p. 956.

question. Accordingly, an exploration of budgeting at the municipal level will be undertaken here in an effort to establish a more comprehensive understanding of budgetary choice.

A Critique of Major Methodologies in the Study of Budgeting

The first task following the decision to seek a more comprehensive model of budgeting was to create a research design through which a more accurate picture of budgeting could be obtained. As a step toward this end, an analysis of the major established approaches was undertaken.

Several objections can be noted concerning the manner in which role analysis has been employed by the incrementalists. First, such studies almost exclusively focus upon establishing general (or typical) behavior patterns of actors in the budgetary process. Little attention has been paid to non-general (or atypical or deviant) behavior. If the extent of such non-general behavior were insignificant, such an approach might be warranted. However, whether to exclude such behavior from analysis is in fact warranted has not been satisfactorily established.

Some of these authors have, of course, attempted to ascertain the relative frequencies of incremental vs. non-incremental decisions. One often used device has been to set forth a percent annual funding change which separates the two categories of choice. Thus for example, Wildavsky argues that an annual funding change (afc) of more than ±30

percent constitutes a non-incremental choice,[25] while Fenno has claimed that an afc of ±20 percent or more is the true dividing line.[26] While such an approach poses several problems, its most crucial weakness is that it divorces budgetary choice from how decision makers are distributing the total of available "new" revenues in any given year. Accordingly, whether the annual budget choices being made reflect "fair" or "unfair shares" added to agency bases becomes obscured. More elaboration on this point will be presented later.

A further criticism of the role analysis authors is that they have uniformly violated a central rule of scientific inquiry: viz., that the validity of general hypotheses should be tested by their ability to explain, at the least, a scientifically chosen sample of specific cases. Even within the context of their own flawed quantitative approach, Wildavsky, Fenno, and others[27] have failed to follow their investigations through to such a test.

One objection to this last criticism might be that it fails to take into account the quantitative studies of incrementalism which have relied upon correlation and regression analysis of annual expenditure

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[25]Wildavsky, Politics, p. 14.

[26]Richard Fenno, The Power of the Purse (Boston: Little, Brown and Company, 1966), p. 352.

[27]E.g., Bailey and O'Connor who see budget changes of ±10 percent or less as incremental, ±11 percent to 29 percent as "intermediate," and ±30 percent or more as non-incremental; see "Measuring the Muddles," p. 64.

levels.[28] Such studies have been widely viewed as conclusive evidence (or tests) that budgetary choice is indeed a form of incremental choice.

Unfortunately, it has been less than widely noted that the quantitative incrementalists have a different focus for their research than the role system incrementalists. The quantifiers have concentrated upon the funding base of government agencies whereas the role analysts have concentrated upon the question of "fair shares." The use of agency funding bases as a unit of analysis results in three serious weaknesses in the research of the quantitative incrementalists.

First, as Natchez and Bupp note, these works (and, less explicitly, those of the role analysts as well) ignore an important, perhaps crucial arena of budgetary choice: viz., budgeting for the programs which comprise agency budgets. Do program-level budgets shift greatly from year to year, while agency budgets shift only marginally? If so, why? Such questions have not been explored by the quantitative incrementalists, nor can they be explored by focusing exclusively upon total agency budgets. Since agency budgets are often the aggregated sums of identifiable programmatic components, it seems advisable, if not

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[28] For example, see Davis, Dempster, and Wildavsky, "A Theory of the Budgetary Process"; their "On the Process of Budgeting II: An Empirical Study of Congressional Appropriations," in R.F. Byrne, A. Charnes, W.W. Cooper, O.A. Davis, and Dorothy Gilford (eds.), Studies in Budgeting (New York: North-Holland Publishing Company, 1971), pp. 292-375; and their "Toward a Predictive Theory of Government Expenditures: U.S. Domestic Appropriations," British Journal of Political Science 4(October 1974):419-452; Wanat, "Bases of Budgetary Incrementalism"; Crecine, Governmental Problem-Solving; and Sharkansky, Spending in the States.

essential, that program-level choices be studied when seeking to establish a general theory of budgetary choice.

A second criticism of this literature involves its utilization of agency budget bases in correlation and regression analysis. As noted earlier, Natchez and Bupp charge that such analysis unavoidably reflects the ". . . massive stability of the administrative structure of government."[29] Phrased less eloquently, the problem here is that the budget figures whether for agencies or programs tend to be skewed. Relatively large agencies with larger budgets tend to persist in retaining larger budgets over time whereas relatively smaller agencies persist in exhibiting relatively smaller budgets over time.

Accordingly, the correlation analyses of the incrementalists heavily reflects the rank order (or "weight") of the funding bases of the agencies they are observing. Lost is any meaningful investigation of the annual funding changes (or "fair shares") of these agencies. Figure 1 illustrates this problem. Despite the fact that two of the hypothetical programs undergo an annual funding change which the descriptive incrementalists would view as non-incremental (Programs A and B), while a third declines to a degree some would see as a non-incremental choice (Program C), the simple coefficient of correlation remains extremely high.

Admittedly, it is impossible to claim that the agency budgets reviewed by the quantitative incrementalists do not in fact exhibit a

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[29] Natchez and Bupp, "Policy Priority," p. 955.

	Year T	Year T + 1	Annual Funding Changes
Agency A	$ 10	$ 14	40%
Agency B	$ 20	$ 28	40%
Agency C	$ 30	$ 24	-20%
Agency D	$ 40	$ 42	5%
Agency E	$ 50	$ 57	14%
Total Budget	$150	$165	10%

N = 5

$r = .94323$

$r^2 = .88968$

Figure 1. An Hypothetical Illustration of How the Weights of Agency Funding Bases Can Obscure the Nature of Choices being made as Reflected by the Magnitude of the Annual Funding Shifts for Individual Agencies

pattern of incremental choice. However, on the basis of their work, it is quite difficult to conclude that incremental decisions were necessarily being made. All that has been demonstrated is that the funding bases of agencies do not greatly shift from year to year in terms of their relative magnitude.

Finally, the third criticism of the statistical incrementalists is that their focus upon total agency budgets ignores the fact that the descriptive incrementalists have persuasively demonstrated that budgetary decisions generally involve issues and questions concerning the annual funding change to be added or cut from a total funding

base.[30] As a result, in addition to their other problems, the statistical incrementalists have undermined the explanatory utility of their research by employing a unit of analysis (i.e., total budgets) which does not accurately reflect the focus of the decision process (i.e., the annual funding change rates) which they are investigating.

Serious problems have also been uncovered in the Natchez and Bupp approach to budgeting. In its current state of development, it is impossible to determine whether or not the policy entrepreneur model has any relevance in explaining budget choice. Natchez and Bupp present it in merely hypothetical, speculative terms and do not support it with empirical evidence through interview or other sources. Nonetheless, in light of the questions raised by Natchez and Bupp, some effort will be made here to explore the influence of program heads in the decision making process.

A second criticism of Natchez and Bupp concerns their quantitative methodology, the statistical indicator entitled the prosperity score. A formula for deriving this statistic is presented in Figure 2.

The prosperity score provides a standardized figure which shows the ratio of a program's proportion of an agency budget in any specified year to the averaged proportion of the agency's budget which the program

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[30] E.g., see Wildavsky, Politics, p. 15 and p. 60; Anton, Expenditure in Illinois, pp. 34-36 and pp. 100-101; and Fenno, Purse, pp. 318-319. A recent quantitative research piece offers further support on this point. See Wanat, "Bases of Incrementalism," pp. 1225-1226.

$$\text{Prosperity Score} = \frac{1}{\bar{p}} \cdot \frac{P_{it}}{\Sigma P_{it}} \cdot 100$$

where P = a program's budget

i = a program

t = time expressed as a year

P_{it} = the budget for any given program in any given year

ΣP_{it} = the total agency budget in any year

$\bar{p}$ = the mean proportion a program represents of an agency's budget over all years under consideration

Figure 2. Natchez and Bupp's Prosperity Score

constitutes over an entire set of years. At best, it provides a very blurry analytic window through which to view budgetary choice.

Basically, the problems of the prosperity score arise from using funding bases as a unit of analysis and an averaged proportion as a denominator. As with the statistical incrementalists, the use of funding bases in the numerator of the formula necessarily makes their statistic an indirect approach by which to study budget choices. As noted, budgetary decision makers appear to view budget choices in terms of the amount which should be added to or cut from a budget. Assuming the descriptive incrementalists are correct on this score, then it follows that the statistical approach used to explore budgetary choice should (and can) more directly reflect this fact; i.e., the formula should be based upon annual rates of change in budgeting, not upon total budgets.

Concerning Natchez and Bupp's denominator, which is composed of the proportion of a program's funding to an agency's funding averaged over an entire set of years, the obvious criticism is that such a denominator results in the loss of information, information which may well be of considerable value. In tests of the prosperity score, it was found that it established only the extent to which an annual proportion of a program's base to its agency budget fell above or below the average proportion of those two items over time. In other words, the apparent pattern of annual growth or decline of budget items was a pattern of growth or decline related to the mean proportion, not to the actual annual growth rates of either the program's or agency's base funding.

In concrete terms, this means that a prosperity score of 88.0 signifies only that the proportion of a program's base to the agency's base was 88 percent of the averaged proportion of these two values over a set of years. This might signify that the program suffered a cut in that year or it might signify that the program's funding base simply grew more slowly than the agency's base. Relying on the prosperity score, it is impossible to determine which was the case. Moreover, it is also impossible to determine either the size of the program's or agency's shift or to obtain any direct sense of the relationship between these two values for a given year. In short, the prosperity score removed the quantitative study of budgeting from the direct observation of annual choice, plus made the actual annual patterns of budgetary growth or decline quite obscure.

Towards a New Research Design

Issues to be considered. In light of the above cited problems of the literature on budgetary decision making, several issues were derived which must be taken into account when constructing an adequate research design for the empirical study of budgeting.

First, the design should include an investigation of budgeting at both the agency and program levels of choice.

Second, the quantitative methodology employed should be directly focused upon annual choice patterns. If possible, it should provide a tentatively reliable indicator as to whether incremental or non-incremental decision making is occurring, to include some notion of the extent to which such types of choice are being made.

Third, interviews with formal actors should be conducted to determine not only general attitudes and behavior patterns common to budgeting, but also the attitudes and behaviors brought to bear on specific decisions.

Fourth, the specific decisions explored should be scientifically chosen random samples of the different types of decisions which the quantitative analysis indicates are being made. This will serve to insure the consistent focus between the quantitative and interview analyses. In addition, it should also provide evidence on the extent to which general attitudes and behavior patterns are reflected in specific, concrete choices, as well as evidence concerning the types of factors and variables which influence or determine specific decisions.

The research design. Bearing these points in mind, the following research design has been constructed and implemented:

Step 1. First, municipal budget data for a ten-year period has been obtained from two municipalities of similar size, but with different types of executive-legislative structures. The data base has been limited in this fashion because of both limited resources and the exploratory nature of this work.

The two cities chosen are highly typical of the moderate-to-large sized central cities found in the Northeastern United States.[31] Compared to similar-sized cities in this region, both are relatively old, exhibit low growth rates, possess relatively large ethnic populations, and have an established but declining manufacturing and industrial economic base.[32] One is atypical of the region in that it possesses a manager-council form of government. However, for all cities nationwide in the population range of these two cities, the percentage possessing manager-council vs. mayor-council structures is roughly the same.[33]

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[31] In order to maximize frankness in the interviews, the author has promised not to reveal either the names of the cities, nor of individuals during the course of this work. In subsequent chapters, the two cities will be referred to only as City A and City B.

[32] Descriptions of the economic base of each city were found in Donald J. Bogue and Calvin L. Beale, Economic Areas of the United States (New York: The Free Press of Glencoe, Inc., 1961); statistical documentation of the decline in both cities of employment in manufacturing and other industrial sources of jobs was provided by U.S. Department of Labor Statistics, Employment and Earnings, States and Areas, 1939-1974 (Washington, D.C.: U.S. Government Printing Office, 1975).

[33] For cities with populations over 100,000 but less than 250,000, a recent count was that seventy-two of such cities had mayor-council

For the sake of simplification and because of a primary interest in investigating only those expenditure choices over which city officials have direct and annual control, the data gathered was limited to the cities' general fund accounts. Such budgets allocate only locally raised-revenues plus, in recent years, revenue-sharing funds. Capital budget figures and federal and state categorical grants are thus excluded from the analysis, except to the extent that a city contributes money to such enterprises from its general funds.

Step 2. In the second step, the budget data was broken down by major municipal agencies. Furthermore, two agency-level budget items in each city (the General Government category and the Department of Public Works) were broken down into their program-level components. The analysis of program-level data is limited to these two agency-level funding units because of the ready availability of comparable program-level data for these agencies and because of the frequent non-availability and/or non-comparability of the program-level data for other agencies.

For the purposes of this research, the term agency or agency-level is defined as follows:

a. The "agency-level" refers to those relatively large administrative structures of municipal governments which exist to fulfill a general function and which are characterized by a relatively tall

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governments while seventy had the council-manager form. See International City Management Association, The Municipal Year Book, 1975 (Washington, D.C.: International City Management Association, 1975), p. iii.

hierarchy and by several specialized administrative units which fulfill fairly specific services peculiar to the general function of the parent agency. For example, the policy department fulfills the general function of law enforcement; it is marked by a fairly elaborate hierarchy; and (possibly) it contains specialized administrative units to fulfill such functions peculiar to law enforcement as patrolling, traffic control, homicide/drug/robbery investigations, policy laboratory testing, anti-riot action, recruit training, internal security, police communications, and so forth.

b. The "program level" as used here refers to categories of municipal expenditure which refer either to relatively specialized, administrative sub-units of agency-level structures, or to some long or short-term activity for which an agency-level structure is responsible. One possible illustration of the former (i.e., the "sub-units") would be the specialized offices of a police department cited above. A further example are such common city offices as the city clerk, treasurer, tax assessor, auditor, and so forth. Within most municipal budgets, these offices are classified as administrative sub-units of an agency-level budget category entitled "general administration" or "general government," which in toto constitutes the overhead, or support service agencies of a city.

Exemplifying long or short-term activities are expenditures in urban budgets for a variety of services. For instance, public works departments frequently seek funds for such items as road repairs, snow removal, sewer installation, and so forth. Such activities could be

undertaken by special offices within the department, but might also be accomplished by general labor crews at special times of the year. Thus, budget requests are presented as the services to be rendered, not only by the specialized, sub-unit structure of the agency.

Step 3. The third step in constructing a research design has been to develop a quantitative indicator by which to categorize budget choices tentatively as either incremental or non-incremental. Working from the critique of the existing quantitative literature, two points were used to guide and structure the development of a useful indicator. These were as follows:

a. As nearly as possible, the indicator should reflect the general manner in which decision makers make their choices: i.e., by focusing their attention upon the amount to be added or cut from a previous year's funding levels. Accordingly, it was concluded that the indicator should in some manner be based upon either the dollar or percent rate of annual change absorbed by agencies or programs. Since percent rates of change are more comparable, it was decided to employ that representation of change rather than the total dollar amount.

b. Next, some way had to be developed to relate the budget choices being made to the general availability of additional revenues in a given year. As noted earlier, severe problems in analysis can arise when one simply assumes that a percent annual funding change by itself provides a useful indicator of the types of choices being made.

As will be recalled, the notion of incremental budget choice involves providing a program or an agency with a "fair share" of a

total budget change. This "fair share" is presumedly added to or subtracted from the program's or agency's funding base. In a very important sense the question of whether incremental or non-incremental decision making is occurring is a question involving the share of available funds which an agency or program receives in relation to the amount of new monies available to a total budget. In other words, whether an incremental or non-incremental decision is made depends on whether a program or agency receives either a fair or unfair share of available dollars in relation to other programs or agencies.

In order to determine an agency's or program's annual "share," the first step in constructing an indicator was to calculate the percent annual funding changes (afc's) for every budget item under analysis. The formula for the afc is found in Figure 3.

$$(1) \quad afc_p = \frac{P_{it} - P_{it-1}}{P_{it-1}} \cdot 100\%$$

$$(3) \quad afc_{Ag} = \frac{Ag_{it} - Ag_{it-1}}{Ag_{t-1}} \cdot 100\%$$

where P = a program's annual budget

Ag = an agency's annual budget

r = any program or agency

t = time expressed as a year

1 = one year

afc_p = a program's annual funding change

afc_{Ag} = an agency's annual funding change

Figure 3. Formulae for Program and Agency Annual Funding Changes (afc's)

As noted earlier, Wildavsky, Fenno, and most recently, Bailey and O'Connor have all maintained that the percent afc for programs or agencies provides a reliable indicator of whether incremental or non-incremental choices are being made.[34] The percent afc does provide us a direct representation of the annual growth or decline of budget items. However, there is a flaw in using this statistic as an indicator of the types of decisions being made: namely, it ignores the relationship of the afc's to the general availability of new revenues for a total budget. For example, if an agency's budget increases by 40 percent in a given year, Wildavsky, Fenno, and Bailey and O'Connor would all claim that a non-incremental decision had occurred. But, if the municipal budget of which that agency is a component also obtained a 40 percent total increase, is the decision on that agency actually a non-incremental distribution or does it represent simply an incremental distribution of a fair share of available additional revenues to that agency? The argument here is that such a case would indicate an incremental decision, indeed a case of perfect or ideal incremental decision making.

Theoretically, assuming a perfectly mechanistic incremental decision process, every program or agency should absorb a percent afc equal to the afc received by the city budget. This would represent a perfect or ideal fair share of available new revenues, a share which

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[34] Wildavsky, Politics, p. 14; Fenno, Purse, p. 354; Bailey and O'Connor, "Measuring the Muddles," p. 64.

permits all programs or agencies within the city to command exactly the same proportion of the total budget from one year to the next.

Derived from the shift-share analysis of students of regional economic development,[35] a statistic has been developed to gauge the degree of variation which exists between the afc of a program or agency to the afc of the total budget. This statistic will be referred to as the Ratio of Annual Shares. In Figure 4 is a formula which may be used to calculate this ratio.

Using this formula, we might find that an afc_P has a 1.00 to 1.00 ratio to the afc_M. In such a case, as noted before, the program has received a perfect fair share of available new revenues. Moreover, to the extent the ratio varies from a 1.00 to 1.00 relationship we have evidence that decisions are being made which vary from a perfect or ideal incremental decision process.

For example, in a hypothetical city where municipal revenues rise by 10 percent in a given year, we might also find that four programs within a given agency have obtained budget increases of 5 percent, 10 percent, 30 percent, and 40 percent. Applying the formula in

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[35] In a brief, shift-share analysis is used to explore which sectors of a region's economy appear to be responsible for the overall economic growth or decline of that region. The literature employing it (or debating its merits) is fairly extensive. However, some of the basic articles dealing with it are: H. James Brown, "Shift-Share Projections of Regional Growth: An Empirical Test," Journal of Regional Science 9(1969):1-18; Edgar S. Dunn, Jr., "A Statistical and Analytical Technique for Regional Analysis," Papers and Proceedings of the Regional Science Association 6(1960):97-112; James Franklin, Jr. and James Hughes, "A Test of Shift and Share Analysis as a Predictive Device," Journal of Regional Science 13(1973):223-231; and H.S. Perloff, E.S. Dunn, Jr., E.E. Lampard, R.F. Muth, Regions, Resources and Economic Growth (Lincoln, Neb.: University of Nebraska Press, 1960).

Program-level	Agency-level
$\dfrac{\dfrac{P_{it} - P_{it+1}}{P_{it}}}{\dfrac{M_{it} - M_{it+1}}{M_{it}}}$	$\dfrac{\dfrac{Ag_{it} - Ag_{it+1}}{Ag_{it}}}{\dfrac{M_{it} - M_{it+1}}{M_{it}}}$
$= \dfrac{afc_P}{afc_M}$	$= \dfrac{afc_{Ag}}{afc_M}$
$= R_S$	$= R_S$

where P = a program's budget

Ag = an agency's budget

M = a municipal budget

i = a program, agency, or city

t = a given year

1 = one year

afc_P = a program's annual funding change

afc_{Ag} = an agency's annual funding change

afc_M = a city's annual funding change

R_S = the ratio of annual change in a sub-unit's budget to the annual change in a unit's budget

Figure 4. Formulae for Calculating the Ratio of Annual Shares (R_S)

Figure 5 to these afc's, we calculate R_S's of .5, 1.0, 3.0, and 4.0, respectively. From these R_S's, we have thus established the relative extent by which the actual afc_P's agree with or vary from the "ideal" afc_P which those programs would be expected to receive as an "ideal" fair share in an "ideal" incremental process. Respectively, the four programs have received one-half, perfect unity, three times, and four times more money than one would predict in a theoretically "perfect" incremental choice process.

An important question concerning the formula for R_S is why afc_P and afc_{Ag} are divided by afc_M. If we are attempting to determine the differences between program-level and agency-level budgeting, why not divide the afc_P by its relevant afc_{Ag} while continuing to divide the afc_{Ag}'s by the afc_M?

The reasons for dividing the annual funding change of programs by the annual funding change of the total municipal budget is fairly straightforward. By following this procedure, all budgetary choices within the city may be viewed within the context of the revenue constraints facing the city as a whole. Both Crecine and Anton have emphasized the importance of this general context, arguing in effect that the concern for minimizing increases in tax rates leads both chief executives and legislators to seek to hold increases in public expenditures to a minimal rate of growth.[36] Accordingly, since the

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[36] See Crecine, Governmental Problem-Solving, p. 40 and T.J. Anton, "Roles and Symbols in the Determination of State Expenditures," Midwest Journal of Political Science 11(February 1967):30-31.

summed result of these efforts is reflected in the afc for the total municipal budget, then logically, it is the afc_M which should be used as the denominator for calculating the R_S's for both programs and agencies.

Moreover, to use the afc_{Ag}'s as the denominator for calculating the program-level R_S's is to assume that budgetary decision makers provide a budget boost to an agency which in turn is passed on and divided up among the program-level components of that agency. For the urban (and even state levels) of government, such a presumption borders the absurd, riding in face of both common and scholarly knowledge of how budgets are overwhelmingly handled at this level. As suggested by both Crecine and Anton, state and local budgetary processes center upon the review of line-item requests,[37] which, in turn, comprise either the program-level budgets of agencies or an agency budget itself, depending upon the size and nature of the agency. This means that the total boost or cut absorbed by an agency is simply the sum of the increases or cuts absorbed by the line-item amounts which comprise either its own budget directly or its program-level elements, which, when summed, equal the total agency budget. Consequently, when an agency with identifiable program-level components obtains, for example, a 10 percent afc, that afc represents the dollar sum of the boosts received by those various components, which in turn may have received a variety of afc's reflecting cuts or boosts in their own sums. To

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[37]Crecine, Governmental Problem-Solving, p. 41; Anton, Expenditure in Illinois, pp. 186-188.

calculate these program's R_S's by dividing them by the afc_{Ag} would produce very misleading results, providing us only with indications of how the programs within that agency stacked up against one another rather than with all other programs or agencies within the city. Moreover, if, for example, all of these programs received non-incremental boosts then logically so too would the agency's budget. Accordingly, dividing their afc_P's by the resultant afc_{Ag} would serve only to cancel out the non-incremental nature of the program-level shifts. To prevent such an error, it becomes evident that the afc_P's as well as the afc_{Ag}'s must be divided by the afc_M in calculating their R_S's.

Step 4. Another important question is how to determine the level of R_S at which a non-incremental choice might be said to have occurred. As noted earlier, if $R_S = 1.00$, it seems likely that an incremental choice is indicated. The next step is thus to determine a ratio at which we may assume that such is not the case. As a first step to establish an R_S indicative of non-incremental choice, criteria guiding the choice should be stated. The desired ratio of non-incremental choice will be chosen in light of the following considerations:

a. It should be at sufficient variance from a ratio of 1:1 to suggest that a decision has been made to provide a program or agency with a probable "unfair" share of the available revenues.

b. It must be sufficiently large so as to reflect the obvious fact that some degree of variation is unavoidable for reasons found

within the incremental model (e.g., an agency head might be a poor advocate; the cutting bias of a budget officer may fall somewhat disproportionately upon different agencies, etc.).

The standard deviation of the ratios which are obtained in any given year for any given set of budget items meets this criteria. How much variation from a ratio of 1.00 to 1.00 is normal due to factors within the incremental model? One answer is to assume that such normal variation will vary from year to year given varying levels of new available monies and given random factors which will arise from an incremental decision process. Standard deviation units around a mean ratio provide a fairly flexible way by which to determine the amount of variation which will occur in any given year due to such factors.

Of course, standard deviation units cannot be assumed to be definitive indicators of the normal degree of variation which might arise in an incremental budget process. Nor may it simply be taken for granted that the budgetary processes of the two cities to be investigated are basically or consistently incremental processes of choice. These are matters for empirical investigation. Therefore, the use of standard deviation units as a mechanism by which to categorize specific decisions as either incremental or non-incremental will serve as the basis of the following three hypotheses:[38]

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[38]It must be noted that the standard deviations for the R_S's will be calculated around a hypothetical mean of 1.00. This procedure will be followed because in the model of "ideal" incrementalism, every case should have a R_S of 1.00 and, therefore, the mean of all cases should be 1.00. Accordingly, the standard deviations presented in this research will in essence provide measure of deviation from the model, not from the actual mean of the distribution. This is a necessary step

Hypothesis 1: R_S's which fall within plus or minus one standard deviation unit of the mean R_S for a given year will indicate probable incremental decisions.

Hypothesis 2: R_S's which fall beyond plus or minus one standard deviation unit, but which do not exceed plus or minus two standard deviation units around the mean R_S for a given year will indicate possible non-incremental decisions.

Hypothesis 3: R_S's which fall beyond plus or minus two standard deviation units around the mean R_S of a given year will indicate probable non-incremental decisions.

A more detailed discussion of this "s unit" approach is presented in later chapters. For now, the manner by which the usefulness of these hypothetical categories will be determined takes us to our fifth step in constructing a new research design for the study of budgetary choice.

Step 5. Using stratified random samples of budget choices categorized in accordance with the hypotheses, municipal officials involved in the making of the samples decisions will be questioned about the values and behaviors which underpin budgeting in general, and about the factors which led to those specific decisions. This data will provide two ways to refute the hypotheses. First, if budgeting in general is not viewed as occurring in incremental terms, then the

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because, as will be made clear in Chapter II, actual means tend to reflect the incremental or non-incremental nature of the decisions being made in any given year.

categories of incremental and non-incremental choice may have no validity. Accordingly, the hypotheses, which assume such validity, would have to be rejected.

Secondly, if budgeting in general is perceived in incremental terms, the respondents' opinions as to whether specific decisions were the result of incremental or non-incremental factors assumes great importance. In essence, these opinions will yield a set of classifications by which sample decisions may be classified as incremental or non-incremental. These classifications will, in turn, be compared to the classifications of the data yielded by the three hypotheses. Agreements and disagreements between the sets of classifications can be calculated. And, by this means, a tentative estimate of the utility of the standard deviation approach can be obtained. A more detailed discussion of this methodology and of the assumptions which underpin it will be provided in Chapter IV.

Step 6. Assuming that standard deviation units are found to possess some degree of utility, an important question remains: Does this approach have more or less utility than other conceivable techniques? Accordingly, the final step in this research design will be to compare the "s unit" approach to other devices for classifying budgetary decisions, devices such as those suggested by Fenno, Wildavsky, and others.

An Outline of the Remaining Chapters

The structure of the balance of this dissertation will be as follows:

In Chapter II, a methodological digression will be explored. As will be seen, the R_S statistic generates assumptions not only about ideal incremental decisions, but also about ideal incremental processes. Using the hypothetical mean of such a process, tests of means will be used to classify whole arrays of budget data as incremental or non-incremental. Employing other techniques for classifying such arrays, the utility of this approach will be examined and evaluated.

In Chapter III, the application of the research design discussed in this chapter begins in earnest. Here, the findings from the interviews will be discussed. These findings will be compared to a behavioral model of municipal budgeting in order to determine whether budgeting in general within the two case cities conforms to the roles, values, and behaviors one would expect in an incremental process.

The comparisons of the respondents' classifications of the sample decisions with the classifications generated by the "s unit" approach will be presented in Chapter IV. Here, we will seek to determine the utility of the "s unit" technique, and to test the three hypotheses generated by that technique.

Next, in Chapter V, the utility of the "s unit" approach will be compared to a number of other techniques for classifying budgetary choice. Here, an effort will be made to determine whether the "s unit" approach is less, equally or more useful as a choice classifier.

And finally, a summary of the methodological conclusions and the substantive findings will be presented in Chapter VI. The ability of other models of urban policy analysis to account for budgetary incrementalism will also be examined.

Summary

In sum, this research project will attempt to make a significant contribution to our understanding of municipal budgeting as a political-bureaucratic process. In part, this contribution will consist of an analysis of a new technique for classifying budgetary choice, i.e., for operationalizing the concepts of incremental and non-incremental decisions. And, in part, this contribution will also consist of efforts to confirm or deny the validity of the incremental model as a means for comprehending urban budgeting. This latter contribution rests, of course, upon the ability to demonstrate that incremental role systems do in fact generate a predominance of incremental choices, a causal linkage never satisfactorily tested because of the failure to adequately operationalize the different types of decisions.

In closing, it must be stressed that no statistically valid inferences will result from this study. Using a two city case study approach, the purpose of this research is largely confined to an initial exploration of an obviously costly and time consuming research design. However, this is a necessary first step because, given the cost, a more ambitious study of a sample of cities within a state,

region, or the nation would be justified only if this design shows promise as an aid to our comprehension of urban budgeting. In short, no final truths are expected to emerge here. However, it is hoped that new directions for the pursuit of "political reality" will be found.

C H A P T E R I I

THE RATIO OF SHARES AS AN INDICATOR OF INCREMENTALISM: SOME STATISTICAL CONSIDERATIONS

Introduction

In this chapter, the focus will be upon the utility of the ratio of shares (R_S) formula as a statistical indicator of incrementalism in budgetary processes. To accomplish this, a model of an ideal incremental process based on the R_S formula will first be presented. From this model an hypothesis will then be developed by which to gauge the extent to which R_S's obtained from sets of budget data approximate this ideal. In addition to presenting the tests of this hypothesis, this chapter will also present an analysis of the correlation coefficients between sets of R_S's from one year to the next.

An Ideal Model of an Incremental Budgetary Process and an Hypothesis

As discussed in Chapter I, the ratio of shares for any particular municipal budget choice is equal to its annual funding change divided by the annual funding change for the entire city's budget. In symbolic terms, this appears as follows:

$$R_S = \frac{afc_i}{afc_M}$$

where R_S = the ratio of shares

afc_i = the annual funding change for any particular agency or program of a given city,

and afc_M = the annual funding change for an entire municipal government.

Moreover, as was further noted, an ideal incremental choice is said to occur when the result of this formula equals 1.00 (or a ratio of one to one). Thus, for example, a municipal program which receives a ten percent boost in a city where expenditures rise by ten percent would constitute an ideal incremental decision. Again, to the extent that the R_S varies from a value of 1.00, we have evidence of a budget choice which varies from an incremental one.

In other words, R_S = 1.00 represents a standard of incrementalism against which actual budget choices may be compared. Chapter V will seek to determine the extent of variation from an R_S of 1.00 which an individual R_S must manifest in order to be labelled a non-incremental decision. Our concern in this chapter is whether a model of ideal incrementalism may be constructed in order to establish an indicator by which to decide whether a complete set of budget choices is incremental or non-incremental in nature.

The model of an ideal incremental process (not decision) which has been devised is a somewhat simplistic extension of the notion that an ideal incremental choice is an R_S of 1.00. In brief, if R_S = 1.00 constitutes an ideal incremental choice, then logically an ideal incremental process is one in which all decisions are ideal incremental choices.

Thus, by way of illustration, such a process would operate as shown in Figure 5.

Year 1 Budget Base	Year 2 Budget Base	%afc	R_S
$ 100	$ 110	10%	1.00
$ 200	$ 220	10%	1.00
$ 300	$ 330	10%	1.00
$ 400	$ 440	10%	1.00
$ 500	$ 550	10%	1.00
Total =$1,500	$1,650	10%	--

Figure 5. An Ideal Incremental Process

If we accept that an ideal incremental process is one in which each decision has an R_S of 1.00, then it follows that the mean of an ideal incremental process is 1.00 as well.

This value constitutes a standard against which the $\bar{R}_S$ actually obtained from a set of budget data may be compared. As will be shown, the distribution of R_S values tends to roughly approximate a normal curve. Accordingly, the t-score formula to test differences between means may be used to demonstrate whether the $\bar{R}_S$ of an actual set of budget data is statistically different from the ideal mean expected from an ideal incremental process.

Before setting forth the formulae to be used, one adjustment in the formula for obtaining R_S values should be established. In order to simplify calculations and to bring the data in line with the concept of a normal (or test) distribution, all R_S's have been linearly transformed by subtracting the value 1.00 from them. This means that the adjusted R_S of an ideal incremental choice is now 0.00, while,

concomitantly, the mean R_S of an ideal incremental process is also 0.00. The formula for an adjusted R_S appears as follows:

$$\text{adj. } R_S = \frac{afc_i}{afc_M} - 1.00$$

The situation of experimental interest here is whether the $\bar{R}_S$ of an actual set of data may be used to determine if that set is significantly more non-incremental than another. Stated in formal terms, this results in the following hypothesis:

Hypothesis: For a given set of budget data, there will be a significant difference between the obtained mean (adj. $\bar{R}_S$) and the ideal adjusted mean of 0.0.

H_0 = For a given set of budget data, there will be no significant difference between the obtained mean and the expected mean of 0.0.

It is the null hypothesis of Hypothesis I which this research is most interested in "proving" valid. That is, if the model of ideal incrementalism has any validity then a high percentage of tests should indicate no significant difference between the ideal and the obtained means. This suggests that, in terms of persuasive argumentation, it would be more costly to fail to reject a false H_0 than it would be to fail to accept a valid H_0. Thus, the significance level for testing

the null hypothesis will be set at both .05 and .10 in two two-tailed tests.[1]

The formula used to test the hypothesis is as follows:

$$t = \frac{M_i - E(M)}{\text{est. } \sigma_M} \quad \text{or} \quad \frac{\text{adj. } \bar{R}_S - E(\text{adj. } \bar{R}_S)}{\text{est. } \sigma_M}$$

where t = the resultant t-score

M_i = the obtained mean

$E(M)$ = the expected mean of 0.00

est. σ_M = the estimated standard error

adj. $\bar{R}_S$ = the obtained mean for any particular set of adjusted R_S's

and

$E(\text{adj. } \bar{R}_S)$ = the expected adjusted mean of 0.00.

As noted, two two-tailed tests will be employed, letting $\alpha = .05$ and .10, respectively.

There is a crucial point which needs to be made regarding the use of this formula. In this context, the t test is <u>not</u> being used as a true test of significance. If it were, the question under review would be whether the findings drawn from a sample of data may be justifiably inferred to hold for a real, but unmeasured population. Indeed, the formula itself is a <u>modified</u> version of the formula for testing whether a mean obtained from a sample is significantly different from a grand mean.

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[1] See the discussion of "Type I" and "Type II" errors in Linton C. Freeman, <u>Elementary Applied Statistics For Students in Behavioral Science</u> (New York: John Wiley and Sons, Inc., 1965), pp. 154-56.

In short, what is being done here is to use this t test-derived formula as an indicator. The formula is not being applied to a sample, but to a complete array of annual budget data for particular organizational categories. It is not being used to determine whether a sample mean is significantly different from a grand mean but to determine if a population's mean is significantly different from the presumed mean of a hypothetical, but non-existent ideal array. To the extent that this formula "tests" the hypothesis, all that is being revealed is that one set of data may be tentatively classified as incremental, while another may be tentatively classified as non-incremental. Neither the hypothesis nor the null hypothesis can be rejected in the normal sense on the basis of this test, because we are not dealing here with a true test of significance.

Before proceeding with the application of the formula to the data, a discussion will be provided on the program and agency-level budget data drawn from the two cities. This will help to explain why a t test formula is being used as an indicator, as well as to improve the reader's general understanding of the nature of the data being examined.

A Description of the Data from the Two Case Cities

As noted in Chapter I, budget data from the general fund accounts of two Massachusetts cities were gathered for the period ranging from FY1967 to FY1976. This resulted not in ten budgets per city but in nine due to a one-time state-mandated changeover in the

fiscal year format to bring the state fiscal year in line with the federal fiscal year. Occurring during 1973 and 1974, the adjustment resulted in one budget period lasting for eighteen months. The data for this period, labelled herein as FY1973, was prorated over a twelve month period to make it comparable to the data obtained for the other twelve month periods. Following this procedure leaves us without a FY1974.

With nine budgets, we have eight funding change periods and for each of these, annual funding changes were calculated for each agency-level category and for the programs within the "general government" and public works categories. In order to retain the true relationship between the sum of the programs, the total agency funding, and the total general fund budget, no program was omitted from the calculation of adj. $\bar{R}_S$'s because of size.

Graphs showing the distribution of adj. R_S's for each city are found on the next several pages. Figures 6 and 7 show the distribution of all the adj. R_S's calculated for City A and City B, respectively, over the eight funding change periods. Figures 8 and 9 exhibit the adj. R_S's for the agency-level categories of City A and City B, respectively. Figures 10 and 11 compare the distributions of the general government programs of each city, while Figures 12 and 13 compare the adj. R_S distributions for their public works programs.[2] A complete list of the agencies and programs for each city is found in

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[2]The choice of an R_S value of .5 for interval width was based upon a desire to retain the sense of whole R_S values in the graphs.

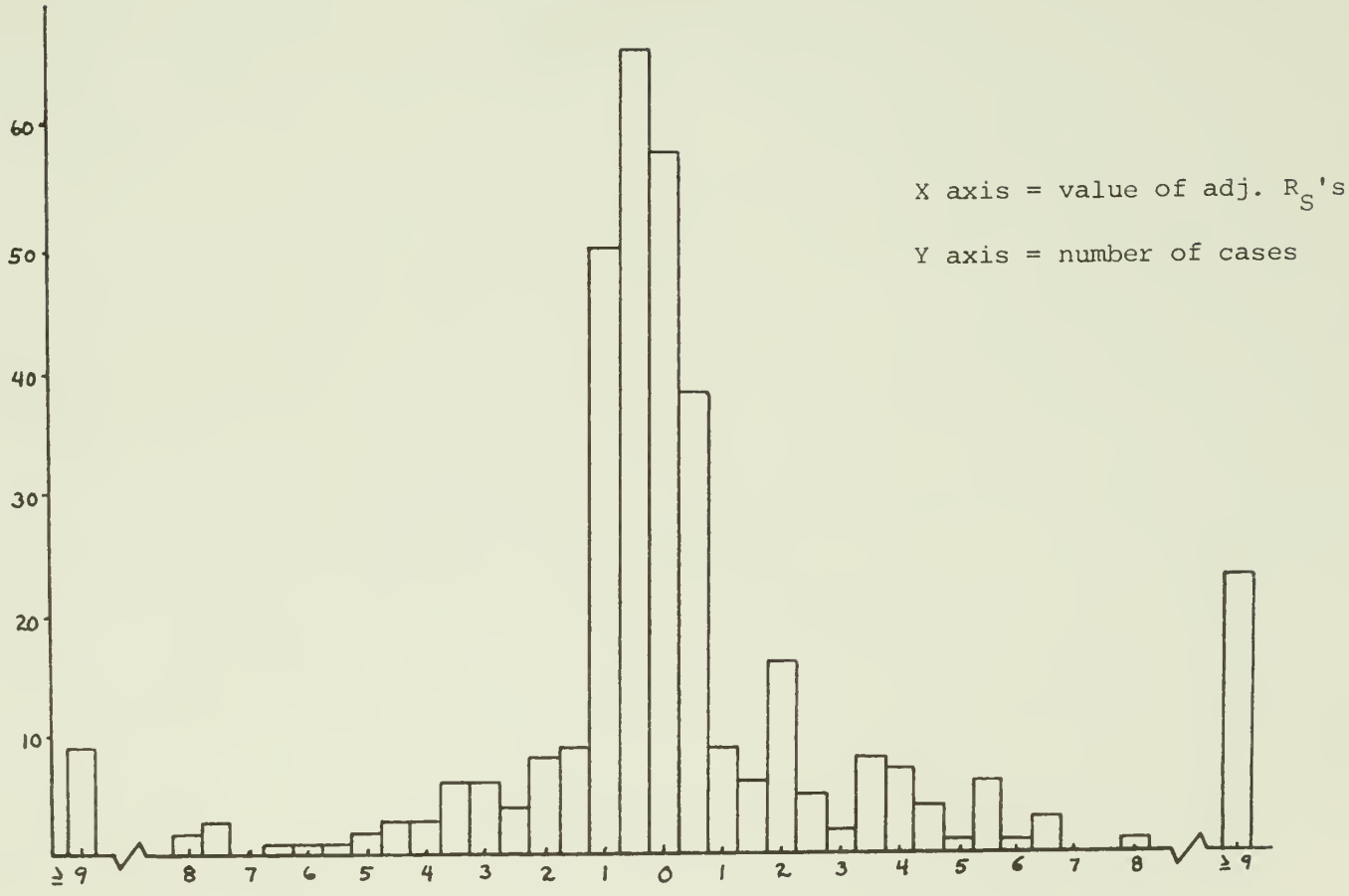

Figure 6. City A: All Calculated R_S's, 1967-76.

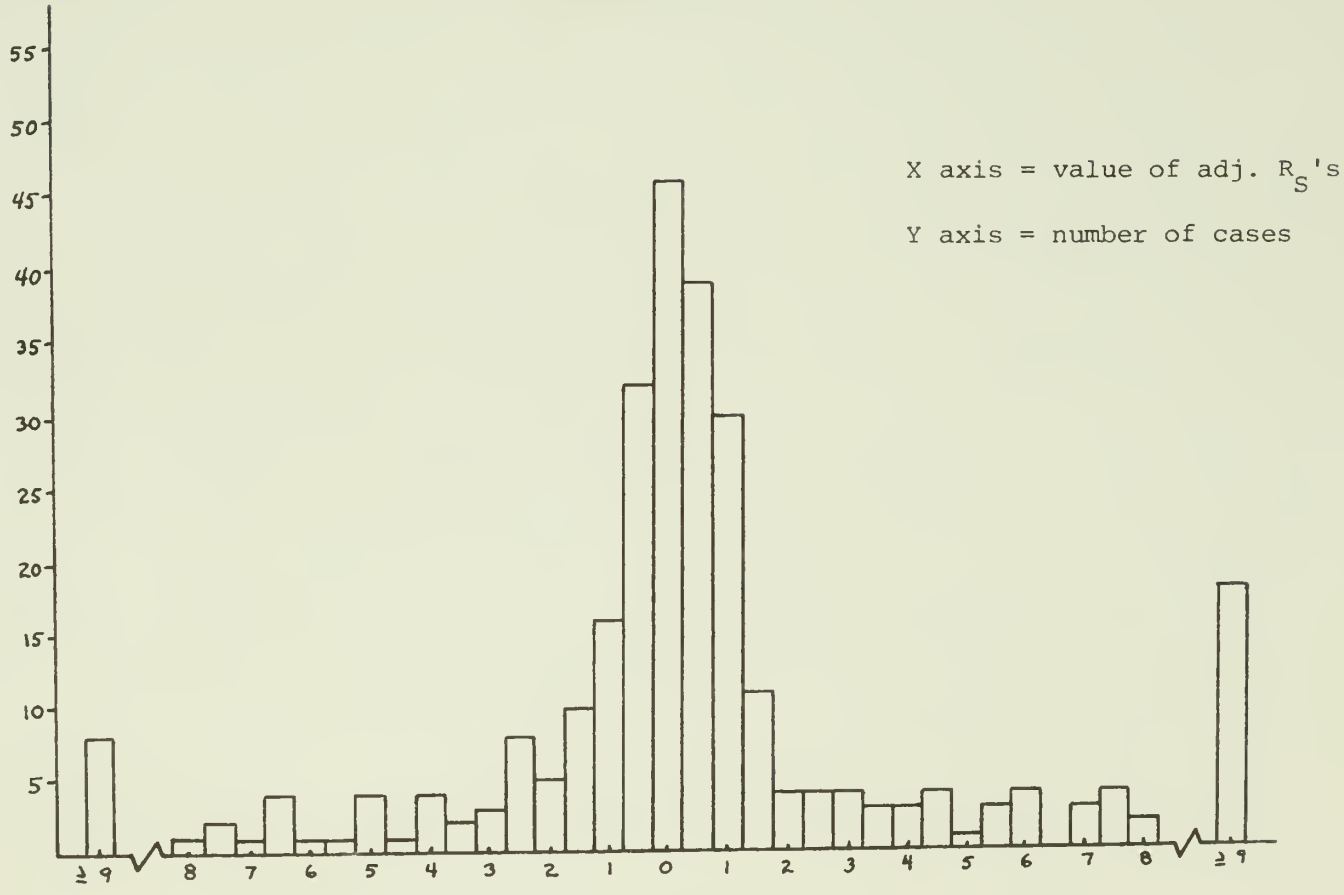

Figure 7. City B: All Calculated R_S's, 1967-76.

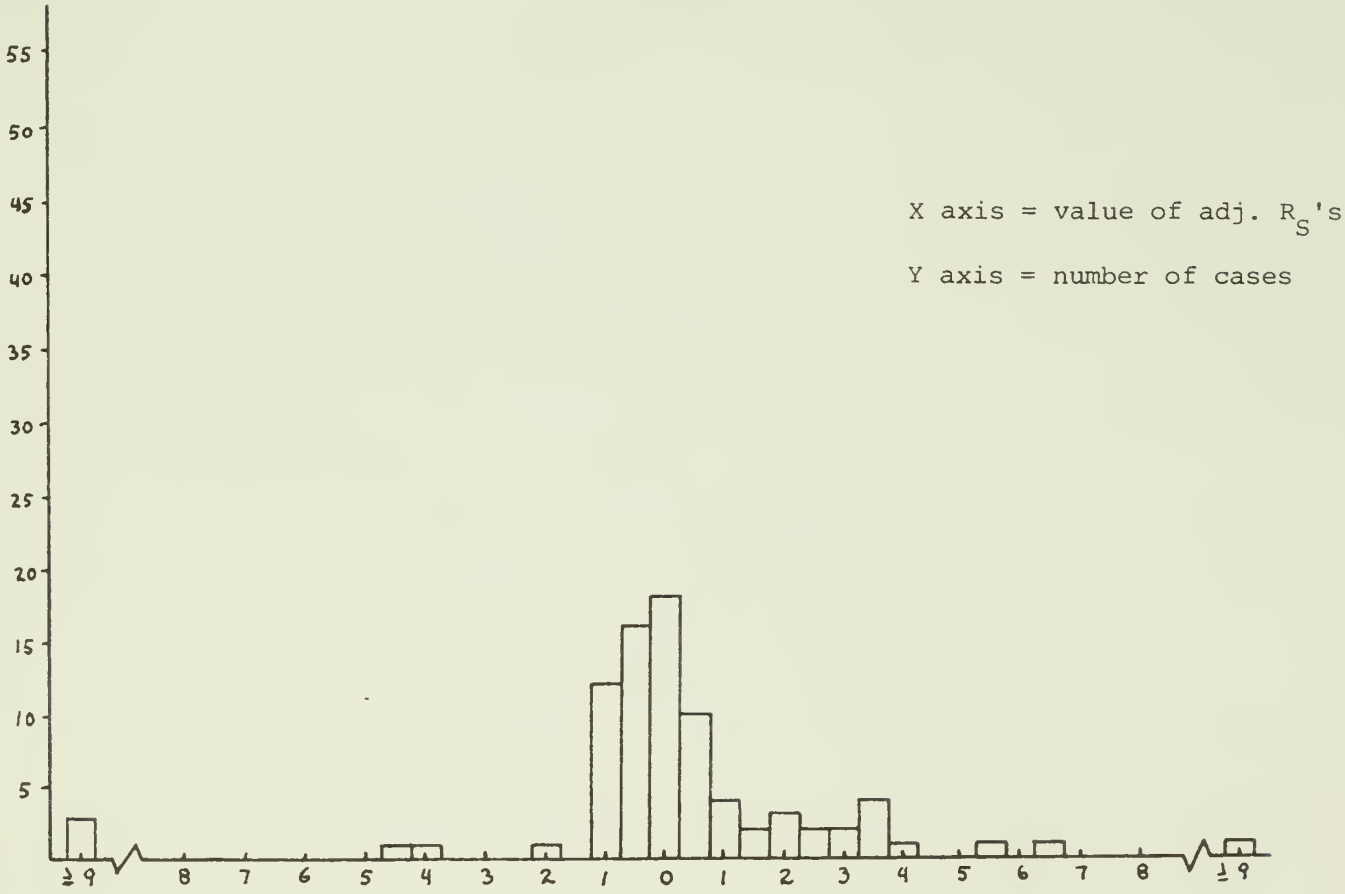

Figure 8. City A: Agency R_S's, 1967-76.

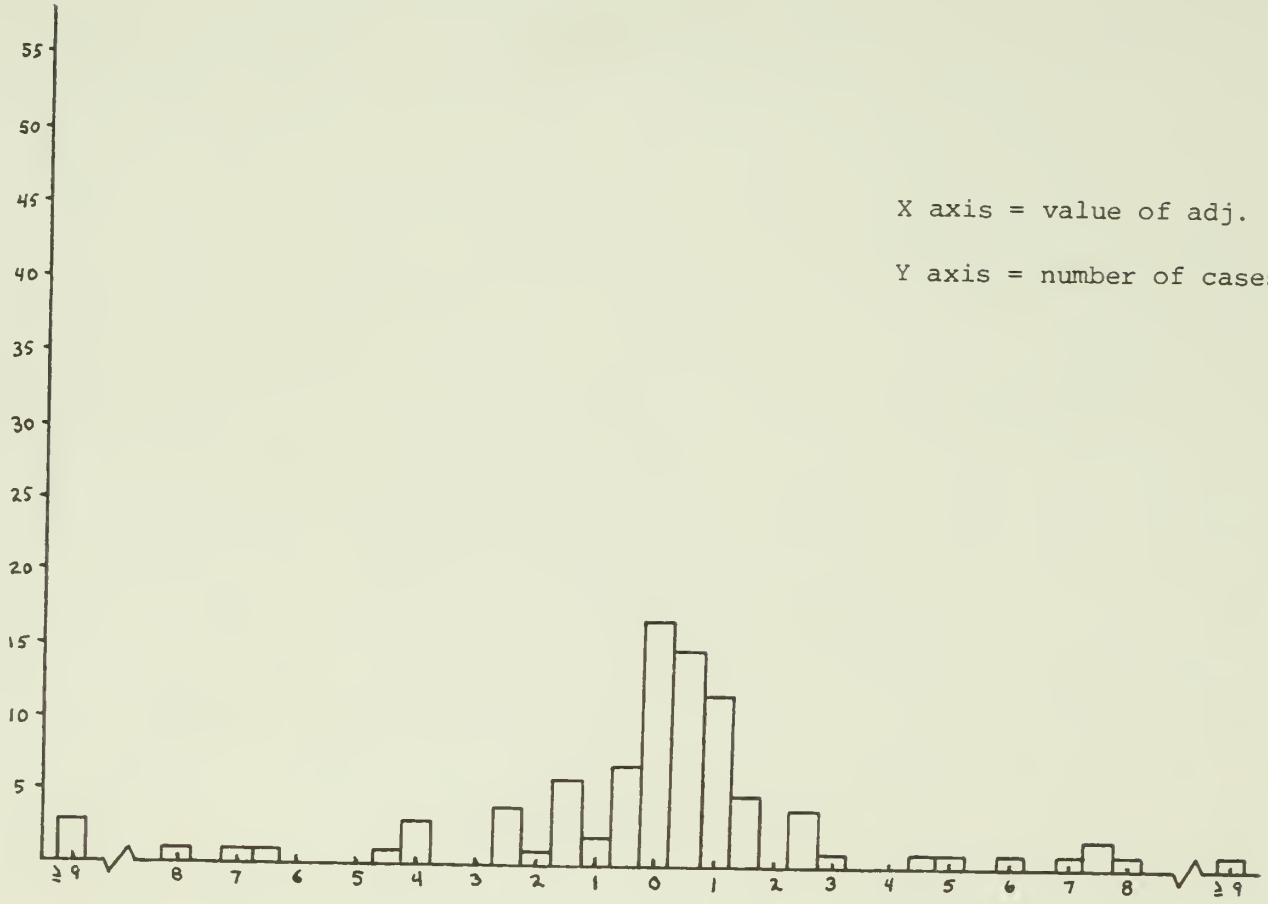

Figure 9. City B: Agency R_S's, 1967-76.

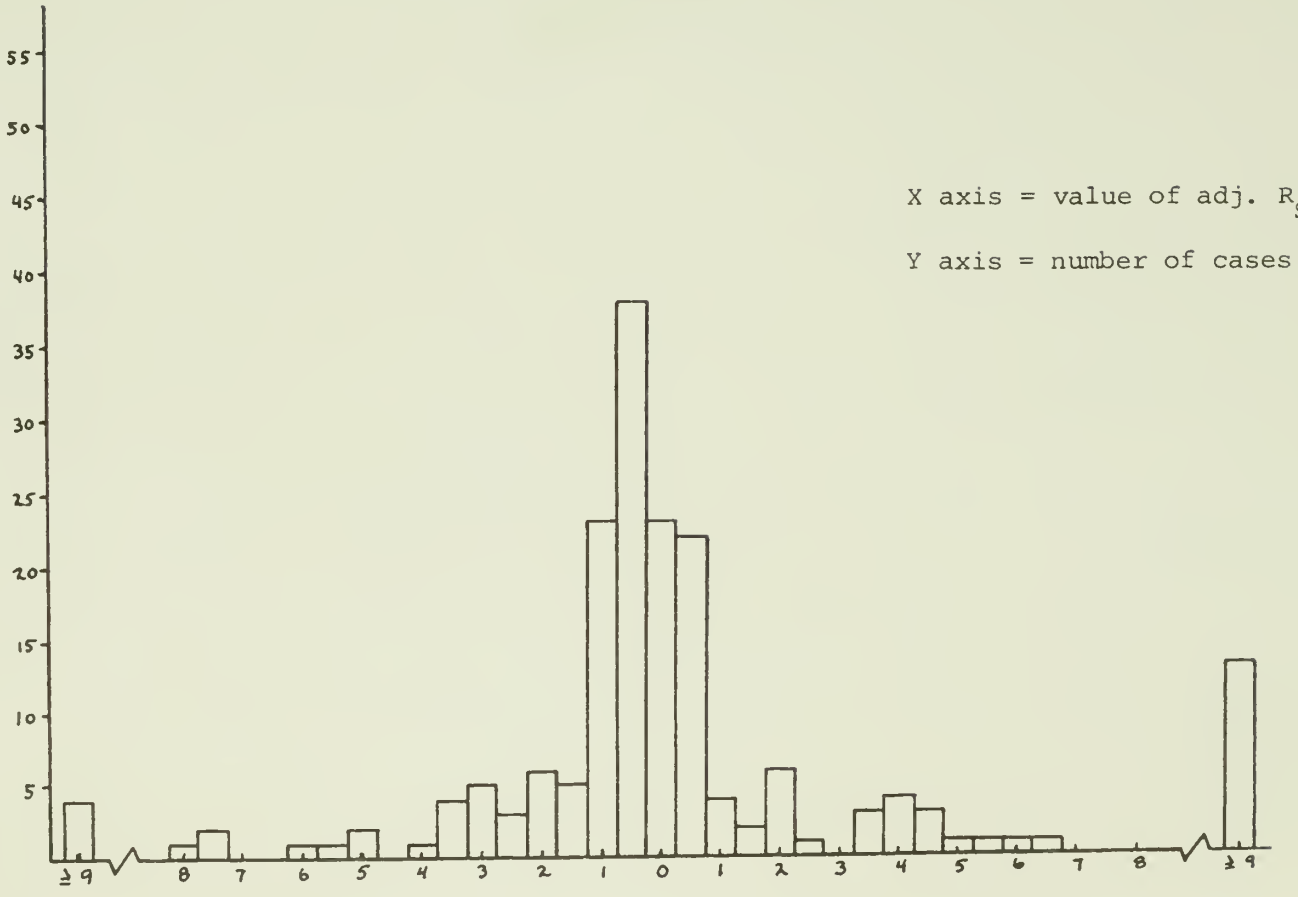

Figure 10. City A: General Government R_S's, 1967-76.

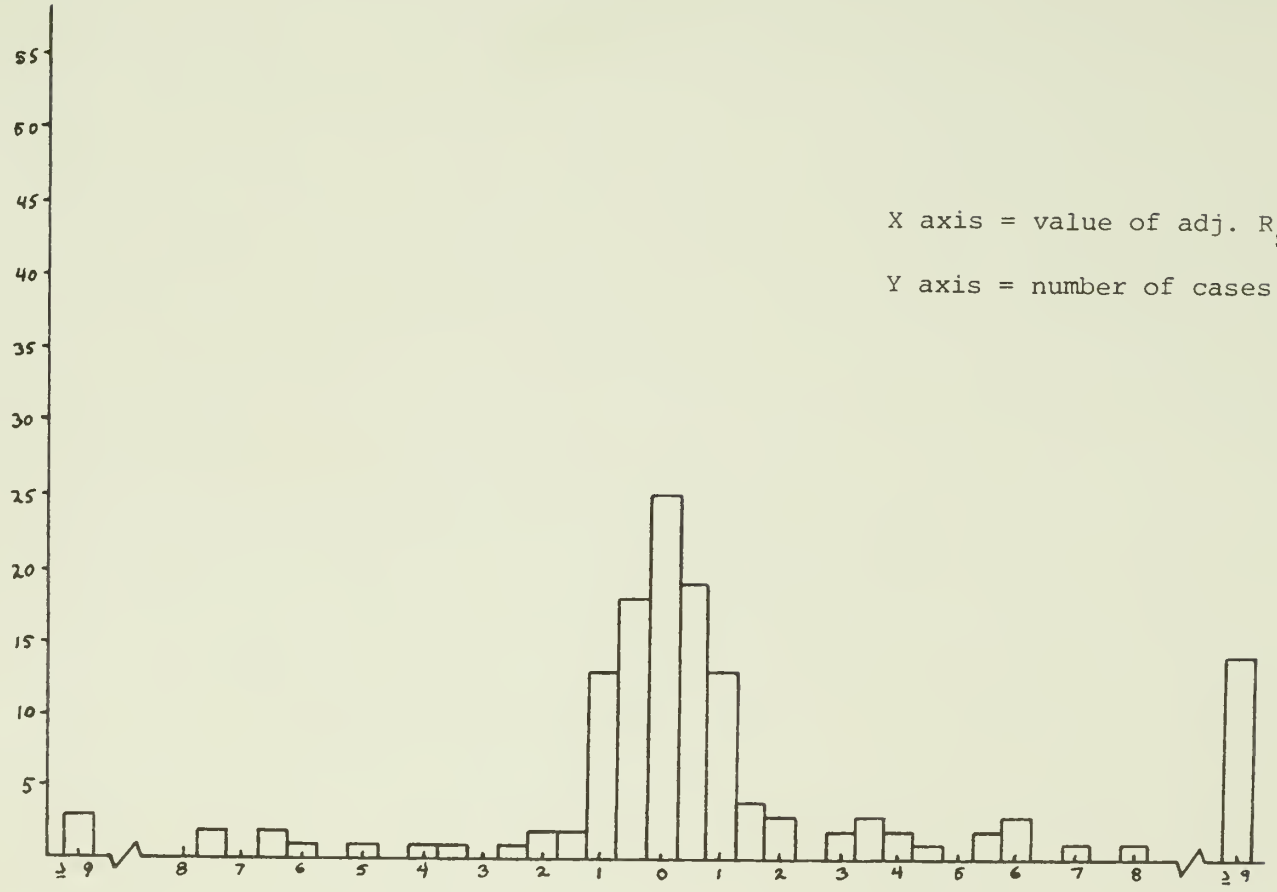

Figure 11. City B: General Government R_S's, 1967-76.

Figure 12. City A: Public Works R_S's, 1967-76.

Figure 13. City B: Public Works R_S's, 1967-76.

Appendix A along with their afc's and adj. R_S's for each funding change period. Appendix B presents the distribution graphs for each category within each city by funding change periods.

Several points concerning these graphs should be made. While too peaked, Figures 6, 7, 10, and 11 show the strongest resemblance to a normal distribution. The first two of these show the distribution for all of the R_S's calculated in the two cities, while the other two show the distribution for the programs in the general government category. Figures 8 and 9 show a somewhat skewed distribution. However, the agency-level distribution of City A is skewed toward an R_S of -1.00, while that of City B is skewed with almost mirror-like exactness toward an R_S of +1.00. Based only upon these data, this suggests that particular factors were at work in each city's budget process to slow or to promote growth over this time period. It does not strongly suggest that the distribution for the entire universe of R_S's for the agencies in each city is of a naturally skewed nature. The agency-level graphs in Appendix B offer additional support for this point.

Whether anything approaching a normal distribution is applicable to the programs in the public works agencies of each city (especially City B) is difficult to say. It is a matter of debate whether the

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Since whole R_S values were considered too large, and since intervals of .25 were found to be too small according to the standard formula for calculating interval widths, .5 interval widths were chosen as a viable middle-ground position. In regards to the standard formula for calculating interval widths, see Lawrence L. Lapin, Statistics: Meaning and Method (New York: Harcourt, Brace, Jovanovich, Inc., 1975), pp. 23-25.

patterns presented reflect the true nature of their distribution throughout time, peculiarities arising from the manner in which the data is grouped, or factors affecting choice peculiar to this ten-year period. The annual DPW graphs in Appendix B offer little further enlightenment.

In any event, the distributions generally appear to be unimodal, fairly smooth, and with modes which would probably fall within plus or minus one standard deviation of the mean. While significantly different statistically from a normal distribution,[3] they are probably "close enough" to warrant the use of a t test approach, at least as an indicator. As William L. Hays states concerning t tests,

> . . . So long as the sample size is even moderate for each group quite severe departures from normality seem to make little practical difference in the conclusions reached. . . . (T)he departure from normality can make more difference in a one-tailed than in a two-tailed result. . . . By and large, however, this assumption (of normality) may be violated almost with impunity provided that sample size is not extremely small.[4]

Hayes' comments refer, of course, to the use of t tests as tests of significance wherein the problem being resolved is whether the findings drawn from a sample may be extrapolated out to an entire population. As noted, this application of the tests, the question of statistical significance is of no real concern. Here, we are simply seeking to use the t tests as indicators of whether or not a complete

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[3]Chi-square goodness of fit tests were applied to the data to make this determination.

[4]William L. Hays, Statistics for the Social Sciences, 2nd ed. (New York: Holt, Rinehart, and Winston, Inc., 1973), p. 410.

set of annual budget data for a particular organizational category may be labelled as incremental or non-incremental. Logically, if the data under review is data to which, in terms of distribution, a t test might be applied, all that is resolved is that the case for using t tests as indicators is made stronger than it otherwise would be. In sum, the use of the t tests is justifiable both because the distribution of the data is adequate for their application, and because they are being used here as indicators, not as true tests of significance.

Further information concerning the data is presented in Tables 1 and 2, tables which present some descriptive statistics for the R_S's from City A and City B, respectively. As may be seen, the tables first present these statistics for the three major categories (i.e., the agencies, general government programs, and public works programs) for the entire ten-year period (1967-1976). These summary materials are then followed by the same statistics for each funding change period. It should be noted that the statistics were calculated excluding R_S values greater than ± 6.00.[5]

As may be seen, over 80 percent of the $\bar{R}_S$'s obtained fall within ± 1.00 of the E(adj. $\bar{R}_S$). And skewness is less than a ± 1.00 in over 60 percent of the cases.

In addition, it should also be noted that the $\bar{R}_S$'s exhibited in the tables demonstrate considerable variation from the E(adj. $\bar{R}_S$).

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[5] This value was chosen because the graphs strongly suggest that the vast majority of R_S values tend to fall between ± 6.00. Beyond this point, the incidence of R_S values tends to become increasingly sporadic and random.

TABLE 1

DESCRIPTIVE STATISTICS FOR R_S DATA OF CITY A WITH VALUES > THAN AN R_S OF 6.0 EXCLUDED

	Mean	Standard Error	Standard Deviation	Skewness
For Each Category: All Years Combined				
Agencies	.259	.382	1.268	-1.747
Gen. Govt. Programs	.50	.228	1.096	.387
DPW Programs	.249	.173	.693	.197
For City A Agencies by Year				
1967-68	1.954	.500	1.500	- .640
1968-69	2.831	.674	2.022	- .631
1969-70	-.506	.380	1.262	-1.864
1970-71	-.910	.370	1.172	1.355
1971-72	.100	.195	.617	.137
1972-73	-.270	.138	.436	- .211
1973-75	.930	.222	.703	- .340
1975-76	-.758	.465	1.472	-1.591
For City A Gen. Govt. Programs by Year				
1967-68	.794	.635	2.540	- .823
1968-69	.912	.729	2.827	.461
1969-70	.145	.288	1.320	1.978
1970-71	-.789	.179	.860	.134
1971-72	-.412	.347	1.514	-2.088
1972-73	-.955	.435	2.042	- .145
1973-75	.250	.301	1.413	1.377
1975-76	-.573	.343	1.535	1.563
For City A DPW Programs by Year				
1967-68	.869	.877	3.163	- .537
1968-69	2.364	.761	2.636	- .484
1969-70	-.833	.378	1.513	- .485
1970-71	-.241	.446	1.726	2.526
1971-72	-.461	.273	1.059	.128
1973-75	.786	.350	1.308	- .321
1975-76	-.625	.237	.856	.481

TABLE 2

DESCRIPTIVE STATISTICS FOR R_S DATA OF CITY B WITH VALUES > THAN AN R_S OF 6.0 EXCLUDED

	Mean	Standard Error	Standard Deviation	Skewness
For Each Category: All Years Combined				
Agencies	.165	.304	1.052	-1.483
Gen. Govt. Programs	.680	.144	.642	.338
DPW Programs	.305	.608	1.721	.551
For City B Agencies by Year				
1967-68	.936	.527	1.748	.403
1968-69	1.517	.727	2.299	.786
1969-70	-.485	.347	1.150	-1.154
1970-71	.204	.310	1.030	-1.346
1971-72	-.211	.544	1.805	- .466
1972-73	.180	.349	1.048	1.000
1973-75	-.537	.878	2.483	- .314
1975-76	-.246	.586	1.853	- .816
For City B Gen. Govt. Programs by Year				
1967-68	1.230	.493	1.907	1.321
1968-69	.496	.518	1.795	1.592
1969-70	-.214	.151	.524	1.239
1970-71	-.639	.245	.949	.340
1971-72	.326	.248	.991	1.836
1972-73	1.288	.658	2.631	- .288
1973-75	.707	.709	2.745	- .456
1975-76	-.143	.403	1.611	-1.188
For City B DPW Programs by Year				
1967-68	-.662	.601	1.202	- .536
1968-69	1.539	1.029	2.722	.329
1969-70	-.576	1.217	3.219	- .310
1970-71	-1.358	1.184	2.368	- .936
1971-72	-2.046	.611	1.366	.146
1972-73	-.629	1.984	2.867	- .407
1973-75	.410	1.446	3.234	.650
1975-76	-.272	.413	1.013	- .651

With a range extending from 2.831 to -2.872, it is at least safe to state that budgetary decision processes clearly diverge from the ideal incremental process to varying degrees depending upon both time and the particular decision process being focused upon. If nothing else, the R_S format helps to highlight such yearly variation.

This completes the presentation of an overview of the data. We now proceed to the "testing" of the hypothesis.

A "Test" of the Hypothesis

To repeat, the hypothesis states the following:

Hypothesis: There will be a significant difference between the obtained adj. $\bar{R}_S$ for any given set of data and the E(adj. $\bar{R}_S$) of 0.00.

The assumption underlying this hypothesis is that the finding of a significant difference indicates that the decision process generating such an adj. $\bar{R}_S$ is a non-incremental one, given a unimodal, roughly normal distribution of the data. Conversely, in the event that no significant difference exists between the obtained and expected mean, then we have an indication that the process is incremental in nature, again given a unimodal, roughly normal distribution.

As stated, the formula used to test this hypothesis was:

$$t = \frac{X - E(\bar{X})}{SE} = \frac{\text{adj. } \bar{R}_S - E(\text{adj. } \bar{R}_S)}{SE}$$

Since the null hypothesis was expected to prove valid far more frequently than the hypothesis itself (i.e., it seemed likely that most sets of data represent the outcomes of an incremental decision

process) the problem of accepting a false null hypothesis was believed to outweigh the problem of rejecting a valid null hypothesis. Therefore, to make the analysis more sensitive to the possibility of significant differences between the obtained and expected means, two relatively low levels of significance were employed by which to evaluate the t-scores. There were a .05 level and a .10 level.

A further problem arose concerning whether to include or to exclude outlyers in calculating the means. Excluding them seemed likely to result in a pattern of findings over-representing the presence of incremental decision making. However, including the outlyers at full value presented the danger that an extreme case could so affect the mean that the results would appear more non-incremental than they really were.

In light of this problem, it was concluded that the tests of significance should be run on the data as manipulated in a variety of ways. Therefore, the tests were first applied to the data with outlyers greater than 6.0 excluded. Next, the tests were applied to the data with the outlyers included but with their values "corrected" to an R_S of no greater than 7.0 or 30.0, respectively. By this technique, it was hoped that the danger of the extreme outlyer (i.e., with true values greater than 7.0 or 30.0, respectively) could be offset. However, at the same time, more of the "full flavor" of the entire distribution would hopefully be retained than was the case with the outlyers excluded altogether. Finally, the tests were applied to data

with the full value of all outlyers retained. The logical expressions for these four manipulations of the data are as follows:

(a) If $R_S > 6.0$, then $R_S = 0.00$

(b) $R_S \leq 7.0$

(c) $R_S \leq 30.0$

(d) $R_S = R_S$

The results of the tests of significance for each of the four data manipulations are presented in Table 3 (for City A) and Table 4 (for City B). The number of "No's" presented indicate that there was no significant difference between the actual and ideal means. For each annual set of data, there is a total of eight possible "No's," a figure derived from the four types of data manipulations listed above, multiplied by two levels of significance (.05 and .10).

Overall, Tables 3 and 4 strongly suggest that most of the budget choices of both cities during the 1967-1975 period were made within incremental processes. As can be seen, there is a clear trend wherein, for each year's data, a majority of the tests indicate that there is no significant difference between the actual and the ideal means.

Table 5 summarizes these two tables by classifying each organizational category's annual data according to the number of "no significance" results generated. To facilitate an understanding of this table, it should be kept in mind that data for the organizational categories of each city were collected for eight funding change periods. Three organizational categories multiplied by eight funding change periods yields an N of twenty-four change periods per city.

TABLE 3

IS THERE A SIGNIFICANT DIFFERENCE BETWEEN THE OBTAINED ADJ. $\bar{R}_S$ AND THE E(ADJ. R_S)?

	City A							
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-75	1975-76
1. DPW								
# No's	8	0	0	8	8	8	8	6
% No's	100%	0%	0%	100%	100%	100%	100%	75%
2. Gen. Govt.								
# No's	8	6	8	0	7	6	8	7
% No's	100%	75%	100%	0%	88%	75%	100%	88%
3. Agencies								
# No's	6	5	8	8	8	8	8	8
% No's	75%	62%	100%	100%	100%	100%	100%	100%

TABLE 4

IS THERE A SIGNIFICANT DIFFERENCE BETWEEN THE OBTAINED ADJ. $\bar{R}_S$ AND THE E(ADJ. $\bar{R}_S$)?

	City B							
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-75	1975-76
1. DPW								
# No's	8	8	8	8	6	8	8	8
% No's	100%	100%	100%	100%	75%	100%	100%	100%
2. Gen. Govt.								
# No's	4	8	8	6	8	1	5	8
% No's	50%	100%	100%	75%	100%	12%	62%	100%
3. Agencies								
# No's	8	7	8	8	8	8	8	8
% No's	100%	88%	100%	100%	100%	100%	100%	100%

The percentages presented in the third and sixth columns of the table were calculated by dividing the numbers appearing in the second and fifth columns, respectively, by the N of twenty-four.

TABLE 5

THE INCIDENCE OF THE NUMBER OF TESTS OF MEANS OUT OF A TOTAL OF EIGHT TESTS PER ORGANIZATIONAL CATEGORY OF DATA INDICATE AN INCREMENTAL DECISION PROCESS (AS DERIVED FROM TABLES 3 AND 4)

City A			City B		
# Tests Indicating an Incremental Process	Incidence of Annual Decision Processes at These Levels	% of Annual Decision Processes at These Levels	# Tests Indicating an Incremental Process	Incidence of Annual Decision Processes at These Levels	% of Annual Decision Processes at These Levels
8	15	62.5%	8	18	75.0%
7	2	8.3	7	1	4.2
6	3	12.5	6	2	8.3
5	1	4.2	5	1	4.2
0	3	12.5	4	1	4.2
			1		
	N=24	100.0%		N=24	100.1%

Making an arbitrary assumption that an incremental decision process is indicated when at least five of the eight tests show no significant difference between the obtained adj. $\bar{R}_S$ and the E(adj. $\bar{R}_S$), we find that 87.5 percent of the funding periods for City A are

possibly incremental processes, while 91.7 percent of the funding periods for City B fall in that category.

Unfortunately, such findings cannot be taken at face-value because we have no way of knowing for certain whether the tests possess any empirical validity. Clearly, their value as indicators needs to be double-checked against other possible approaches for indicating whether a budget process is incremental or not.

One alternative type of indicator would be to calculate the incidence of non-incremental decisions occurring within a process. Logically, it can be maintained that an incremental budgeting process should exhibit a lower incidence of non-incremental decisions than a non-incremental process.

In order to calculate the rate of non-incrementalism, each adj. R_S was classified as probably incremental (PbI), possibly non-incremental (PsNI), and probably non-incremental (PbNI), according to the criteria set forth in the three major hypotheses presented in Chapter I. Those R_S's classified as PsNI and PbNI were then summed and divided by the appropriate number of cases for their organizational category and year to yield the percentage of (estimated) non-incremental choices by year. This procedure generated an array of "rates of non-incrementalism" for each annual set of R_S's for each city's organizational categories.

For the sake of discussion, rates of non-incrementalism greater than 40 percent were arbitrarily designated as indicating that a budgetary process had operated non-incrementally for a given year.

Table 6 compares the results of this procedure against the classifications derived from the earlier procedure (used in Table 5) in which a process was classified as non-incremental if at least four of the eight tests of significant differences concurred that a process was non-incremental.

TABLE 6

A COMPARISON OF THE RATE OF NON-INCREMENTALISM APPROACH (RATE OF NI) TO THE TEST OF MEANS APPROACH (T OF M) FOR CLASSIFYING ANNUAL BUDGETARY PROCESSES AS INCREMENTAL (I) OR NON-INCREMENTAL (NI)

City A

		T of M Approach (Data Sets Classified as)		
Rate of NI Approach (Data Sets Classified as)		I	NI	MT
	I	15	4 =	19
	NI	5	0 =	5
	MT	20	4	24

City B

Rate of NI Approach (Data Sets Classified as)		I	NI	MT
	I	12	1 =	13
	NI	10	1 =	11
	MT	22	2	24

The tables clearly show that those sets of data categorized as NI by the tests do not possess the highest rates of non-incrementalism. In City A, where four of the data sets were labelled non-incremental by the tests, none of those four possessed rates of non-incrementalism

equal to or greater than 40 percent. However, five of the data sets labelled incremental did. Similarly, in City B, only one of two data sets classified non-incremental had a rate of non-incrementalism greater than 40 percent, while a full ten of the processes labelled incremental possessed such rates of non-incrementalism.

Three distinct interpretations of these problematic results seem plausible. First, the manner in which non-incremental choices are defined is erroneous. Second, the tests of significance are poor indicators of non-incremental processes. Third, the assumption that non-incremental processes should necessarily contain more non-incremental choices than incremental processes is too simplistic.

Whether or not the first interpretation is valid will be the subject of the fifth chapter. Therefore, assuming for now that this is not the problem, our attention will focus upon the second and third interpretations. Deciding between these two possibilities requires that an answer be given to the question of what the tests of means are measuring. Comparing the results of the tests to the graphs of the annual funding changes found in Appendix B gives us some guidance in this matter.

The graphs indicate that three types of distributions generate means which are significantly divergent from the E(adj. $\bar{R}_S$) of 0.00. The first type of distribution is one in which nearly all of the choices are more or less normally distributed, but considerably to the left or right of a mean of 0.00. An example of this is found in the graph for the general government programs of City A for the 1970-71

funding change period. In this situation, a heavy proportion of the programs received little to no funding boost or were cut in their funding.

The second (and most common) pattern for a non-incremental process is one in which the data is distributed somewhat normally, but where the distribution is centered slightly to the left or right of the E(adj. $\bar{R}_S$) of 0.00, and the non-incremental choices are nearly all positive or negatives values. Examples of this pattern are found in City A's public works programs during the 1968/69 and 1969/70 periods and in City B's general government programs for the 1967/68 and 1972/73 periods. Clearly, such slightly "off-center" distributions combined with the rather skewed nature of their non-incremental choices produce obtained means considerably at variance from the expected mean.

An important observation about such "non-incremental" distributions is that they are quite similar to many presumably incremental distributions in which the non-incremental choices are fairly evenly split between positive and negative values. For example, in City B's general government category, compare the graphs of the non-incremental distribution for 1972-73 with the incremental distribution of 1976-76. The major distinction between the two is that the non-incremental choices of the incremental distribution are more extreme in their variance from the center, but are almost evenly divided on the left and right sides of the vertical axis.

A third type of non-incremental distribution is actually non-normal in character. This distribution is low, indeed virtually flat with decisions appearing at rather random, widely spaced intervals. In addition, the great bulk of the R_S's lie to the left or right of 0.00, thereby generating a mean considerably at variance with the E(adj. $\bar{R}_S$). The distribution for City A's public works programs in 1968/69 illustrates this pattern. All in all, the peculiarly flat and dispersed nature of this distribution compared to most others strongly suggests that this pattern is quite properly designated as non-incremental. Similar distributions, which differ only in that their R_S's are more evenly distributed between positive and negative values, may likewise be viewed as atypical and non-incremental. However, their low, near-zero means lead them to be labelled as incremental.

It seems evident that the t tests have produced rather mixed results. On one hand, they appear to err by labelling as non-incremental fairly typical distributions wherein the one unusual trait is that their non-incremental choices are almost entirely of a positive or negative nature. On the other hand, they also appear mistaken by labelling as incremental, flat, widely dispersed distributions in which the R_S's are fairly evenly split to the left and right of the 0.00 axis. This second type of error is to be expected. After all, the tests used are applicable primarily to unimodal, roughly normal distributions. However, the first type of error is of a more serious nature, raising fairly strong doubts as to the reliability of the tests when applied to the more typical type of distribution. This

suggests, of course, that the second interpretation may be correct, i.e., the tests are poor indicators.

However, comparing the graphs to the test results strongly suggests that the tests are primarily sensitive to the clustering of the data around the expected mean of 0.00, and secondarily sensitive to the incidence and value of non-incremental choices. This suggests that the third interpretation, that non-incremental processes necessarily possess more non-incremental decisions, may be too simplistic. In other words, a non-incremental process may be one in which a relatively high rate of non-incremental choice is combined with incremental decisions which are also quite divergent from an adj. $\bar{R}_S$ of 0.00 relative to the incremental choices of incremental processes. Accordingly, a final judgment on the value of the tests as indicators of incremental vs. non-incremental processes should hinge upon the extent of central clustering, as well as the rate of non-incremental choice.

The major question arising at this point is how this second alternative, based upon both the rate of NI and the rate of central clustering (rates of CC), should be operationalized. In regards to the rate of NI, a decision was made to calculate it in exactly the same manner as before. However, since it is being assumed that a non-incremental process requires only a relatively high rate of non-incremental choice, an arbitrary decision was made to set this criterion at a 30 percent level, as opposed to the 40 percent rate used above.

Turning to the second half of this approach, the rate of CC was defined as the percent of decisions in a distribution which fall within the adj. R_S values of ±1.00. A review of the graphs demonstrates that most R_S's fall within these limits. For the purpose of defining a "non-incremental" rate of CC, an arbitrary decision was made to set it at a 50 percent level, i.e., if the rate of CC is equal to or less than 50 percent, then a data set meets one of the two criteria for being classified as non-incremental.

To summarize this second alternative, a data set will be classified as non-incremental if it possesses a rate of NI equal to or greater than 30 percent, and a rate of CC equal to or less than 50 percent. Conversely, data sets will be designated as incremental if they fail to meet one of the two criteria, or if they possess a rate of NI less than 30 percent and a rate of CC greater than 50 percent.

In checking the congruence of the test of means approach against the "two rates" (of CC and of NI) approach, it was found that the closest fits were generated when adj. R_S's of 6.00 were omitted (i.e., if adj. $R_S > 6.00$, then adj. $R_S = 0.00$) and when no modifications of the data were undertaken (i.e., $R_S = R_S$). Accordingly, in the following table, only the comparisons done for the data manipulated in these two ways are shown.

This table (Table 7) shows the number and percent of agreements between the two approaches. Agreements occur when both the test of means (TM) approach and the "two rates" approach concur in their classifications for a particular set of budget data. For example, if

TABLE 7

THE NUMBER AND PERCENT OF AGREEMENTS GENERATED BETWEEN THE TEST OF MEANS APPROACH AND THE "TWO RATES" APPROACH FOR EACH ORGANIZATIONAL CATEGORY'S BUDGET DATA FOR THE EIGHT FUNDING CHANGE PERIODS

	# Agreements	N*	% Agreement
City A			
A. adj. R_S > 6.00 = 0.00			
1. Public Works	6	8	75.0%
2. General Govt.	3	3	37.5%
3. Agencies	8	8	100.0%
4. Combined	17	24	70.8%
B. adj. R_S = adj. R_S			
1. Public Works	5	8	62.5%
2. General Govt.	7	8	87.5%
3. Agencies	6	8	75.0%
4. Combined	18	24	75.0%
City B			
A. adj. R_S > 6.00 = 0.00			
1. Public Works	4	8	50.0%
2. General Govt.	4	8	50.0%
3. Agencies	7	8	87.5%
4. Combined	15	24	62.5%
B. adj. R_S = adj. R_S			
1. Public Works	3	8	37.5%
2. General Govt.	7	8	87.5%
3. Agencies	6	8	75.0%
4. Combined	16	24	66.7%

*N = the number of annual funding change periods per organizational category

both approaches indicate that City A's Public Works data for the 1967-68 funding change period is incremental, then that constitutes one agreement. As noted in the table's title, there are eight funding change periods per organizational category. Therefore, for each organizational category, there is a maximum of eight possible agreements, and for each city there is a maximum of twenty-four agreements.

The results of these comparisons provide some interesting (if tentative) insights into the usefulness of the tests of means as indicators of non-incremental processes. Assuming that agreements signify valid classifications, one intriguing finding is that the tests in which values greater than ±6.00 are excluded are consistently better than the tests excluding no values in discriminating between incremental and non-incremental processes within the public works and agency-level data of both cities. Conversely, the tests excluding no values are superior indicators for the general government distributions of both cities. It is not entirely clear as to why this occurs. However, the major distinction between the general government vs. public works and agency-level data is that the former has a considerably larger number of cases. Therefore, the effects of non-incremental outlyers upon the means appear to be far more muted in the general government distributions. As a result, it appears that omitting such outlyers from the general government data too greatly reduces the incidence of non-incremental choice. This results in making the tests omitting such values less reliable indicators than the tests including all values. On the other hand, given their

relatively small number of cases, the public works and agency data are apparently better served by omitting their outlyers because they exert too great a weight in calculating the means.

Overall, the level of agreement generated by the two approaches in both cities combined is equal to 66.7 percent (thirty-two of forty-eight) when outlyers are excluded, and to 70.8 percent (thirty-four or forty-eight) when all values are retained. These levels improve when City B's public works data are excluded. It will be recalled that these particular distributions were uniformly flat and widely dispersed making them technically inappropriate for test of means analysis. In any event, excluding this category of data, agreement levels for both cities combined reach a 70.0 percent level (twenty-eight of forty) when outlyers are excluded, and a 77.5 percent level (thirty-one of forty) when they are not. Moreover, the agreement level for City B alone climbs to 81.2 percent (thirteen of sixteen) when the outlyers are maintained.

Admittedly, comparing the level of agreed-upon classifications between these two approaches does not constitute a scientifically sound test of the validity of either. Conversely, both approaches possess a degree of intuitive appeal as indicators of incremental and non-incremental budgeting. Accordingly, an assumption that their agreement may constitute a valid indication of type of decision process is not unreasonable.

Of course, such an assumption should not rest entirely upon intuitive reasonableness. Thus, at the least, it is appropriate to

demand some form of empirical test to determine whether the validity of these indicators can be disproven.

In response to this demand, an assumption was first made that if the two indicators were perfect indicators, then they should be in perfect agreement in classifying sets of data. Based on this assumption, it therefore follows that if there is a significant difference between the level of agreement generated by them and a perfect (or near-perfect) level of agreement, then the validity of the indicators (one or both) becomes suspect.

This in turn means that the following null hypothesis can be tested.

Null Hypothesis: If the level of agreed-upon classifications generated by the two indicators is not significantly different from a perfect (or near-perfect) level of agreement, then the validity of the two indicators is not disproven.

In order to test this null hypothesis, chi square tests of significant differences were employed. Since this test cannot be used when there are no cases in any cell, the "perfect agreement" column of all tables became a "near-perfect agreement" column wherein one disagreement was hypothesized. Aside from technical considerations, this single disagreement was justified on the grounds of permitting random factors to intervene at least once in the classification process. In other words, it was assumed that perfection, even for valid indicators, was less likely than near perfection.

Given the moderately sizeable number of cases required for a valid chi square test,[7] near perfect distributions were compared only to the cumulative data for an entire city; i.e., the organizational categories of each city were collapsed yielding an N per city of twenty-four (three organizational categories per city times eight funding change periods per organizational category). For most tables, this yielded a total N of forty-eight cases (twenty-four per city plus twenty-four hypothetical cases). However, since the public works data of City B is technically invalid for the test of means indicator, additional City B tables were constructed for which there was an N of thirty-two (sixteen cases per city plus sixteen hypothetical cases).

The results of these tests are reported in Table 8.

TABLE 8

IS THE ACTUAL LEVEL OF AGREEMENT BETWEEN THE TWO INDICATORS IN EACH CITY SIGNIFICANTLY DIFFERENT FROM A "NEAR-PERFECT" LEVEL OF AGREEMENT?*

	City A	City B	City B w/o Public Works
1. If adj. $R_S > 6.0$, then adj. $R_S = 0.0$	Yes	Yes	No
2. adj. R_S = adj. R_S	No	Yes	No

*Chi square tests were employed with the level of significance set at .05.

[7] The need for a fairly sizable number of cases becomes obvious when one considers the results of dealing only with the organizational category data. With a small N (16: 8 actual pairings and 8 hypothetical ones) requiring the use of the Fisher Exact Test, it was found that only actual distributions with three agreements or less were significantly different from a perfect (not near-perfect) distribution.

Disregarding City B with its public works data included, the table shows that when no outlyers are omitted, the actual level of agreement is not significantly different from the ideal. On the other hand, when outlyers are omitted, the results are mixed: no significant difference resulted in City B (without its public works data), but a significant difference did occur in City A. Therefore, it appears that agreements obtained omitting no outlyers are better indicators of type of decision process.

However, such a conclusion may be premature. As will be recalled, the "T of M" and "Two Rates" approaches generated consistently higher levels of agreement for the "general government" data when outlyers were retained, than they did when the outlyers were omitted. Conversely, when outlyers were omitted, they generated consistently higher levels of agreement for the public works and agency-level data. This suggests a possibility that, in City A, the "general government" data might have unduly depressed the level of agreement generated when outlyers were omitted.

Accordingly, the agreements found within City A's public works and agency-level data were compared to a near-perfect level of agreement. The resulting chi squares indicated that no significant difference occurred, with the outlyers omitted. However, a significant difference did result when the outlyers were retained.

This "differences spread" was viewed as so large as to make these tests pointless.

These findings suggest that, when organizational categories of data are being analyzed as to type of decision process, the methodology used here may be more valid if outlying R_S values are excluded when dealing with relatively small sets of R_S values. Conversely, when the organizational categories contain a relatively high number of R_S values, then the methodology may be more valid if the outlying R_S values are retained. Clearly, a failure to take the number of R_S values per category into account appears to increase the probability of mistaken, invalid conclusions.

In closing, two points must be stressed concerning the 'level of agreement' methodology. First, regardless of the test of "non-validity" just discussed, its acceptance as an indicator depends upon the acceptance of its definition of a non-incremental process: i.e., the idea that such a process is characterized by both a low rate of CC and a relatively high rate of NI. Ultimately, the acceptance of this definition rests only upon intuitive reasonableness. Thus, it can only be assumed to be valid, it cannot be proven so.

Secondly, even if we make this assumption, it must be stated frankly that the "level of agreement" methodology outlined here is still too unrefined to warrant immediate use. The margin of error (i.e., of disagreements between the "T of M" and "Two Tests" approaches) is quite high, ranging from 20 percent to 30 percent. Even if the two approaches are successfully capturing some dimensions of non-incremental processes, such a margin of error strongly suggests that one or both approaches is failing to capture other significant

dimensions. Accordingly, the "level of agreement" methodology is at best a crude tool for classifying decision processes, and, at worst, too error-prone to be considered sufficiently dependable.

In short, the fact that the two approaches agree to the extent they do suggests that types of annual decision processes can be classified. The fact that they disagree so often strongly indicates that more research is required.

The Correlations Between Funding Periods

This section will explore the statistical relationship between the annual funding change periods. For this purpose, Pearson's simple coefficients of correlation will be employed. This operation will not be used to demonstrate that the data is incremental, in the sense of change being small and marginal. A relationship between change rates (i.e., the R_S's) will shed no light upon this question, since such a relationship has less to do with the absolute size of the rates of change than with their relative magnitudes across time. Instead, the value of this procedure will be to establish the consistency (or lack thereof) of the funding priorities used by decision makers. That is, are the same programs doing better than others over time? Or is there a shifting pattern of "winners" and "losers"? Indeed, is there any pattern of priorities at all?

Table 9, on the following pages, presents the coefficients for the program areas of both cities. To maintain some continuity with the preceding section, the coefficients were calculated with R_S's

TABLE 9

PEARSON'S COEFFICIENTS OF CORRELATION FOR THE RATIO OF SHARES OF A GIVEN ANNUAL FUNDING CHANGE PERIOD (FCP) WITH SUCCEEDING ANNUAL FUNDING CHANGE PERIODS

	City A Public Works	City A Gen. Govt.
1. 1967/68 by 1968/69		
a. Data where if R_S 6.0, R_S = 0.0	.3871	.4196
b. Data when R_S = R_S	-.2861	.8858
2. 1968/69 by 1969/70		
a. Data where if R_S 6.0, R_S = 0.0	-.2205	.0114
b. Data when R_S = R_S	-.8740	.4044
3. 1969/70 by 1970/71		
a. Data where if R_S 6.0, R_S = 0.0	-.8904	-.1889
b. Data when R_S = R_S	-.9201	.2958
4. 1970/71 by 1971/72		
a. Data where if R_S 6.0, R_S = R_S	-.4312	-.1264
b. Data when R_S = R_S	.5954	.0540
5. 1971/72 by 1972/73		
a. Data where if R_S 6.0, R_S = 0.0	-.7172	.1611
b. Data when R_S = R_S	-.0875	.7412
6. 1972/73 by 1973/75		
a. Data where if R_S 6.0, R_S = 0.0	-.3651	.0562
b. Data when R_S = R_S	-.0988	.1499
7. 1973/75 by 1975/76		
a. Data where if R_S 6.0, R_S = 0.0	-.0507	-.3347
b. Data when R_S = R_S	-.6726	-.5217

TABLE 9--Continued

City A Agencies	City B Public Works	City B Gen. Govt.	City B Agencies
.1830	.7598	.5272	.4983
.9809	.7160	-.1246	.8056
.5936	-.7764	.2649	.6813
.8859	-.7764	-.7918	-.6734
-.7013	.8448	-.5165	-.5565
.7680	.5190	-.5030	-.5580
-.2990	-.3914	.0702	-.2567
-.2990	-.1653	.0854	-.2611
.3759	-.1538	-.3041	-.0802
.3759	.2450	.4905	-.1354
-.6037	.6803	-.2427	-.1389
-.6037	.6469	.4566	-.7071
.4075	-.6054	-.8403	.4732
.4075	-.6779	-.2414	-.5750

greater than 6.00 omitted (i.e., if $R_S > 6.00$, then $R_S = 0.00$) and with no values omitted or modified (i.e., $R_S = R_S$). Since Pearson's r's are particularly sensitive to the weighting problems posed by outlyers, it should be borne in mind that the relationships with values omitted are probably the better estimators of the overall, relative similarity between sets of R_S's. On the other hand, the coefficients omitting no values provide us with useful information concerning the fate of outlying programs which constitute the high or low priorities of any given funding period.

Table 9 provides us with evidence of a highly fluctuating pattern of decision making. Both in terms of the direction and the strength of relationships, no pattern emerges within the program areas of either city which holds for the entire time period (1967-1976). In City A, 50 percent of all coefficients are positive and 50 percent negative. For City B, 45.2 percent and 54.8 percent are positive and negative, respectively. As for strength of relationships, only 23.8 percent (ten of forty-two) of all of City A's coefficients exceed a .70 level, while only 21.4 percent (nine of forty-two) of City B's coefficients do the same. Of these "strong" relationships, 70.0 percent (seven of ten) of City A's and 55.6 percent (five of nine) of City B's occurred when correlating the data with outlyers included (i.e., when $R_S = R_S$).

Moreover, from the 1967/68 funding period through the 1971/71 period (i.e., rows 1 to 3 in the table), 80 percent (eight of ten) of City A's "strong" coefficients and 77.8 percent (seven of nine) of City B's are found. The obvious similarity of these results suggests

the possibility of a common event which affected both cities at this time. Such an event did in fact occur. From 1967 to 1970, the state government phased out the welfare operations of municipalities and consolidated them at the state level. This resulted in a considerable amount of freed funds which city officials were able to invest as they best saw fit.

The impact of these "welfare bonus" budgetary choices varies from program area to program area and from city to city. Both with outlyers omitted and with outlyers included, more than forty percent of these coefficients possess negative values, suggesting in varying degrees reversals or marked changes in one year's priorities with the next. Conversely, the positive coefficients indicate varying degrees of priority continuity from one year to the next, but only eight of a total of twenty positive coefficients exceed a .7 level of relationship and therefore could be considered strong. Moreover, every organizational category of data contains either one or more negative coefficients and/or very low positive coefficients, both of which indicate priority shifts. In short, the general pattern of priorities even during this "welfare bonus" period is highly unstable.

For the most part, we see the strength of the coefficients declining rather dramatically for both cities in item 4. The incidence of moderate-to-strong relationships becomes much more sporadic from this point on. Moreover, the pattern of the direction of the relationships continues to be quite random. Priorities are weakly-to-moderately

reaffirmed from one funding period to the next, or they are weakly-to-moderately reversed.

The general picture that emerges from Table 9 is principally one of shifting priorities. At times, the same priorities are continued from one funding period to the next, but seldom are the same priorities maintained for longer than three such periods. Sometimes, the decision makers appear to alternate their high and low priorities, thereby producing moderate-to-strong negative relationships between periods. In still other instances, the major "winners" and "losers" occur randomly, resulting in relationships of little strength. Different decision strategies are suggested, but with no one strategy consistently dominant.

Concluding Remarks

In this chapter, a hypothetical model of an ideal incremental process was discussed. On the basis of the model, a modified t test for significant differences between obtained and ideal means was developed. Overall, the tests appear to be somewhat useful in differentiating between incremental and non-incremental decision processes. However, the particular nature of a given distribution is capable of producing misleading conclusions, thereby raising doubts about the utility of the tests.

In light of this problem, an alternate methodology was developed in which incremental and non-incremental decision processes were indicated by the agreement in classification made by the "T of M" and "Two

Tests" approaches. Assuming that an incremental process could involve a number of non-incremental decisions equal to or greater than the number found in a non-incremental process, this technique suggested that the key distinction between the two was that a non-incremental process combines a relatively high rate of non-incremental choice with a more dispersed pattern of incremental choices than is the case in an incremental process. Put another way, many incremental decisions of non-incremental processes tend to be relatively borderline in their classification as incremental. Unfortunately, the level of disagreement generated by comparing the "T of M" and "Two Test" approaches suggests that more research is necessary before a strongly dependable indicator of decision-process types will be available.

Finally, the chapter concluded with an analysis of priority patterns in funding, using simple coefficients of correlation for this purpose. To reiterate, funding priorities in both cities appear to be quite variable, with coefficients shifting in terms of both strength and direction of relationship from year to year.

In the next chapter, an analysis of the role patterns and decision rules found in both cities will be provided. As will be seen, this chapter will serve as a necessary prerequisite for Chapter IV, where the major hypotheses presented in Chapter I will be tested.

C H A P T E R I I I

GENERAL PERCEPTIONS OF THE BUDGETARY PROCESS IN CITY A AND CITY B

Introduction and Methodological Considerations

This chapter's purpose is to determine whether budgetary participants in Cities A and B perceive their actions in terms compatible with the incremental model as defined by the works of Wildavsky, Anton, and Crecine.

For this purpose, a number of public officials in both cities were interviewed, and their responses classified and placed within various frequency distribution tables. The chi-squared test was employed to determine whether significant variation occurred between the response patterns found in the two case cities. In addition, chi-squares were also tabulated to see if the response patterns of each city were significantly different from an arbitrarily defined "ideal incremental" response pattern. These methodological procedures are discussed in more detail below.

The respondents were selected program and departmental heads, both chief executives, both budget directors, and both council presidents. All of these, except for one council president and one budget director, were part of a randomly chosen stratified sample, the design and purpose of which will be discussed in the next chapter. In all, twenty officials in City A and twenty-three officials in City B were interviewed. The breakdown of these officials by general

category is presented in Table 10. A complete listing by position title is found in Appendix C.

TABLE 10

INTERVIEWEES BY GENERAL CATEGORY

	City A	City B
a. Overview Officials	3	3
b. "General Government" Program Heads	9	10
c. Public Works Program Heads	4	4
d. Agency Heads	4	6
	N=20	N=23

Each of these individuals underwent an interview based on a three-part questionnaire. The first part employed a combination of open-ended questions and agree/disagree statements designed to solicit their impressions on the budgetary behavior, roles, and goals characteristic of different categories of actors. The second part consisted of additional agree/disagree statements which concerned the use of selected incremental decision rules within the budgetary systems of both cities. Finally, in the third part, interviewees were asked about specific budget decisions for their own programs or agencies during FY1975 and/or FY1976. The interviews were conducted during the Spring and Summer of 1976 and each lasted between one and two hours apiece. A facsimile of the questionnaire is presented in Appendix D.

The results of the third part of the questionnaire will be the subject of the following chapter. Here our concern is with parts one and two, which is to say, with the respondents' general perceptions of budgetary decision making.

This perhaps artificial division between general perceptions of decision making and specific memories of particular choices was based on methodological considerations. As noted in Chapter I, "role-system" incrementalists have employed interview and participant-observer approaches in order to develop a general overview of how budgetary decisions are typically made. Such researchers have concluded that decision making behavior overwhelmingly conforms to the incremental model.

This somewhat impressionistic finding was not, unfortunately, bolstered by attempts to develop defensible, operationalized definitions of incremental choice. Consequently, there has been a general and unavoidable failure to determine empirically whether, and to what extent, these presumedly incremental systems actually produce a predominance of incremental decisions. Hence, we are left with the rather fuzzy impression that virtually all choices are incremental, and left without any sense of the factors which operate against such choice (or of the frequency that such factors occur).

Accordingly, the failure of the "role-system" incrementalists has been to study budgetary choice in a way which gives us a helpful, highly generalized grasp of budgeting, but which fails to develop a methodology for determining the validity and limitations of their

model's application. It is, of course, these latter failures which this work hopes to correct.

However, these "corrections" will be of little use unless we first ascertain whether (and to what extent) the two cities under study here possess behavior patterns, role systems, goals, and decision rules compatible with the incremental model. If the ultimate purpose of this work is to elaborate and improve upon the methodologies employed to study budgeting, it seems well advised to determine whether the cities under review are "typically" incremental or yet-to-be defined deviant (i.e., non-incremental) cases. Therefore, before turning to an examination of the specific choice data, this chapter will present findings concerning participants' perceptions of budgeting as generally or typically practiced.

Evidence from the preceding chapter offers some support for the assumption that budget choice in both cities is largely incremental in nature. As we saw there, funding decisions for most years tended to cluster around an adjusted R_S of 0.00, thereby indicating that most programs and agencies receive annual funding changes which are relatively close to an ideal "fair share" of revenue increases.

However, such evidence provides indirect support at best. Funding choices within the constraint of the general availability of revenues suggest the possibility of an incremental budgeting system. However, by themselves, they do not prove its existence. An incremental budgeting system consists not only of a high incidence of (presumedly) incremental decisions, but also of incremental behaviors,

goals, and decision rules. In other words, it is conceivable that incremental outputs (i.e., relatively small, marginal changes) could flow from budgetary processes which, strictly speaking, fail to conform to the incremental model.

Accordingly, our attention now turns to these other components of an incremental budgetary system. The next section provides us with a brief comparison of both cities' formal budgetary processes. This short section will be followed by a much longer one in which a model of municipal incremental budgetary systems will be developed and explained. Here, the behavior patterns, roles, and goals of various actors in such systems will be defined in accordance with the findings of previous research. Moreover, the elaboration of this model will provide the reader with a clearer understanding of why various questions were asked during the interviews. Finally, the results of the interviews will be discussed, and the response patterns of the two cities on each item will be compared to each other and to an "ideal" expected response pattern. A brief summary of these findings is provided at the end of this chapter.

The Formal Budgetary Processes

Although the two cities possess different governmental forms (City A has a strong mayor system while City B has a council-manager system), there appears to be little substantive difference in the budgetary authority possessed by their chief executives or in the mechanics of each city's budgetary process.

In the late fall, budget instructions and forms are issued by the chief executive's office to each department. After a period of internal review and, as necessary, in-house coordinating meetings, departmental estimates are formulated. These budget requests consist of budgets for sub-units (or programs), if applicable, and are broken down into the broad line-item categories of salaries, ordinary maintenance and supplies, and capital budgets.[1] Normally, only capital requests are prioritized by their perceived importance. Moreover, since the capital budget is funded by bond versus general revenues, such funding decisions are dealt with as ". . . a generally independent problem . . .," separate from the general fund or operating budget.[2]

By the end of January, the agency estimates are submitted to the chief executive, along with descriptive justificatory material. Following the submission of the estimates, the chief executive and his budget staff review them and then initiate a series of closed meetings with each department head. At these meetings, items may be challenged, justified, modified, or cut altogether. Although department heads may request follow-up meetings in order to appeal the decisions made at this time, these initial meetings generally serve to provide each administrator with a fairly clear idea of what his/her area can expect for the next year's funding.

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[1]These categories are the same as those used in Pittsburgh, Cleveland, and Detroit. See Crecine, Governmental Problem-Solving, p. 40.

[2]Ibid.

At the conclusion of these meetings, the executive budget is formulated and printed. The precise time for its release to the city councils varies between the two communities. In City A, the city council must be given the executive budget no less than ninety days before the end of the fiscal year (i.e., by roughly the beginning of April at the time of this research). City B's council must receive the document by no less than forty-five days (i.e., the middle of May) prior to the fiscal year's conclusion.

During these legislative review periods a series of open public hearings are held at which time councilmen, the media, and the public-at-large may question, support, or challenge the need for various proposed expenditures. Interestingly, the councilmen are not required to attend these sessions, and, reportedly, a majority in City A frequently failed to do so.

Following these "question hour"-like meetings, the council then engages in a second series of business meetings at which time the final budgets for each department are enacted. Neither council possesses an independent budget staff. Indicative of the strong-executive charters in both cities, the councils have the power only to cut or to accept executive budget proposals. They are forbidden by charter to increase funding over the level "recommended" by the chief executive.

Like most other cities, a major constraint on budgetary choice in both cities is the problem of "uncontrollable expenditures."[3] A

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[3]Aaron Wildavsky, Budgeting: A Comparative Theory of Budgetary Processes (Boston: Little, Brown and Co., 1975), p. 114.

full 60 percent of respondents in both cities (twelve of twenty in City A; fourteen of twenty-three in City B) volunteered remarks on this subject during the course of the interviews. Aside from inflation, two of the other most frequently cited sources of this problem stemmed from legally-mandated organizational procedures. The most important of these was the collective bargaining process which has been mandated by state law. The second source, also imposed upon the cities by the state, involved the local departments of education.

Absorbing over 30 percent of all locally-controlled general revenues in both cities, the school systems possess largely autonomous budgetary processes in which funding decisions are made by independently elected boards of education. Somewhat peculiarly, while possessing the power to make authoritative budget choices, such boards lack autonomous taxing powers. Consequently, they must send their budgets to the cities, and the cities in turn are required to provide the full amount demanded, regardless of the implications these demands have for other municipal services. This rather advantageous position within the budget process is, however, presumedly constrained by the presence of each city's chief executive during the boards' budget hearings. While possessing only the advisory powers of an ex officio member, the chief executives do attempt to warn the boards of the impact of their decisions upon the tax rates and/or other services. The general impressions of both chief executives was that the boards reacted "reasonably" or "responsibly" to their "advice." However,

many other respondents in the two communities clearly viewed the school departments as a problem or with distrust.

To summarize, we have seen that the formal budget processes of both cities are quite similar, with some minor exceptions. Since the chief executives initiate the process, have the power to increase as well as maintain or cut budget requests, possess budget staffs, and serve as the single major constraint upon the departments of education, it is evident that their formal (and informal) authority is potentially greater than that exercised by the city councils. Like most other cities, City A and City B are plagued by the problem of "uncontrollable expenses," a problem due not only to inflationary forces, but also to externally imposed organizational procedures like collective bargaining.

An Incremental Model of Municipal Budgetary Systems

> An incremental approach to budgeting usually is described by a short time perspective and, essentially, as a maintenance of the basic budget.[4]

Wildavsky captures here two essential aspects of incremental budgetary systems. But like most short definitions, it conceals more than it reveals. Such budgetary systems consist of a sizable number of interlocking facets. Perhaps because of this complexity, budgetary incrementalism is highly adaptable to a variety of organizational conditions ranging from the cabinet-dominated government of the

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[4] Ibid., p. 127.

United Kingdom[5] to the city-manager system of Oakland, California.[6] And yet, despite their variations, incremental systems possess more similarities than differences.

The combination of the complexity of its shared elements and the particularism of its manifestation in different levels of governments makes the expression of a general, all-encompassing model of budgetary incrementalism quite difficult. For this reason, the discussion below will focus upon developing a general model applicable to American municipalities.

As a first step in developing this model, a logical starting point is with the basic components of incremental budgeting systems. Based on a review of the literature, such systems appear to share four common characteristics: (a) constraints on decision making create a need for (b) simple and simplifying decision rules which are employed with (c) well-entrenched role systems resulting in (d) decisional outputs which represent limited, marginal change from the status quo.

Two points about these elements should be kept in mind. First, in practice, they are tightly interwoven. Thus, their interaction is not as simplistically linear as it appears above. In other words, their separation into distinct components is an artificial separation

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[5]See Hugh Heclo and Aaron Wildavsky, The Private Government of Public Money: Community and Policy Inside British Politics (London: The Macmillan Press, Ltd., 1974).

[6]See A.J. Meltsner and A. Wildavsky, "Leave City Budgeting Alone! A Survey, Case Study, and Recommendations for Reform," in J.P. Crecine (ed.), Financing the Metropolis (Los Angeles: Sage Publications, Inc., 1970), pp. 311-358.

which aids analytic clarity, but which over-simplifies the complex reality of their actual operation.

A second point to remember is that the components developed here are solely those of the author. In all likelihood, other analysts might break the system down in other ways and/or add or subtract categories. However, for the purposes of this discussion, the above classification is viewed as adequate.

Constraints on Decision Making. Within the municipal context, the constraints on decision making may be sub-divided into analytic and institutional constraints. In part, analytic constraints include such universally present problems as shortages of time and money, and the cognitive limitations on the human capacity to define and analyze alternatives.[7] In addition, analysis at the municipal level is further constrained by the simple lack of trained analysts.[8] Together, these limitations on analysis mean that complex issues, problems, and calculations must be dealt with in a relatively simple, non-analytic, and non-theoretical manner.[9] Consequently, analytically-constrained budgeting systems have come to rely upon widely used, but largely inarticulated "decision-rules." These serve to simplify the problem

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[7]This point is stressed in Lindblom, "Muddling Through," p. 84; in Wildavsky, Politics, p. 10; and in Crecine, Governmental Problem-Solving, p. 41.

[8]See Wildavsky, Budgeting, pp. 116-117; and Crecine, Governmental Problem-Solving, p. 41.

[9]The classic formulation of this conclusion is found in Lindblom, "Muddling Through," p. 81.

of the decision maker and may result in simplified (and perhaps simplistic) decisions.[10]

A second important sub-type of constraints on decision making are institutional in nature. These appear to reinforce and to supplement the effects of the analytic constraints. One form of such constraints are bureaucratic routines. The inability to effect adequate analysis of complex problems leads to a general reliance upon not only simple decision rules, but also upon intra-organizational routines.[11] Such routines serve to provide a sense of certainty and predictability among participants and thus aid in reducing role anxiety, conflict, and confusion with the process.[12] However, the annual repetition of these routines results in the psychological entrenchment of both the incremental decision rules and the routinized behaviors (i.e., roles). As a result, reform of budgetary systems as a whole becomes highly difficult,[13] and the capacity to engage in non-incremental and/or innovative decisions becomes quite limited.[14]

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[10] E.g., see Crecine, Governmental Problem-Solving, p. 219.

[11] See Crecine's discussion of "Governing by Precedent," Governmental Problem-Solving, p. 41; and also Allen Schick's discussion of "The Routine of Budgeting," in his Budget Innovation in the States (Washington: The Brookings Institution, 1971), pp. 206-208.

[12] See Wildavsky's discussion of role systems as "a firm anchor in a sea of complexity," in his Politics, pp. 160-161.

[13] Schick, Budget Innovation, pp. 206-208.

[14] Anton, Expenditure in Illinois, p. 202.

In addition to the development of bureaucratic routines, another institutional constraint on decision making characteristic of municipalities is the revenue constraint, a problem for urban budgeting equally emphasized by Anton, Crecine, and Wildavsky.[15] The causes of this constraint are at least twofold. On one hand, cities are almost universally required by state mandates and their charters to produce balanced budgets. Thus, expenditures must be equal to or less than revenues. On the other hand, the structure of urban taxes, especially the property tax, generally prevents city revenues from keeping pace with inflation, thereby necessitating annual decisions to raise tax rates. However, since such raises are politically unpopular, municipal leaders are inclined to keep such tax hikes as small as possible (i.e., to "hold the line on taxes").[16] Thus, not only must expenditures be balanced against revenues, but a combination of economic and political forces operate against the availability of easily expanded revenues. As a result, expenditure growth becomes tightly constrained by slow revenue growth.

To use a phrase Wildavsky coined in another context, the consequence of this revenue constraint is not simply incrementalism, but

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[15]Thomas J. Anton, Budgeting in Three Illinois Cities (Urbana: Institute of Government and Public Affairs, University of Illinois, 1964), p. 18; Wildavsky, Budgeting, p. 117; and Crecine, Governmental Problem-Solving, p. 219.

[16]Crecine, Governmental Problem-Solving, pp. 39-40; Wildavsky, Budgeting, pp. 10-11.

"incrementalism with a vengeance."[17] In Anton's opinion, this constraint means that

> . . . the first step (in budgeting) . . . is to determine how much money will be available, rather than how much will have to be spent. In effect, this forces local officials to think of their "budgets" as nothing more than a representation of "what we did last year" or "what we are doing now."[18]

Similarly, Crecine remarks that,

> "Last year's" budget represents a sort of equilibrium solution to the municipal resource allocation problem. . . . "This year's budget" represents marginal adjustments to "last year's" solution to obtain "this year's" solution.[19]

In short, the impact of the revenue constraint upon municipal expenditure decisions is that such decisions tend to be far more incremental (i.e., marginal, and non-innovative) than are the decisions made by the federal and some state governments.[20] As stated by Wildavsky

> Although (municipal-level) participants will argue for marginal increases, no one expects there to be enough money for a dramatic change in any particular budget. The acceptance of the "no-money" premise reinforces . . . incremental budgetary behavior.[21]

Incremental decision rules. What constitutes the "incremental budgeting behavior" cited by Wildavsky above? First, there is the widespread employment of incremental decision rules. Against the backdrop

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[17] Heclo and Wildavsky, Private Government, p. 238.

[18] Anton, Three Cities, p. 18.

[19] Crecine, p. 219.

[20] Wildavsky, Budgeting, pp. 10-11.

[21] Ibid., p. 120.

of analytic and institutional constraints on budgetary choice, a considerable number of decision rules have developed which are common to incremental systems generally. Among the many reported by various observers, the following list cites several which seem to be among the most fundamental:

1. Base funds (i.e., the previous year's budget) are seldom analyzed or even questioned. Consequently, line managers can generally expect to receive at least the same amount of funds for a coming year as they did for the year previous to it.[22] This is the "safe base" rule.

2. The focus of decision makers tends to be upon budgetary "margins"; i.e., upon requests for increases in expenditure categories.[23] We will call this the "increase focus" rule.

3. In light of the constraints on analysis, most agencies can expect roughly the same percentage increase as others. In other words, most agencies can expect a "fair share" of additional available revenues to be added to their budget "base."[24] This we will call the "fair share" rule.

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[22]Wildavsky, Politics, p. 17.

[23]Crecine, Governmental Problem-Solving, p. 41, pp. 62-63, and p. 73; Wildavsky, Politics, pp. 14-15.

[24]Wildavsky, Politics, p. 17. See also Crecine's reference to "reasonable share," Governmental Problem-Solving, p. 39. It must be acknowledged that Crecine rejects the validity of his own definition of "fair share," which was that ". . . over time . . . each department's fair share of the budget total increases is constant . . . ." That he rejects this rather peculiar and quite rigid definition is not surprising. See Ibid., p. 207.

4. In light of both analytic and institutional constraints on budgetary choice, there is a strong tendency for decision makers to make decisions which maintain the "status quo" in regards to the provision of services and programs. In other words, incrementally-inclined decision makers tend to maintain on-going services as opposed to taking the time and/or risks to explore or implement innovative alternatives.[25] We will label this the "maintenance" rule.

5. Given the fair share rule and the maintenance rules, decision makers will tend to provide marginal increases to the previous year's allocations of most departments.[26] This will be called the "marginal growth" rule.

Undoubtedly, other decision rules of a general nature could be added. However, these five are felt to encapsulate the most basic and essential rules which result in incremental-type decisions.

Many other frequently used decision rules have a role-specific as opposed to a general nature. Accordingly, our attention now turns to these roles.

The incremental role system. Like other incremental role systems, the one characterizing urban governments may be broken down into the distinctive roles played by the occupants of different organizational

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[25]See Crecine's remarks on "historical inertia" in Ibid., p. 241; also see Anton Expenditure in Illinois, p. 180, and Wildavsky, Budgeting, p. 120.

[26]Such growth is assumed to be a function largely of inflation and salary boosts; see Wildavsky, Budgeting, p. 117.

positions; i.e., into the roles played by the chief executive and his budget staff (if any), the legislature (i.e., city council), and the agency heads. A key point to remember regarding these roles is that they only provide us with broad guidance as to how specific actors might respond to a particular situation. As Anton notes, ". . . none of the roles are so precisely defined as to determine the exact nature of their (i.e., the participants') reactions."[27]

With this caveat in mind, let us proceed to the first actor in the municipal process: the chief executive. The centrality of this position within the municipal budgetary process has been demonstrated by both Crecine and Wildavsky.[28]

Although some variations in his budgetary power have been found,[29] it appears that municipal chief executives are a dominant decision-making force within their realms.

Within the municipal context, the chief executive often armed with a small budgeting staff fulfills the function of a central review agency. In the view of a number of authors, such agencies universally fall into the role category of budget cutters versus

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[27]Anton, Expenditure in Illinois, p. 194; also Wildavsky, Budgeting, p. 9.

[28]See Wildavsky, Budgeting, p. 128; and Crecine, Governmental Problem-Solving, pp. 38-39.

[29]One recent study argues that city councils pursue a far more active role in budgeting than suggested by Wildavsky or Crecine. See Lewis B. Friedman, Budgeting Municipal Expenditures: A Study in Comparative Policy Making (New York: Praeger Publishers, 1975), pp. 76-80.

spenders.[30] As Schick expressed it, "there is so much built-in pressure for expansion that there must be a specialized agency with the task of saying 'No'."[31]

This "cutter" role can also be related to the special revenue constraint confronting American cities. In the words of Wildavsky,

> Since it is difficult to discover painless methods of raising money, top (municipal) officials have every incentive to hold down expenditures. Their motivation is clear: the more they can cut, the less they have to worry about finding new sources of revenue.[32]

However, the role of urban chief executives extends beyond that of mere cutter. In his comparative study of Cleveland, Pittsburgh, and Detroit, Crecine points out that

> The . . . (chief executive's) problem is largely one of recommending a budget that (1) is balanced, (2) at least maintains existing service levels, (3) provides for increases in city employee wages if at all possible, and (4) avoids tax increases (especially property tax increases in the belief that increased property taxes cause business and industry to move from the city, reducing its tax base).[33]

Thus, at its core, the role of the chief executive involves efforts to balance tax restraint against service maintenance.[34] In a

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[30] E.g., see Wildavsky, Budgeting, pp. 7-8; and Schick, Budget Innovation, pp. 174-175.

[31] Schick, "Control Patterns in State Budget Execution," Public Administration Review 24 (June 1964), p. 99.

[32] Wildavsky, Budgeting, p. 118.

[33] Crecine, Governmental Problem-Solving, p. 30.

[34] As noted earlier, both salaries and the "cost of doing business" rise each year. Therefore, the costs of maintaining services also rises. This, in turn, means that the simplest strategy of "holding the line on taxes," which is to maintain a constant budget, cannot

world without inflation and other economic forces such as stagnation, this might be a simple task. However, such a world does not exist. To maintain services, expenditures must rise. And yet to forestall both political and economic calamity, tax hikes must be minimized.

Clearly, in order to fulfill both of these objectives, the chief executive is scarcely able to be an axe-wielding cutter. No doubt, chief executives are cutters, but in line with the "marginal increase" rule, their cutting bias must be limited if they are to satisfy the "service maintenance" rule. After all, to eliminate all increases means a cut in real spending power and thus a reduction in services. Hence, it seems likely that urban executives follow Wanat's scheme by cutting requests for increases due to non-inflationary reasons, while generally allowing those due to inflation.[35] Accordingly, both taxes and expenditures gradually rise, so long as the chief executive clings to the dual and conflicting goals of tax restraint and service maintenance.

In light of this scenario, the role of the chief executive within an incremental municipal budgeting system will be labelled as "revenue/service balancer." This rather unwieldy term is felt to be more descriptive than the simpler label of "budget balancer" suggested by Anton and Wildavsky.[36]

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be pursued, unless city officials are willing to permit services to deteriorate.

[35]Wanat, "Bases of Incrementalism," p. 1225.

[36]Anton, "Roles," p. 34; Wildavsky, Budgeting, p. 118.

Turning now to the role of municipal legislatures, it is here that we find the most marked difference between the role systems of urban and federal budgetary processes. From the writing of Fenno and Wildavsky, it seems evident that the Congressional Appropriations Committees are the most decisive and powerful actors in the determination of federal expenditure decisions.[37] Indeed, in Anton's study of state budgeting, the legislative Budget Commission seems at least as powerful as the Governor, in practice if not in potential.[38] Such is not the case at the municipal level. Here, what Wildavsky has labelled as "executive dominance" seems the rule,[39] with the role of the typical city council largely confined to that of a "rubber-stamp" for the executive budget.[40]

In part, this "legislative subservience" can be explained because city councils, unlike their federal and (sometimes) state counterparts, lack the greater time, manpower, staff support, and (as in the case of Cities A and B) legal authority characteristic of (some of) these others. As Crecine points out, "because of the complexity and detail in the mayor's budget and lack of council staff, the council's

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[37]Wildavsky, Politics, pp. 53-54; Richard F. Fenno, Jr., "The House Appropriations Committee as a Political System: The Problem of Integration," American Political Science Review 66 (June 1962), p. 323.

[38]Anton, Expenditure in Illinois, pp. 184-185.

[39]Wildavsky, Budgeting, p. 128.

[40]See, ibid.; and Crecine, Governmental Problem-Solving, pp. 99-101.

options are limited largely to approving the . . . (chief executive's) budget."[41]

Of course, other factors can be suggested which support the council's rubber stamp orientation. Assuming that it is generally expected that the chief executive will both balance the budget and maintain services, and assuming further that most councilors possess at least a partial grasp of the various constraints on choice confronting the city, then it seems plausible that councils have little reason or stake to seek deeper involvement in the process. Unlike the better and more massively financed Federal government, there is far less room for innovation and far more emphasis on relatively routine decisions at the municipal level. Thus, unless the executive is failing to do an adequate job at "holding the line on taxes" while maintaining services, the council members have little substantive reasons to intervene on a regular and active basis. Accordingly, the council would tend to pursue a "rubber-stamp" orientation.

Virtually all studies concur that the role of agency heads within incremental systems is that of "spender" or "advocate," regardless of level or type of government.[42] In brief, this role may be defined as a set of actions undertaken by service area managers (a) to insure the maintenance of on-going services at least at current levels

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[41]Ibid., p. 39.

[42]Wildavsky, Politics, p. 18; Wildavsky, Budgeting, pp. 120-21; Crecine, Governmental Problem-Solving, pp. 38-39; Schick, Budget Innovation, pp. 170-72; and Anton, State Expenditures, p. 184.

and (b) if possible to obtain additional funds to permit expansion, service upgrading, or small-scale innovation.

In addition to this maintenance/growth orientation, however, is a third and conflicting goal, the development and preservation of trust and credibility with the central review authorities (be they executive or legislative in nature). The implication of this "trust" goal is that "agencies do not usually request all the money they feel they could . . . use . . . (because) no one will trust an agency that repeatedly comes in too high."[43]

Thus, in light of these conflicting goals, the "advocate" role as exhibited at the municipal level is probably compatible with the description provided by Crecine.

> The problem is generally considered by department heads as compiling a budget request that (1) assures the department of funds to carry on existing programs as part of a continuing attack on existing problems, (2) is acceptable to the (chief executive's) office, (3) and provides a reasonable share of any overall budget increases to the department to enable it to attack new problems (if any).[44]

What prompts agency heads to adopt this "advocate's" role? In part, the role is undoubtedly an outgrowth of what Wildavsky refers as "the interaction between spending and cutting roles . . . ."[45] In short, just as the chief executive expects the agencies to submit budgets that must be cut, so too do the agency heads expect to be cut

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[43]Wildavsky, Politics, p. 21.

[44]Crecine, Governmental Problem-Solving, pp. 38-39.

[45]Wildavsky, Budgeting, p. 7.

and therefore pad their budgets. This form of preemptive behavior may presumedly be linked to their desire to maintain their services and to establish premises for the possibility of growth. As Anton notes,

> Failure to ask for more money . . . represents a serious challenge to existing role definitions and, as a result, occurs only infrequently. Agencies continue to request increases, in short, because cuts have to be made.[46]

Of course, the advocate's role involves more than this simple and mechanical interaction between spenders and cutters. It must be recalled that an administrator's power, status, and future ambitions hinge upon the power, status, and growth of the department he heads. As Anton notes in another piece,

> To request a smaller budget than the current budget is to suggest that the job being done by the agency is not sufficiently important . . . and that the administrator in charge of that job is not sufficiently aggressive (or competent) to make the claim.[47]

Thus, a combination of social and psychological forces come to bear upon department heads to be advocates. If they respond appropriately to these forces, they receive the positive reinforcements of maintaining and/or expanding their services, of obtaining the trust and respect of their superiors, and of receiving the gratifications of high status, (perhaps) power, and good career prospects. Failure, on the other hand, to play the advocate can damage not only the department's capacity to provide services, but may also result in lowered esteem

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[46] Anton, Expenditure in Illinois, p. 184.

[47] Anton, "Roles," p. 99.

and diminished career prospects. Accordingly, it seems quite likely that the program and agency heads to be interviewed will be advocates.

To summarize our expectations on the role systems likely to be found in Cities A and B, the chief executive will be a revenue/service balancer who will fulfill these conflicting goals by engaging in limited cuts from requests for funding increases; the program and agency heads will be advocates who seek to maintain or expand services by padding their requests, but who also want to establish trust and credibility with the chief executive, and therefore defer from over-padding; and the city councils will be rubber-stamps for the executive budget due to their lack of knowledge, time, and staff support.

Incremental outputs. What sort of impact should the constraints on decision making, the use of incremental rules, and the presence of an incremental role system have upon budgetary decisions? Obviously, they should be incremental in nature; i.e., funding decisions which provide relatively small, marginal increases, the size of which are largely determined by the interaction of the safe base and fair share rules with the revenue constraint.[48] Unfortunately, because of the

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[48]It should be noted again that the operationalized definition of an incremental decision provided by the R_S formula makes no assumption about whether such a decision will comprise a "small, marginal" percent to be added to or subtracted from a budgetary base. Its primary focus is upon the notion of a "fair share." Consequently, if the amount of revenue to be added to (or subtracted from) the previous year's expenditure "base" is large, the "fair shares" should be large as well. However because of the assumption concerning the "revenue constraint" which confronts municipalities, incremental decisions at the municipal level will indeed constitute "small, marginal" shifts.

failure of the "descriptive" incrementalists to adequately operationalize this concept of incremental choice, such a definition is largely a matter of assumption. Whether or not such types of decisions actually predominate as the output of presumedly incremental budgetary systems will be discussed in Chapter IV.

For the present, let us turn now to an examination of the two case cities and of the results of the interviews conducted in them.

Decision Rules and Budgetary Roles in Cities A and B

As indicated in this chapter's introduction, the questionnaires administered in each city were explicitly designed to examine decision rules and role systems. The omission of items designed expressly to explore the presence of the constraints was purposeful. First, as developed in the literature, some of the constraints, such as the revenue constraint, are seen as underlying reasons for the existence of the rules and roles. However, it is conceivable that such preconditions might exist without giving rise to incremental budgeting.[49] The precise nature of the causal linkages is frankly rather cloudy, largely because they are difficult to prove and because there may be a number of other unperceived causal and/or intervening factors which

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[49]For example, Wildavsky notes that "third world" nations also are plagued by a revenue constraint. However, in such cases the problem is compounded by a high degree of uncertainty as to how much revenue to expect in any given year. Lacking this "touchstone," such nations are prone to engage in highly speculative, "unrealistic" budgeting, budgeting which tends to be quite non-incremental. See Wildavsky, Budgeting, Chapter 7 passim.

should also be included. Ultimately, the "real proof of the pudding" that an incremental budgeting process exists is that incremental decision rules and incremental role systems are present. Accordingly, the questionnaire sought to focus upon these essential ingredients.

This consideration strongly reinforced a second, more technical concern. As the questionnaire was developed, it became obvious that the interviews would be fairly lengthy. Consequently, since the interviews were to be conducted with public officials while they were at work, explicit questions concerning the constraints and their impact were deleted in order to minimize the time burden requested of the subjects. In short, the questionnaire was shortened and focused on more essential matters in the hopes of minimizing hostility and/or unresponsiveness.

This is not to say that the constraints are entirely ignored. Constraints such as bureaucratic routines are essentially comprised of routinized decision rules and behavior patterns (i.e., roles). Since these were the focus of the questionnaire, considerable information concerning them was obtained. Moreover, as part of the research on roles, the subjects were asked about the goals of different actors within the process. As shall be seen, considerable, if indirect support for the presence of a revenue constraint was obtained through such questions.

All officials originally slated to be interviewed were in fact interviewed, although in one important case, the chief executive in City A, the interview consisted of an initial short, interrupted

session, concluded by an exchange of letters. The quality and nature of the responses varied considerably, ranging from the detailed to simple shrugs of the shoulders. In order to build rapport with the interviewees and to maintain a true record of their responses, little or no pressure was applied to obtain a response when the individual demonstrated a lack of either knowledge or willingness. Terms and concepts were clarified for them upon request. However, the incremental model was never discussed nor were the respondents given any indication as to the "correct" or desired answers to any of the items. Respondents were often asked to clarify and/or elaborate their answers, as was thought necessary.

As noted, the interview items were formally divided into open-ended questions and agree/disagree statements. However, many respondents treated both types of items as open-ended questions and thus frequently volunteered comments to support their responses to the agree-disagree statements. These unsolicited remarks were duly recorded. For the most part, they constituted elaborations to themes touched on during the open-ended questions.

Additional methodological considerations, pertinent to the treatment of the different types of data, are presented below. First, the data concerning the perception of the general incremental decision rules will be presented. This is followed by an examination of the findings related to the roles of various actors.

Incremental decision rules. Data concerning the presence of the genral incremental decision rules discussed in the previous section was obtained through six agree-disagree statements, each of which were focused upon one particular such rule. Again, these rules were the "safe base," "increase focus," "fair share," "maintenance," and "marginal growth" rules.

Every city official interviewed had these statements put to them. Possible responses included "agree," "disagree," "other (please specify)," and "don't know/no response." With the exception of one individual in City B who refused to answer one question, all interviewees replied to the statements in a fashion which could be classified as falling within the first three of these categories.

The format used here will consist of the name of the rule involved and the agree/disagree statement, followed by the percent and number of replies in each response category by city. Regardless of whether it was "agree" or "disagree," the response congruent with the incremental model is presented first in each table to simplify comparisons. Finally, the chi-square test was used to determine whether the two cities were significantly different from each other. The size of the chi-square plus whether it was significant at the .05 level is noted at the bottom of each table. The abbreviation "sig." indicates a significant difference, while "n.s." indicates non-significance. As necessary, the "other" and "D.K./N.R." responses were added to the "anti-incremental" responses in calculating the chi-squares.

In addition to the data presented in the tables, additional chi-square statistics were calculated to determine whether the response patterns of each city were significantly different from that which might be obtained in an "ideal" incremental process. This "ideal" process was arbitrarily defined as one in which responses concurring with the presence of an incremental decision rule occurred at a level of 90 percent of the number of cases in each city. "Other" responses were omitted from these calculations. Theoretically, this may be justified because such cases were generally ambiguous in nature, indicating both partial acceptance and partial rejection of the rule (the most typical type of "other" response was some variation of "it depends"). Consequently, the "other" responses tended to neither confirm nor negate the presence of any given decision rule.

At a more practical methodological level, the "other" responses were omitted because their inclusion always resulted in a six-cell distribution table for which less than 80 percent of the cells contained expected frequencies of at least five. According to G. David Garson, this type of frequency distribution invalidates the reliability of the chi-square statistic.[50] Thus, on both theoretical and methodological grounds, the "other" responses were omitted from the calculations, and the "ninty-percent" rule was applied to the actual number of cases found in the agree-disagree categories. Fortunately, no more

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[50]G. David Garson, Handbook of Political Science Methods (Boston: Holbrook Press, Inc., 1971), p. 134.

(and generally less) than 25 percent of the total number of cases per city had to be omitted.

In any event, whether either city was significantly different from this arbitrarily defined model was calculated for each item using the chi-square statistic and employing a significance level of .05. The results of these tests are reported in the text accompanying and explaining each item. In light of the need to omit the "other" responses, these "tests" possess no more than a usefully suggestive quality. They cannot per se be interpreted as statistically valid.

If the reader is interested, the data presented below is broken down into the sub-categories of "overview officials" (i.e., the chief executive, the budget director, and the council president), "agency heads," "public works program heads," and "general government program heads" in Appendix E. The tiny N's in most of these sub-categories make useful and reliable statistical analysis unlikely. However, noteworthy variations between these sub-categories will be discussed as appropriate.

Solid majorities in both cities endorse the "safe base" rule. Unsurprisingly, support for the concept is slightly weaker in City B where the city council reportedly had been manifesting a "cutting" bias during the past two years (FY1976 and FY1977).

Speaking generally, the four "other" respondents argued that the safety of the budget base varied depending upon the times, economic conditions, and/or federal/state intervention (in the form of aid).

TABLE 11

THE SAFE BASE RULE

Statement: "In most cases, a department or program head can assume that their current year's funding level will be continued with little question or challenge from one year to the next."

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	15	75%	15	65.2%	30	69.8%
Disagree	3	15%	6	26.1%	9	20.9%
Other	2	10%	2	8.7%	4	9.3%
D.K./N.R.	0	0%	0	0.0%	0	0.0%
	20	100%	23	100.0%	43	100.0%

$X^2 = 0.1324$ (n.s.)

Based on revised N's of eighteen and twenty-one, respectively, neither City A nor City B differed significantly from the 90 percent acceptance level of the "ideal" incremental response pattern.

TABLE 12

THE INCREASE FOCUS ROLE

Statement: "In the budgetary review process, more time is spent justifying and questioning a department's entire request than is spent on its requests for increases only" (emphasis added verbally).

	City A		City B		Totals	
	#	%	#	%	#	%
Disagree	13	65%	12	52.2%	25	58.1%
Agree	5	25%	6	26.1%	11	25.6%
Other	2	10%	4	17.4%	6	14.0%
D.K./N.R.	0	0%	1	4.3%	1	2.3%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 0.14037$ (n.s.)

A solid majority of respondents in City A accepted the "increase focus" rule. However, only a slight majority did so in City B. This difference in support appears to be linked not to stronger support for a "total focus" norm in City B (City B: 26.1 percent vs. City A: 25 percent), but rather to a higher number of "other" and "no response" replies. The reasons for this difference are unclear. Part of the explanation might be related to the greater sense of uncertainty found in City B due to its council's alleged "cutting" bias. On the other hand, a partial answer might also be linked to the impression of less education and professionalism among the City B's public works program heads, who accounted for two of its four "other" respondents. If this impression is correct, it might suggest that these two respondents were less informed about decision rules because they are less involved with or committed to their budgetary roles. Conversely, it may simply be that budgetary decision making is less predictable or certain in City B.

At any rate, the "other" respondents in both cities largely took the position that the application of an "increase focus" or "total focus" rule depended upon such contingencies as the mood of the reviewers, the nature of the times, and so forth. Hence the application of one rule or the other was seen as varying from year to year. In other words, the "increase focus" rule was not rejected, but its use was seen as dependent upon the intervention of random circumstances.[51]

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[51]The single "no response" came from the city clerk of City B, who laughed and suggested I ask the chief executive.

Finally, based on revised N's of eighteen for both communities, the response patterns of neither City A nor City B were significantly different from the 90 percent acceptance level of the "ideal" response pattern.

TABLE 13

THE FAIR SHARE RULE

Statement: "The budgets of most departments (or programs) grow or decline by roughly the same percent that city revenues grow or decline."

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	3	15%	10	43.5%	13	30.2%
Disagree	12	60%	11	47.8%	23	53.5%
Other	5	25%	2	8.7%	7	16.3%
D.K./N.R.	0	0%	0	0.0%	0	0.0%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 1.8198$ (n.s.)

On the surface, these response patterns plainly negate the idea that the "fair share" rule is of importance. However, as Appendix E shows, it is here that we find one of the most interesting splits between the sub-categories of officials. Whereas both cities' agency and program heads tend to reject the "fair share" rule, overview officials (i.e., chief executives, budget directors, and council presidents) tend to accept it. All three of these individuals in City B accepted the statement, while both the budget director and council president of City A did likewise. City A's chief executive

responded by stating that "this is probably true in many cases, but there are always a lot of important exceptions." This somewhat ambiguous though supportive remark resulted in an "Other" classification for him.

There are a number of interpretations of this split between the overview and manager categories. For instance, the overview officials could be wrong and the "fair share" rule irrelevant.

However, it seems more likely that from their "macro-level perches" these officials are not in error, but rather are in a better position to perceive general patterns than are the line officials. The latter individuals conversely are like the trees forming the forest and from their vantage point fail to see the forest for the other trees. In non-metaphorical terms, this means that the line managers may be more aware of and more sensitive to their peers who get the exceptional boost (while they go relatively lacking), than aware of the relative equality with which the bulk of agencies and programs are treated.

Some tangential though inconclusive support for this scenario was uncovered. In the course of the interviews, a number of officials in both cities expressed frustration or active resentment toward other departments which were perceived as forging ahead in funding at the expense of all other departments and/or of their own department. In City A, the departments of education and of parks and recreation were most frequently the target of such observations. In City B, the "villains" most often cited were the education department, those

departments (unspecified) which can generate outside aid (this, of course, includes the school system), and those departments (again unspecified) which are involved in service delivery rather than overhead functions.

Further support of the fair share rule can also be found in the preceding chapter and among the annual R_S's presented in Appendix A (depicted graphically in Appendix B). These show a general pattern of adjusted R_S's clustering closely around the "ideal" mean of 0.00. This suggests that the agencies and programs in both cities are in fact being treated in a roughly even-handed manner when it comes to annual budget increases. At the least, it indicates that City A's chief executive is correct when he suggests that many programs are receiving a "fair share" even though there are "a lot of exceptions."

Obviously, this is a rather tangential re-interpretation of the interview data. However, the point being made is that, given the overview/managerial split, and given the clustering of R_S scores, it is not possible at this time to simply conclude that the "fair share" rule is not being used in both cities.

Before proceeding, it should be noted that there was an obvious and significant difference between the response patterns for each city and the 90 percent level of acceptance for the rule.

TABLE 14

THE MAINTENANCE RULE (A)

Statement: "The city government is just as concerned with determining the need for and establishing new services as it is with maintaining existing services at acceptable levels."

	City A		City B		Totals	
	#	%	#	%	#	%
Disagree	11	55%	10	43.5%	21	48.8%
Agree	7	35%	8	34.8%	15	34.9%
Other	2	10%	5	21.7%	7	16.3%
D.K./N.R.	0	0%	0	0.0%	0	0.0%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 1.2012$ (n.s.)

The results of the interviews are rather mixed here. A slight majority in City A concurs with the "maintenance" rule, while an even smaller plurality agree in City B. At least a partial explanation for these findings is available through comments volunteered by the participants.

In regards to those who agreed that establishing new services was of equal importance to maintaining existing services, none indicated that the latter was of any less importance. Of the fifteen respondents who fell into this category, eight pointed to programs or services which had been established within roughly the previous five years (e.g., in City A, the civic center, the community development department, the human services division were noted by different respondents; in City B, the planning department and the human rights

commission were cited); three noted recent changes within their own areas designed to improve internal efficiency (e.g., both cities' treasurers noted reducing bill mailings from four to two times per year, while City A's traffic engineering department pointed to the use of apparently expensive, but low-maintenance thermal plastic traffic signs, etc.); two others discussed growth in their staffs due to an increased demand for their services (e.g., City A's data processing department and City B's law department); and the remaining two volunteered no support for their viewpoint.

Among the seven interviewees in the "other" category, three indicated that the emphasis on new services varied depending upon financial conditions or opportunities. The balance were simply uncertain as to whether the "innovation" norm was of equal importance with the "maintenance" rule.

In sum, the "dissident" responses to the statement reveal a rather wide range of interpretations regarding what constitutes "new services." For some, a relatively few instances of new programs or departments established in recent times "proves" that the "innovation" rule is of equal concern. For others, it is demonstrated by "internal efficiency" changes or by the growth of their own area's staff. Altogether, it can be suggested that these respondents' notion of "proof" depends a bit too heavily upon the occasional innovation or upon limited and relatively minor internal changes. In short, (returning to our earlier metaphor) it appears that the random new or

improved tree leads many respondents to lose sight, once again, of the larger forest.

There are, of course, other possible explanations of the findings. First, the respondents in the "agree" and "other" rows might have been giving socially acceptable responses. Logically, many public officials may be unwilling to admit to an outsider that "determining the need for and establishing new services" is a lesser priority. Secondly, it might also be that the statement is poorly or inappropriately worded. Although an effort was made to frame the question as unemotionally and as plainly as possible, the topic may be one which has unavoidable emotional significance to many of the respondents. And finally, the possibility must be raised that the "innovation" rule is, in fact, of equal importance with the "maintenance rule," at least to many public officials. It cannot be ruled out that their rather limited examples of innovation were simply limited examples, and that many other uncited examples might be uncovered upon further investigation.

In any event, it must be remembered that the response pattern in this table provides weak to moderate support for the "maintenance" rule. After all, a majority in one city and a plurality in another disagreed with the statement. Moreover, based only upon the "agree" and "disagree" responses (i.e., excluding the ambiguous "other" replies), neither city was significantly different from the "ideal" incremental response pattern of 90 percent support for the rule.

Thus, the importance of the rule, and the incremental nature of the two cities cannot be ruled out on the basis of Table 14.

TABLE 15

THE MAINTENANCE RULE (B)

Statement: "In the budgetary process, there is a major emphasis upon maintaining the services of existing departments and programs at existing levels."

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	20	100%	20	87.0%	40	93.0%
Disagree	0	0%	1	4.3%	1	2.3%
Other	0	0%	2	8.7%	2	4.7%
D.K./N.R.	0	0%	0	0.0%	0	0.0%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = .14396$ (n.s.)

Unlike the previous statement, this one does not pose the issue in terms of a choice between the "maintenance" rule and an "innovation" rule. Instead, it is phrased in a deliberately unambiguous fashion in order to re-check the support levels for the "maintenance" rule. This re-checking was viewed as necessary in order to control for the possibility that interviewees would support the "innovation" rule out of a sense of social correctness.

The responses to this statement reveal extremely high support for the "maintenance" rule, when posed unambiguously and in terms of a "strong emphasis."

Taken together, the support for the "maintenance" rule found here and in the preceding statement strongly indicates that the rule is in operation in both cities. Yet more support for the rule will be presented later when we turn our attention to the goals and roles employed by the service area heads and the chief executives. As we shall see, the impact of the revenue constraint upon decision making tends to reinforce a maintenance goal among both of these categories of actors. As summarized by the Budget Director of City A, we shall see that ". . . municipal revenues are mostly used to maintain our services. The tax rate is the bottom line."

As simply "eyeballing" the data suggests, there was no significant difference between either city's response pattern to this statement and the "ideal" incremental response pattern.

TABLE 16

THE MARGINAL GROWTH RULE

Statement: "In general, departments and programs can expect a limited amount of additional funds for a coming fiscal year over what they received during a current fiscal year."

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	18	90%	18	78.3%	36	83.7%
Disagree	2	10%	4	17.4%	6	14.0%
Other	0	0%	1	4.3%	1	2.3%
D.K./N.R.	0	0%	0	0.0%	0	0.0%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = .39180$ (n.s.)

Strong to very strong support for this decision rules is found in both cities. Like most of the other rules, support is slightly weaker in City B than in City A. As in the case of the "safe base" rule, a plausible explanation for this particular deviation is the reported "cutting bias" which City B's council has developed in recent years. Logically, such a cutting bias might mean either no increase however small or even a reduction in one's base funds. Those fearing or experiencing such eventualities would obviously doubt the validity of any "marginal growth" decision rule.

On the other hand, it must be noted that there is no statistically significant difference between the response patterns of the two cities. Thus, in a formal sense, the slight difference found here is of minor concern. Of greater importance is the strength of support for the rule in both communities.

This common support has interesting implications concerning the alleged "cutting bias" of City B's council. In combination with the City B support for the "safe base" rule (65.2 percent of respondents), it suggests that this "bias" is apparently limited to requests for increases in funds, and that, even there, the cuts are having a limited impact. Further ramifications which the acceptance of these rules have regarding the role of City B's council will be elaborated later.

For now, it will suffice to note that the "marginal growth" rule is widely perceived in both cities. Based upon revised N's of twenty for City A and of twenty-two for City B, neither city possesses a response pattern that significantly differs from the 90 percent acceptance level specified for an "ideal" incremental pattern. Indeed, the tabulated chi-squares are so small (City A: 0.0000; City B: .19298) as to suggest perfect or near perfect fits with the model

Decision rules: a summary. The results of this analysis of the perception of incremental decision rules clearly indicate that such rules are being utilized in both cities. The strongest support was found for the "safe base" rule, the "marginal growth" rule, and for the unambiguously stated "maintenance" rule. Weaker, but majority support was found for the "increase focus" rule in both cities, and for the more ambiguous statement of the "maintenance" rule in City A. While a plurality in City B supported the "maintenance" rule in this more ambiguous statement, there was also more uncertainty or contingent acceptance of the rule expressed there. On the other hand, the support for the equal importance of an "innovation" rule (accepted by

roughly 35 percent of all respondents) in both cities appears to hinge upon a rather unscientific definition of proof or upon a rather limited notion of what constitutes "new services."

The only rule rejected as valid in both cities was the "fair share" rule. Two interpretations of this finding are possible. First, the rule is in fact irrelevant. Or secondly, given the managerial/overview official split, the rule is being employed, but is not widely perceived by the agency and program heads. In light of the general tendency for annual change rates to cluster around an adjusted R_S value of 0.00 (noted in the previous chapter), this latter interpretation seems more likely.

Having more or less established the perception of general incremental decision rules in both cities, it is now necessary to proceed to an examination of whether or not incremental roles are also in evidence. This is the subject of the next section of this chapter.

The role systems. As stipulated in the discussion of the municipal incremental budgeting model, incremental systems involve not only the use of incremental decision rules, but also the presence of incremental role behavior. Incremental roles may be viewed as a sub-form of organizational roles, which may be defined as a set of attitudes and behaviors that an individual in a given type of organizational position adopts because of the nature of the interpersonal and other environmental forces which impact upon him/her as a result of occupying that position.

The key elements of this definition are "attitudes" and "behavior." As applied to incremental roles, attitudes may be translated into goals, while behavior may be defined as predictable behavior. For the various categories of officials involved in municipal budgeting the appropriate labels, goals, and predictable behaviors are summarized in Figure 14.

Position	Label	Goals	Behaviors
1. Chief Executive	Revenue/ Service balancer	"Hold the line on taxes" and "maintain services"	Engages in marginal cuts of requests for funding increases
2. City Council	Rubber stamp	Any number of things: variable	Approves executive budget with little or no revisions
3. Agency/ Program Heads	Advocate	Maintain and/ or improve (or expand) services	Will tend to pad budget requests

Figure 14. The Budgetary Roles of Municipal Officials

Every respondent was provided (a) open-ended questions on the budgetary goals of the different categories of officials and (b) agree/disagree statements regarding the relevant behaviors of each. As before, possible responses to the agree/disagree statements included "agree," "disagree," "other (please specify)," and "no response/don't know."

The format for presenting the data will include a brief discussion of the expected goals and behaviors of each category of official,

followed by tables showing the response patterns of both cities to the items. The chi-square test was again employed to determine if there were any statistically significant differences between City A and City B. The size of these chi-squares and an indication of whether they are significant (sig.) or insignificant (n.s.) at the .05 level of confidence is included at the bottom of each table.

In addition, in the discussion accompanying each table, there will be an indication of whether or not each city is significantly different from an ideal response pattern of 90 percent support for the predicted "incremental" reply. For the agree/disagree statements, these particular chi-squares were calculated in the same fashion used on the earlier agree/disagree statements. For the data obtained from the open-ended questions, slightly varying procedures were used for the calculations. These varying procedures are briefly explained in the discussions that follow the tables. Due to the need to manipulate the data by either omitting cases or by collapsing categories, these chi-square "tests" are viewed as largely suggestive, not definitive.

Finally, before turning to the findings, it should be noted that classifying the open-ended responses generally posed no methodological problems because most officials used fairly simple and largely compatible terminology in answering the "goal" questions. For example, whereas one subject might remark that official X's goal was "minimizing tax increases," another respondent would claim X's goal was "holding the line on taxes." It required no great effort at semantic interpretation to conclude that both respondents saw officials X's

goals as one and the same. In those few cases where uncertainty about classification arose, the responses were usually placed in an "other" category, unless later comments clarified the respondent's earlier remarks.

The first category of official we shall look at is the chief executive. As suggested by our incremental model and as summarized in Figure 14, these officials are viewed as revenue/service balancers whose goals should be "holding the line on taxes" and "maintaining services," and whose relevant behavior should be to cut agency requests (which are presumedly padded).

In response to the open-ended question, "What would you say are his (i.e., the chief executive's) basic goals which guide his handling and evaluation of the (budget) requests?", the following response patterns were found.

TABLE 17

THE BUDGETARY GOALS OF CHIEF EXECUTIVES

Goals	City A		City B		Totals	
	#	%	#	%	#	%
a. Hold the line on taxes and maintain services	8	40%	11	47.8%	19	44.2%
b. Hold the line on taxes (only)	8	40%	6	26.1%	14	32.6%
c. Maintain and improve services	1	5%	0	0.0%	1	2.3%
d. Other	0	0%	1	4.3%	1	2.3%
e. Not sure	2	10%	4	17.4%	6	14.0%
f. No response	1	5%	1	4.3%	2	4.7%
Totals	20	100%	23	99.9%	43	100.1%

$X^2 = .9760$ (n.s.)

(Note: the chi-square statistic was calculated using a six cell table obtained by collapsing categories c, d, e, and f into an "other" classification.)

As can be seen, 40 percent of City A's subjects and nearly 48 percent of City B's voluntarily cited both of the budgetary goals which the model predicts as characteristic of chief executives. No other goal category in either city accounted for larger proportions of the respondents, although an equal percentage of City A's saw the chief executive's goals in terms of tax restraint only.

Since the respondents were given no specific verbal or written suggestions as to what the proper responses might be, these proportions provide good support for the notion that the chief executives possess the predicted "incremental" budgetary goals. Indeed, if we combine these responses with those which stress only one of the two goals predicted (i.e., goal category b in the table), we find full or partial support for this conclusion among 80 percent of City A's respondents and among nearly 74 percent in City B.

Further support that the chief executives pursue "incremental" goals was found by comparing each city's responses to an "ideal" of 90 percent support for such goals (i.e., eighteen of City A's twenty officials and twenty-one of City B's twenty-three should give answers of a pro-incremental nature). To obtain the necessary number of cells, goal responses a and b were collapsed into a pro-incremental category while categories c, d, e, and f were collapsed into an "other" category. The resulting chi-square for City A was only 0.1961 and for City B 1.3618, neither of which are significantly different from the "ideal" response pattern.

Before proceeding, it must be acknowledged that the combination of goal categories a and b, employed above, suggests a possible modification of the model of municipal incrementalism developed here. The linchpin between these two categories of responses is that both emphasize that the chief executive pursues a goal of tax restraint, while only one of the categories suggest this goal is balanced by a desire to maintain services. Accordingly, it is possible to argue that the

goal of tax restraint is more widely perceived than the service maintenance goal. Therefore, it can be maintained that the tax restraint goal may take precedence (or priority) over the maintenance goal. This rather conjectural line of reasoning suggests that Anton's and Wildavsky's role label of "budget balancer" for chief executives is perhaps more accurate than the "revenue/service balancer" label used here.[52]

Conversely, given the notion that more respondents might have supported the dual goal category if they had reflected longer or if they had been given more specific instructions, such a modification might not be warranted. In either event, both goal category a and category b are compatible with a model of incremental behavior, although perhaps not the model developed here.

The second dimension of the chief executive's role is his actual treatment of budget requests. As indicated, in an incremental model, this actor is expected to be a consistent trimmer or cutter of such requests. To determine if this is so, an agree/disagree statement was made to the respondents with the following results.

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[52]Wildavsky, Budgeting, p. 118; Anton, "Roles," p. 34.

TABLE 18

CHIEF EXECUTIVES AS BUDGET REQUEST CUTTERS

Statement: "Program and department heads tend to expect their budget requests to be cut by the Chief Executive."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Agree	19	95%	19	82.6%	38	88.4%
b. Disagree	1	5%	2	8.7%	3	7.0%
c. Other	0	0%	1	4.3%	1	2.3%
d. No opinion/	0	0%	1	4.3%	1	2.3%
e. No response	—	—	—	—	—	—
Totals	20	100%	23	99.9%	43	100.0%

$X^2 = .6200$ (n.s.)

(Note: The chi-square statistic was calculated using a four cell table obtained by collapsing categories b, c, and d into a "disagree/other" category.)

An overwhelming majority of interviewees in both cities support the notion that their chief executives possess a cutting bias. This includes both cities' chief executives and budget directors. In addition, neither city was significantly different from the "ideal" pro-incremental response pattern of 90 percent. The chi-square of each city against this standard were 0.0000 for City A and 0.1917 for City B. These findings combined with findings on the goals of both chief executives firmly support the contention that <u>in general</u> these executives behave in a fashion which is compatible with an incremental budgeting system.

Similar conclusions can be reached concerning the program and agency heads of both cities. As will be recalled, our model predicted that these individuals are "advocates" who pursue the goals of maintaining services and/or improving (or upgrading or expanding) services. To uncover perceptions on the actual goals of this category of official, the following open-ended question was asked: "What would you say are the general goals which guide you (or program and agency heads) in the preparation and formulation of the budget requests for your (or their) areas?" Table 19 presents the findings.

TABLE 19

THE BUDGETARY GOALS OF AGENCY AND PROGRAM HEADS

	City A		City B		Totals	
	#	%	#	%	#	%
a. Maintain services	10	50%	9	39.1%	19	44.2%
b. Upgrade services	1	5%	2	8.7%	3	7.0%
c. Maintain and upgrade services	5	25%	7	30.4%	12	27.9%
d. Other	3	15%	4	17.4%	7	16.3%
e. Not sure	1	5%	1	4.3%	2	4.6%
Totals	20	100%	23	99.9%	43	100.0%

$X^2 = .0557$ (n.s.)

(Note: The chi-square statistic was calculated using a four cell table obtained by collapsing categories a, b, and c into a pro-incremental category and categories d and e into an "other" category.)

Assuming some variation in goals for the advocate's role, we find three types of responses in both cities compatible with that role. These are goal categories a, b, and c. Together, these account for 80 percent of the respondents in City A and slightly over 78 percent in City B. Comparing these three categories, totalled for each city, against the 90 percent pro-incremental standard yields no significant difference. The chi-square for City A is only 0.1961, while City B's is 0.6740. Clearly, advocate-oriented goals are the rule, not the exception in both cities.

Among the 15 percent of each city's respondents who fell into the "other" category, no identifiable alternative goal emerges. According to City A's director of highways and streets and City B's administrative director of public works, their budgetary goals are set by their most bothersome problem. City B's planning director insisted his was simply to assist the chief executive in making his budget choices. And City A's council president stated that the real goal of department heads was to get more money, period. As for the two "not sure" respondents, they were City A's budget director and City B's chief executive, both of whom indicate something to the effect that an administrator's goals presumedly varied with the administrator.

Aside from possessing appropriate goals, "advocates" are further expected to engage in appropriate behavior, the most noted of which is to pad their budget requests. To determine whether this occurred (or was thought to occur), the respondents were confronted with a rather blunt agree/disagree statement, the responses to which follow.

TABLE 20

PROGRAM AND AGENCY HEADS AS BUDGET PADDERS

Statement: "Department and program managers generally ask for more funds than they expect to receive."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Agree	17	85%	18	78.3%	35	81.4%
b. Disagree	3	15%	4	17.4%	7	16.3%
c. Other	0	0%	0	0.0%	0	0.0%
d. Don't know/ no response	0	0%	1	4.3%	1	2.3%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 0.0301$ (n.s.)

(Note: The chi-square statistic was calculated using a four cell table obtained by collapsing categories b, c, and d into a non-incremental category.)

As can be seen, strong majorities in both cities recognize the use of padding tactics by agency and program heads. Only seven of the forty-three disavowed that they engaged in such behavior, with five of these seven found among offices within the general government category (City A's city clerk and human services director; City B's tax title custodian, human services director, and human right's director). Most of these programs were relatively small and either performed rather routine tasks or constituted relatively new and less established programs. Neither city significantly differed from the 90 percent pro-incremental ideal. The chi-square for City A was 0.0000 and for City B 0.6740.

Together with the findings on the goals of program and agency heads, this set of data confirms the expectation that these individuals fulfill the role of advocate. Accordingly, in combination with the findings related to the chief executives, we have thus far developed a strong case that City A and City B possess incremental budgeting systems which are fairly close to the model presented earlier.

The data on the goals and behavior of the city councils similarly support an incremental budgeting scenario in both cities, but one in City B markedly varied from our model. As stated earlier, city councils are expected to be rubber stamps for the executive's budget and thus to possess highly variable budgetary goals, if any.

Accordingly, respondents in both cities were asked "What would you say are the general goals which guide their (i.e., the council's) handling of the (chief executive's) budget recommendations?" Table 21 presents the findings.

TABLE 21

THE BUDGETARY GOALS OF THE CITY COUNCILS

Goals	City A		City B		Totals	
	#	%	#	%	#	%
a. Hold the line on taxes and maintain services	2	10%	4	17.4%	6	14.0%
b. Hold the line on taxes	3	15%	14	60.9%	17	39.5%
c. Other	11	55%	1	4.3%	12	27.9%
d. No response	3	15%	4	17.4%	7	16.3%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 17.9590$ (sig.)

(Note: The chi-square statistic was calculated using a four cell table obtained by collapsing categories a and b, and categories c and d.)

Here we find an obvious and statistically significant disagreement between the two cities. On one hand, City A appears to conform to the expectation of a varied, rather muddled pattern of responses. Over one-half of the respondents fall into the "other" category (eleven of twenty). Of this group, seven argued that the budgetary goals of councillors consisted of a concern for specific agencies or programs. Several described this orientation in terms of the councillors having "pet" projects which they sought to protect or to cut. Two of the "others" argued the council's goal was to serve as an overseer or reviewer of the budget process. The balance of these respondents had views not shared by anyone else. The overall impression arising from

the response pattern in City A is that the council's goals are rather vague and/or limited, suggesting that the council is not strongly involved with making budgetary choices.

Such is not the case in City B. Here a solid majority of 61 percent report that the council's goal is "holding the line on taxes," and a not insubstantial 17 percent concur, but balance this goal with a service maintenance goal. In short, nearly 80 percent of City B interviewees clearly see their council as concerned with tax restraint.

The differences between the two cities are fairly easy to account for. At the time of the interviews, City B was in the throes of a court-ordered reassessment of property values, reportedly brought about by the city's failure to increase property valuations throughout the city in a timely, systematic, and comprehensive fashion. As a result, substantial tax hikes are expected for many sections of the city.

The council's reaction to this "crisis" was to engage in a presumedly determined (and apparently vocal) campaign to cut department budgets. Logically, reduced expenditures in the face of increased revenues could mean substantial tax relief for the citizens, especially those just hit by the higher tax rates. This alleged cutting bias had begun during the budget preparations for FY1976 and had continued during the FY1977 process, during and just after which the interviews were conducted. With the interviews falling in the middle of this "reassessment crisis," it seems rather obvious why City B's

respondents believed that the "tax line" was of concern to their council.

Further evidence that City B's council pursues a role deviating from the expected is found in the responses to the agree/disagree item on their behavior. The response patterns for both cities are reported in Table 22.

TABLE 22

CITY COUNCILS AS RUBBER STAMPS

Statement: "The city council tends to accept the executive budget in tact with few or no revisions."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Agree	19	95%	11	47.8%	30	69.8%
b. Disagree	1	5%	10	43.5%	11	25.6%
c. Other	0	0%	2	8.7%	2	4.6%
d. Don't know/ no response	0	0%	0	0.0%	0	0.0%
Totals	20	100%	23	100.0%	43	100.0%

$X^2 = 9.1609$ (sig.)

(Note: The chi-square statistic was calculated using a four cell table obtained by collapsing categories b, c, and d into a non-incremental/other category.)

Once again we find that City A's council appears to behave in accordance with the model. Indeed, its response pattern does not significantly differ from the 90 percent ideal (City A's chi-square equalled 0.0000). On the other hand, the response pattern in City B is split almost evenly between those who perceive the council

rubber-stamping the executive budget and those who see it cutting those recommendations (all of the respondents in the "disagree" category indicated that the council's behavior was now geared toward reducing the requests). The two "other" respondents indicated that the council varied in employing rubber stamp versus cutting behavior. As would be expected, the response pattern in City B was significantly different from the ideal pattern of 90 percent acceptance of predicted behavior.

Clearly, the role being pursued by the council of City B appears to be both substantively and statistically distinct from the rubber stamp role predicted. On one hand, it is widely perceived as pursuing the specific goal of holding the tax line. On the other hand, over half of the respondents believe that it is not consistently behaving like a rubber stamp.

Two questions arise. First, why is City B's council deviating from the model? And second, is its role (as yet undefined) incompatible with the notion that City B's budgetary system is incremental in nature?

In regards to the first question, the reasons for the council's cutting bias clearly appear to be linked to the "reassessment crisis." Although most interviewees responded to questions about the council in highly general terms, support for this linkage can be found in the comments of at least ten of the twenty-three respondents. With references to the "reevaluation problem," the "current economic problem," and the "fear of the higher taxes," these individuals, including the

chief executive, the head of the council, the planning director, and the treasurer all discussed the council's cutting bias within the context of the current pressures on the city. Moreover, five of this group indicated that the council's cutting behavior had come about only within the last couple of years. The overall impression that emerges is of a council which has shifted from a rubber stamp to a cutting behavior pattern as a result of a combination of political and economic fears arising from a court-ordered reassessment of property tax rates.

Whether or not the cutting bias of the council constitutes a non-incremental role is a more intriguing and important question. Logically, in order to do so, the cuts exacted by the council should (a) threaten the base funds of municipal departments (and thereby constitute a violation of the "safe base" decision rule) and/or (b) result in no growth, even for inflation, in the departmental budgets (and thereby constitute a violation of the "marginal growth" decision rule). Neither of these conditions appear to hold true. As noted earlier, roughly two-thirds of City B's respondents affirmed the "safe base" rule, while nearly 80 percent supported the "marginal growth" rule. Thus, the much feared cutting bias of City B's council appears to be limited to only a limited portion of the requests for increases over the funding base. In other words, as City B's fire chief stated, "the (chief executive) cuts our budget back to size, and the council nickels and dimes us to death."

Thus, while City B's council is not conforming to the "rubber stamp" role, its goals and behavior suggest that it is fulfilling a role similar to the "guardian of the public purse" role described by Wildavsky.[53] This means, in turn, that its "deviant" role is nonetheless compatible with an incremental budgetary system. Indeed, since many municipalities are presumedly faced by worsening fiscal conditions, it may well be that this "deviant" role is not so deviant, but is becoming a major alternative (or replacement) for the rubber stamp role.

The role system: a summary. Taking all of the data into consideration, it appears that the budgetary systems of both City A and B operate within a general incremental framework. Their chief executives are either revenue/service balancers or budget balancers who pursue the goals of service maintenance and/or tax restraint, and who tend to cut departmental budget requests. Departmental managers are budgetary advocates for their departments who seek to maintain and/or improve services and who tend to pad their funding requests. Finally, the city councils are either rubber stamps of the chief executive's budget recommendations who lack clearly identifiable goals, or "guardians of the public purse" whose goal is to hold the line on taxes and who tend to make cuts in agency requests beyond those made by the chief executives.

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[53] Wildavsky, Politics, p. 47.

How do these findings stack up with the expectations projected by the model of municipal incrementalism set forth earlier? Basically, the model is sound, although some modifications should be considered. Figure 15 presents the model's original expectations concerning budgetary goals and behaviors and compares them to the modifications suggested by data.

As the figure demonstrates, the actual role system found in both cities closely approximate the system expected by the model. In combination with the findings on the incremental decision rules presented earlier, these findings give us very strong evidence that budgetary actors in both cities perceive their decisional processes in incremental terms.

Position	Expected Role	Modified Roles	Expected Goals
1. Chief Executive	Revenue/service balancer	Revenue/service balancer or budget balancer	Hold the line on taxes and maintain services
2. Agency/ Program Heads	Advocate	Advocate	Maintain and/or improve services
3. City Councils	Rubber stamp	Rubber stamp or guardian of the public purse	Any number of things: variable

Modified Goals	Expected Behavior	Modified Behavior
Hold the line on taxes and maintain services or hold the line on taxes	Marginal cuts of requests for increases	Marginal cuts of requests for increases
Maintain and/or improve services	Pads budget requests	Pads budget requests
Any number of things: variable or hold the line on taxes	Approves executive budget with little or no revisions	Approves executive budget with little or no revisions or marginal cuts of requests for increases

Figure 15. Models of Municipal Incremental Role Systems: Original Expectations vs. Suggested Modifications

Some Conclusions and Final Observations

The unavoidable question which arises at this point in our analysis is "so what?" In other words, what difference does it make if budgetary actors perceive that their budget systems generally

follow incremental decision rules, pursue incremental goals, engage in incremental behavior, and manifest an incremental role system?

Regardless of whether he presumes a phenomenological linkage between attitudes/values and behavior, or whether he assumes that actual behavior shapes attitudes,[54] a proponent of incremental systems could logically conclude that these budgetary systems are (a) incremental systems that (b) produce incremental choices. Accordingly, the analysis developed here could be viewed as significant because it serves to further the acceptance of both incremental theory and the notion that public budgeting is operationally incremental.

Unfortunately, such conclusions are only partially valid. Clearly, the data presented thus far does tend to confirm that the goals, behaviors, and roles predicted by incremental theory do exist (or more precisely, are perceived as existing by participants). However, at this point, we have no scientifically acceptable, empirical evidence that the outputs of this presumed incremental system are themselves incremental in nature. Therefore, we lack the most important ingredient needed to conclude with finality that these budgetary systems are in fact incremental budgeting systems.

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[54]Even though a more in-depth investigation might make it possible to develop a data base which could be used to determine the level of association between attitudes/values and behavior, it would be impossible to determine which is cause, which is effect. An example of social theorists who emphasize the procedure of attitudes/values is Peter L. Berger and Thomas Luckmann, The Social Construction of Reality: A Treatise in the Sociology of Knowledge (Garden City, New York: Doubleday and Co., Inc., 1967), Chapter 2 passim. An opposing line of argument is presented in B. F. Skinner, Beyond Freedom and Dignity (New York: Alfred A. Knopf, Inc., 1971), Chapter 1 passim.

As discussed at length in Chapter I, the failure to provide this final, necessary piece of the puzzle may be linked to the failure to define incremental choice in adequately operationalized terms. Such a definition is essential to the task and its lack has led to the development of the ratio of shares indicator.

Accordingly, it is necessary to return to an examination of the R_S indicator. At this point it appears that we are dealing with fairly predictable incremental systems. In the next chapter, we will employ the R_S indicator as a tool for defining incremental vs. non-incremental budget choices. Employing this tool, related hypotheses, and interview data, we will attempt to ascertain <u>empirically</u>
(a) whether the two cities engage in incremental decision making and
(b) the conditions which result in decisions not predicted by the incrementalists, i.e., which result in non-incremental decisions.

CHAPTER IV

AN APPROACH TO DEFINING INCREMENTAL AND NON-INCREMENTAL BUDGETARY CHOICES

Introduction

The evidence presented in the two previous chapters supports a general conclusion that budgeting in City A and City B is incremental in nature. In Chapter II, a mathematical model of an ideal incremental system was applied to both cities with the finding that they appear to conform generally to this model. In Chapter III, a behavioral model was presented and the cities approximated that model as well.

However, such findings are rather general and non-specific. Like the regression models of Wildavsky et al.,[1] they suggest that the appropriations systems being studied belong under the rubric of "incremental" systems. But the relative incidence of incremental and non-incremental decisions remained unestablished; the reasons for non-incremental choices, if any, are left unexplored, and our ability to identify variants of incremental budgeting systems, a distinction requiring far more specific knowledge than presented thus far, is virtually non-existent. The situation is not unlike that of a naive economist who readily concludes that both the United States and the Federal Republic of Germany have, generally speaking, "mixed"

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[1] Davis, Dempster, and Wildavsky, "A Theory of the Budgetary Process"; their "On the Process of Budgeting II"; and their "Toward a Predictive Theory."

capitalist economies. While such an assertion is true, it fails to provide a sufficiently informed grasp of the substantial variations which exist between these two systems. The obvious point is that a single, general classification may possibly mask as much information as it reveals.

Those of us concerned with the study of budgetary decision making should expect and demand more complete information, information which takes us beyond the realm of general conclusions and into the realm of a more detailed and comprehensive grasp of our topic. In particular, we need more specific information about how to distinguish between incremental decisions and non-incremental decisions; about the incidence of each type of choice within any given budgetary system; and about the causes of deviant (i.e., non-incremental) choices. Only then will we be able to conclude that there are or are not significant sub-types of incremental systems; only then will we be able to uncover the existence of non-incremental systems; only then will we be able to develop an understanding of the interaction between the forces promoting incremental choice and the forces promoting non-incremental choice.

To this researcher, the sine qua non of attaining this more comprehensive grasp of budgetary choice is the development of a methodology that enables us to distinguish non-incremental from incremental decisions. The achievement of this classification in an empirically sound fashion would open a metaphorical door in the incremental wall and permit us to move beyond its overly general facade.

It is the primary objective of this chapter to describe and test one particular approach to this end. In the sections that follow, relevant hypotheses will be presented and the methodology to test them will be discussed; the results of these tests will be noted and some conclusions based on them will be offered and examined; and finally the perceived causes of unambiguously defined non-incremental decisions will be presented and the significance of these factors for otherwise incremental systems will be explored.

Before proceeding further, it is important to re-stress that this chapter is largely exploratory in nature. As noted in Chapter I, little empirically sound work has been done in this area, and those classification schemes that have been offered are notably simplistic and unconvincing.[2] In light of this paucity of previous sound research, the attempt here to uncover a firm empirical distinction between incremental and non-incremental choices may be likened to the efforts of early explorers to find the source of the Nile: no definitive "map" (or final truths) should be expected; the best which can be hoped for is an improved grasp of the directions which future researchers should pursue.

Methodological Matters: The Hypotheses

In Chapter I, three hypotheses were offered by which to operationalize the definitions of incremental and non-incremental choices.

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[2]See above in Chapter I of this study, pp. 9-10.

As rephrased in light of Chapter II, these are as follows:

Hypothesis 1: Adjusted ratios of shares which fall within plus or minus one standard deviation unit of the ideal (or expected) mean of 0.00 (i.e., the E[adj. $\bar{R}_S$] = 0.00) will indicate probable incremental decisions.

Hypothesis 2: Adj. R_S's which fall beyond plus or minus one standard deviation unit, but which do not exceed plus or minus two standard deviation units around the E(adj. $\bar{R}_S$) of 0.00 will indicate possible non-incremental decisions.

Hypothesis 3: Adj. R_S's which fall beyond plus or minus two standard deviation units around the E(adj. $\bar{R}_S$) of 0.00 will indicate probable non-incremental decisions.

Reflected in these hypotheses are a number of methodological assumptions which need to be discussed. First, the rationale for using variation from the E(adj. $\bar{R}_S$) of 0.00 versus variation from an obtained mean is that this research is concerned with deviation from the incremental model. As may be recalled from Chapter II, an obtained mean itself may indicate the presence of wide-spread non-incremental decision making. Accordingly, standard deviations around such a mean can hardly serve as a standard or criterion by which to define non-incremental or incremental decisions.

Conversely, the deviation of adj. R_S values from the ideal incremental mean seems more likely to yield information appropriate to the task. After all, it is the variation of decisions from the

incremental ideal which (presumedly) permits us to say that one decision is more incremental than another. Thus, since an adj. $\bar{R}_S$ of 0.00 would occur if all decisions were equally and ideally incremental in nature (i.e., if all adj. R_S's were themselves 0.00), then, accordingly, it is variation from this ideal mean which should indicate that one set of decisions is relatively incremental whereas another set of decisions (further from the ideal mean) is relatively less incremental.

The above explains why the E(adj. $\bar{R}_S$) of 0.00 is employed to calculate the standard deviation units, but it does not explain why such units per se are used to categorize decisions as opposed to some other scheme of classification. There are two reasons for pinning the hypotheses upon these units. First, while the R_S statistic clearly suggests a mean value indicative of an ideal incremental system, it offers no useful guidance as to what range of variation should typically occur around the mean.[3]

All we know at present, as was noted in Chapter II, is that the bulk of decisions made within an incremental system should be roughly clustered around this mean, while non-incremental decisions should be fewer in number and at considerable variance from the ideal. In short, the distribution of budget decisions, while not normally distributed, should form a fairly smooth, unimodal curve. Given such a distribution, given that incremental choices should be clustered around the mean, given that non-incremental choices should be in the

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[3]Ideally, the standard deviation around the E(adj. $\bar{R}_S$) should also be 0.00, since all cases would have values of 0.00.

tails of the curve, it is logical to assume that standard deviation units might be an appropriate tool for separating incremental from non-incremental decisions.[4] Accordingly, for the purposes of initial exploration, it was decided to use this measure of variation as a device for classifying the data.

The second reason for framing the hypothesis around standard deviation units is simply that the demands of a coherent research design required some sort of plausible device to serve as an organizing principle. Standard deviation units constitute a starting place for classifying decisions which is as good as any other, and probably better than many. No presumption is being made here that such units are or will prove to be the best way to classify decisions. As will be seen, their utility as classifiers are double-checked against five other approaches in the next chapter.

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[4]It should be noted that no assumption is being made here that the standard deviation units are defining a fairly exact percent of the cases as incremental or non-incremental. The distribution shown in Chapter II and Appendix B are, for the most part, ". . . smooth, unimodal, and (with a) mode . . . (falling) within one standard deviation of the mean . . . ." In such distributions, ± one s unit around the mean will include at least 56 percent of the cases versus 68.26 percent on a normal curve; ± two s units will include at least 89 percent of the cases versus 95.54 percent; and beyond ± two s units, roughly 11 percent or less of the cases will fall versus 4.46 percent on the normal curve. The key words here are "at least" and "roughly." They signify that the application of standard deviation units to such nonnormal distributions gives us, at most, a rough division of cases, a division separating those which are centrally clustered from those which are further and further out in the tails of the curves. However, this ability is all that is necessary for the purposes of this research. The quote and the percentages cited in this note are from Freeman, Elementary Applied Statistics, p. 62.

Standard deviation units were calculated for each organizational category of the data by year, i.e., separate units were calculated for agency-level data, for public works program data, and for the general government program data for each year studied. This was done because it seemed plausible that incremental and non-incremental decisions within each of these organizational categories might involve different sized R_S's within any given year. For example, since agencies generally involve much more funds than programs do, it might be that smaller annual funding changes (and hence smaller R_S's) would be viewed as non-incremental shifts at the agency level than is the case at the program level. Similarly, given the stop-and-go nature of many public works programs (e.g., sewer construction, highway construction, and others), participants in that category might also have somewhat different perceptions of incremental versus non-incremental decisions than exist within the more stable general government area.[5]

Thus, given differences in size, the nature of the enterprise, and tradition, it was thought that different levels of variation might characterize the different organizational categories, with the result that participants in those categories would have slightly different conceptions of the types of budget choices being made. In other words there is a possibility that each of these organizational categories

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[5]This breakdown of the data into different organizational categories reflects in part arguments raised by Natchez and Bupp that non-incremental choice will be more common at the program level than at the agency level. See Natchez and Bupp, "Policy Priority," 951-963.

might constitute a sub-type of an incremental system within an overall municipal incremental system. Accordingly, standard deviation units for each of these categories were tabulated and applied to the data.[6]

A Test for the Hypotheses

In considering ways to check the validity of the hypotheses, one basic notion was used to provide guidance. This was that the over-riding and essential concern of this paper is with how decisions are made. This single point has a number of implications for constructing a test.

First, budget data by themselves cannot confirm or deny how they came about. Only the people involved in making the decisions can do that. Accordingly, it was evident that a test of the hypotheses would have to employ interview data as a basis for confirming or denying the validity of these classifications.

Moreover, those interviewed would have to be individuals involved in the making of specific decisions. Since the terms incremental and non-incremental have no meaning for such officials, a logical alternative for formulating the "verifying" question was needed. Accordingly, they were asked whether or not a particular decision was made in a typical or an atypical fashion, with the definition of typical decision making defined previously in the interview through a series of open-ended and agree/disagree statements. (This

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[6]The breakdown of the R_S data from both cities into PbI, PsNI, and PbNI categories is presented in Appendix A.

latter type of information was reported in Chapter III, where we saw that "typical" decisions were largely defined by respondents in "incremental" terms.)

A major problem of interview-based research is, of course, the constraint of memory, a factor compounded in organizational research by the additional problem of employee turn-over. To reduce the effects of such difficulties, the particular decisions about which individual officials were asked were drawn from the last two funding change periods (i.e., from data for FY1975 and FY1976). Thus, in summary, a specific official was confronted about a particular decision made during (at that time) the last two years and was asked the following question:

> Would you describe this decision as typical of the decisions normally made during the budgetary process? If yes, why? If no, why not?

This question (and others) were posed to selected program and agency heads in both cities. The individuals interviewed were chosen indirectly as a result of drawing a decision on their program as part of a random sample of decisions.

The pool of decisions from which the sample was drawn was comprised of budget data from each city's general government area, public works area, and agency-level data for FY1975 and FY1976.[7] The overall

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[7]As stated in Chapter I, the reasons for drawing the data from these organizational categories was due to the ready availability and longitudinal comparability of budget data on the program and agency elements of these categories. The composition of these categories is presented in Appendix A.

sample of decisions was actually composed of six samples, one each drawn from the three organizational categories in both cities for the two-year period. Each of these samples were stratified to yield a proportion of PbI, PsNI, and PbNI choices corresponding as closely as possible to the proportion of such choices found in each category during the two-year period. The reason for drawing six separate samples as opposed to only two, one each for each city, was that the six sample approach yielded a far larger number of cases.[8]

Altogether, questions were asked about forty-one (of ninety-seven) decisions in City A and about fifty (of ninety-seven) decisions in City B. Five stratified random samples from each organizational category were drawn. To obtain a maximum of consistency in perception, the one random sample which provided the greatest number of duplicate programs or agencies per category was used to determine which officials to interview.

Reflecting this duplication of programs and agencies, and the overlapping responsibilities of some of these officials (e.g., the chief executive of City B was interviewed about the budget for his own office and about the budget for the general government "agency"), the resulting breakdown of total decisions, non-duplicated organizational units, and number of officials interviewed is presented in Table 23.

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[8]In City A, the multiple sample approach required the investigation of forty-one decisions versus only fifteen decisions required by the single sample technique. In City B, the multiple and single sample approaches specified forty-one versus forty-one decisions for study, respectively.

Again, it should be kept in mind that the number of officials interviewed in both cities is a non-duplicated, mutually exclusive count. Using the same example given above, City B's chief executive is counted only once in the table (in the general government program row) although he was queried not only about his own program (i.e., his office budget) but also about the agency-level category of "general government." Similarly, the director of City B's Public Works Department (counted in the agency-level row) was questioned not only about his agency, but also about the "administration" program category, about the "street lighting" program account (which is centrally controlled in his office), and about the "water" program unit (also centrally administered). Thus, this one interview accounted for four of the twenty-nine non-duplicated organizational units about which information was sought in City B. Hence, the number of officials actually interviewed is smaller than both the number of decisions comprising the samples, and the number of non-duplicated organizational units represented by those decisions.

After interviewing these forty-two officials, their responses of "typical" or "atypical" were compared to the PbI, PsNI, and PbNI classifications. Agreements and disagreements between the perceptions and the classifications were then tabulated.

Once the number of agreements and disagreements were tabulated, chi-square tests were used to determine whether any significant differences occurred between: (a) the number of "s unit" versus "agreed-upon" incremental and non-incremental decisions; and (b) the number of

TABLE 23

THE DISTRIBUTION OF TOTAL DECISIONS, NONDUPLICATED ORGANIZATIONAL UNITS, AND NUMBER OF INTERVIEWED OFFICIALS BY ORGANIZATIONAL CATEGORY BY CITY

Organizational Category	Total Decisions in Sample	Non-duplicated Orgn. Units	# of Interviewed Officials
	City A		
a. Gen'l Gov't Programs	22	14	12
b. Public Works Programs	12	6	4
c. Agency-Level Data	7	5	4
TOTAL	41	25	20
	City B		
a. Gen'l Gov't Programs	20	13	12
b. Public Works Programs	14	7	4
c. Agency-Level Data	17	9	6
TOTAL	51	29	22

"agreed-upon" incremental versus non-incremental decisions found in each city and in their corresponding organizational categories. This first set of tests was used to confirm an obvious statistical similarity between the s unit classifications and the "agreement" classifications. The second set of chi-squares was used to determine whether either city, or their organizational categories, was

significantly more incremental (or more non-incremental) than their counterpart.

Most importantly, the chi-square test was also employed to determine whether the three classes of indicators (i.e., PbI, PsNI, and PbNI) produced distributions of agreements and disagreements which were significantly different from a hypothetically random distribution. Assuming conditions in which the classifications possessed no validity, this hypothetically random distribution was defined as a set of interview responses resulting in an even split between agreements and disagreements. This procedure was used to determine whether the number of "agreed-upon" predictions generated by each hypothesis was significantly different from the number which would occur solely by chance. As such, this set of chi-squares constitutes a formal test of the hypotheses' usefulness as classifiers of choice types. This procedure is discussed in greater detail in the next section of this chapter.

To summarize the methodology employed here, the following research design was followed:

1. Each city's budget data for FY1975 and FY1976 was broken down into PbI, PsNI, and PbNI categories in accordance with the three hypotheses stated earlier.

2. A stratified random sample of decisions was drawn from each of the organizational categories in both cities.

3. From this sample, a list of officials to be interviewed was determined. These officials were interviewed about budgetary decision

making as typically practiced and about whether specific choices with which they were involved constituted typical or atypical decisions.

4. By comparing classifications of types of decisions with perceptions of their typicality and atypicality, the number of decisions on which agreement and disagreement occurred was calculated.

5. The chi-square test of significance was applied to the data as organized in a number of ways just enumerated. Most importantly, the number of agreements and disagreements generated by each set of classifications was compared to a hypothetically random distribution to determine which hypotheses produced or demonstrated a significant degree of usefulness as identifiers of incremental and non-incremental budget choices.

Findings on the Validity of the Hypotheses

In this section, the findings derived from the procedures described above are presented. As a first step in examining the utility of the hypotheses, Table 24 was developed. This compares the number of incremental and non-incremental classifications generated by the s-unit technique to the number of incremental and non-incremental agreements found when the s-unit classifications are compared to the interview-based classifications. The data is broken down into organizational categories by city.

The purpose of these comparisons is to determine whether the "agreement" data is significantly different from the raw s-unit classifications. Chi-square tests confirm that not only are there no

TABLE 24

THE NUMBER AND PERCENT OF S UNIT-BASED INCREMENTAL AND NON-INCREMENTAL CLASSIFICATIONS COMPARED TO THE NUMBER AND PERCENT OF AGREED-UPON INCREMENTAL AND NON-INCREMENTAL DECISIONS: BY ORGANIZATIONAL CATEGORY, AND BY CITY

Org. Category	S-unit Classifications	Agreement Data
	City A	
1. DPW Prgs.		
a. Inc.	6(50%)	6(55%)
b. N.I.	6(50%)	5(45%)
2. Gen'l Gov't Prgs.		
a. Inc.	15(68%)	15(71%)
b. N.I.	7(32%)	6(29%)
3. Agency Level		
a. Inc.	4(57%)	4(57%)
b. N.I.	3(43%)	3(43%)
4. Totals		
a. Inc.	25(61%)	25(64%)
b. N.I.	16(39%)	14(36%)
	City B	
1. DPW		
a. Inc.	9(64%)	9(64%)
b. N.I.	5(36%)	5(36%)
2. Gen'l Gov't		
a. Inc.	11(58%)	11(65%)
b. N.I.	8(42%)	6(35%)
3. Agency Level		
a. Inc.	10(59%)	9(60%)
b. N.I.	7(41%)	6(40%)
4. Totals		
a. Inc.	30(60%)	29(63%)
b. N.I.	20(40%)	17(37%)

statistically significant differences between the two, but that such differences as do exist are highly negligible, the largest X^2 obtained being 0.1741.

Having established an overall congruence between the s-unit classifications and the "agreement" data, the next question is to what extent do each of the three s-unit classifications generate agreements versus disagreements? Table 25 presents this information organized by type of s-unit classification by city.

As this table shows, all of the disagreements which occur in categorizing non-incremental choices occur in the PsNI classification, and over eighty percent of all disagreements fall in this classification. Conversely, over 95 percent agreement is found in the PbI category in both cities, a finding which suggests that this s-unit classification has considerable, but not absolute strength in identifying choice types. And finally, the PbNI category is clearly the most reliable in pinpointing a type of choice. The complete lack of "errors" in this classification strongly supports the notion that R_S's which fall beyond two s-units are non-incremental decisions.[9]

In short, the table shows that the classifying powers of both the PbI and PbNI classifications are substantial. The weak link is PsNI category. However, even though this classification is the

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[9]Technically, one error did occur. What appeared to be a PbNI choice for City B's Human Service Department was actually the result of a change in accounting procedures. Given the peculiar nature of this "error," it was decided that it should be netted out of the data. Accordingly, it does not appear in any of the tables in this chapter, with the exception of Table 23.

TABLE 25

THE NUMBER AND PERCENTAGE OF AGREEMENTS WITHIN EACH S-UNIT CATEGORY FOR EACH CITY AND FOR BOTH CITIES COMBINED

	# of Agreements	S unit Classifications	% of Agreements
		City A	
1. PbI Category	25	25	100
2. PsNI Category	4	6	67
3. PbNI Category	10	10	100
4. Totals	39	4	95
		City B	
1. PbI Category	29	30	97
2. PsNI Category	4	7	57
3. PbNI Category	13	13	100
4. Totals	46	50	92
		Both Cities	
Combined Totals	85	91	93

primary source of disagreements, it is important to bear in mind that it is an accurate identifier in a majority of cases in both cities. Consequently, purely on the basis of this raw data, it appears intuitively reasonable to accept the first and third hypothesis, and possibly even the second hypothesis.

Further evidence is, of course, necessary in order to accept or reject any of the hypotheses on statistical grounds. As stated earlier, a test was devised to determine whether any of the hypotheses constitute statistically significant successful identifiers of incremental and non-incremental choice.

Since decisions within any of the classifications may be perceived either as typical or atypical by respondents, it follows that the distribution of agreed-upon decisions would be roughly equal to the number of disagreements, if there were no statistical validity in the classifications. In other words, if the responses of "typical" or "atypical" were caused by random factors, it follows that there should be a roughly "fifty-fifty" split among these responses within each of the s-unit classifications.

Accordingly, using either a chi-square test or the Fisher exact test, it is possible to determine whether the number of successful predictions (i.e., agreements) is significantly different from that which would occur randomly. Thus, one of these two significance tests was applied to the sets of data. Table 26 shows which of the sets of classifications was significantly different from the hypothetical random distribution at the .05 and .01 levels of significance.

The table demonstrates that the level of agreements generated by the PbI and PbNI classifications are significantly different from the random distribution. Therefore, on the basis of these tests, we may accept the following two hypotheses:

Hypothesis 1: Adjusted ratios of shares (i.e., adj. R_S's) which fall within plus or minus one standard deviation unit of the ideal (or expected) mean of 0.00 (i.e., E[adj. $\bar{R}_S$] = 0.00) indicate probable incremental decisions (i.e., PbI decisions).

TABLE 26

IS THE NUMBER OF AGREEMENTS AND DISAGREEMENTS GENERATED FROM THE PbI, PsNI, AND PbNI CLASSIFICATIONS SIGNIFICANTLY DIFFERENT FROM A SPECIFIED RANDOM DISTRIBUTION WHEREIN THE NUMBER OF AGREEMENTS IS EQUAL TO THE NUMBER OF DISAGREEMENTS?

	1. PbI	2. PsNI	3. PbNI
City A			
1. α = .05	Yes*	No***	Yes***
2. α = .01	Yes**	No***	Yes***
City B			
1. α = .05	Yes*	No***	Yes***
2. α = .01	Yes**	No***	Yes***

* The chi-square value must be greater than 3.84, when df = 1.
** The chi-square value must be greater than 6.64, when df = 1.
***The Fisher Exact Test of Significance was employed.

Hypothesis 3: Adj. R_S's which fall beyond plus or minus two standard deviation units around the E(adj. $\bar{R}_S$) of 0.00 indicate probable non-incremental decisions (i.e., PbNI decisions).

However, we cannot accept the second hypothesis. Thus, our conclusion is as follows: Adjusted R_S's which fall beyond plus or minus one standard deviation unit, but which do not exceed plus or minus two standard deviation units around the E(adj. $\bar{R}_S$) of 0.00 do not indicate possible non-incremental decisions to a statistically significant degree.

Although we cannot accept this hypothesis, it should be kept in mind that in both cities the PsNI hypothesis was a successful identifier of choice types in a majority of cases. Therefore, it is possible to argue that this classification might have a limited degree of

value. However, before accepting such a conclusion, it would be necessary to do additional research applying it in a larger number of cities. If it did prove to be a stable, though statistically non-significant classifier in a majority of cases, its continued use as an indicator could be justified only in combination with a strong measure of caution.[10]

Beyond Testing the Hypotheses

As indicated in the second section of this chapter, chi-square tests were applied to the data as organized in ways other than for testing the hypotheses. In sum, the focus of these tests is whether

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[10] An alternative idea is that the demarcation line between incremental and non-incremental decisions may fall within ± one and ± two s units. For example, incremental decisions might fall below ±1.3 s units while non-incremental decisions might fall above ±1.3 s units. If this were the case, the PsNI category would be discarded. Unfortunately, with only six PsNI cases in the City A sample and seven in City B's, there is not a sufficient number of cases to generate a clear pattern. Thus, for example, the PsNI "errors" in City A have z scores of -1.07 and -1.26, while the "validated" choices have scores of 1.06, 1.14, 1.34, and 1.46. In City B the PsNI "errors" have z values of 1.08, 1.12, and 1.26, while the "validated" decisions have scores equal to 1.23, -1.60, -1.73, and -1.76. These values indicate that PsNI "errors" tend to fall toward the low end of the range of PsNI values. However, a number of the "validated" PsNI choices do likewise. Thus, it might be accurate that decisions falling toward the low end of the PsNI range tend to be incremental decisions, while those falling in the middle and toward the high end of the range are non-incremental. A dividing line of ±1.3 s units would indeed reduce the number of errors from five to three (i.e., from two in City A to two; from three in City B to one). However, with such a small number of PsNI cases in each city's sample, it would be impossible to prove whether this is a significant improvement or an improvement due to random factors. Obviously, the basic idea is worthy of further research. However, its validity cannot be proven or disproven here.

any of the sets of budget data are significantly more or less incremental than any other.

Specifically stated, the objective of these tests is to determine whether the number of "agreed-upon" incremental and non-incremental decisions within the "public works" program, "general government" program, and "agency-level" categories of one city are significantly different from the number of such decisions in the same organizational categories of the other city. Table 27 compares the resulting distribution tables and cites the resulting chi-square values.

The findings reported in Table 27 confirm that none of either city's organizational categories nor either city was significantly more or less incremental during the FY1975 and FY1976 funding periods.[11] Overall, given the general preponderance of incremental choices in both cities, we may generally conclude that incremental decision making dominated the budgetary processes of both cities during the time period under review.

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[11]It should be noted that the distributions of incremental and non-incremental decisions within each organizational category were also compared to the distributions in all other categories. For example, not only were City A's public works programs compared to City B's, but they were also compared to City A's general government programs and agencies and to City B's general government programs and agencies. None of these additional comparisons yielded chi-squares which were significant at the .05 level. Furthermore, a comparison of the distribution of incremental and non-incremental decisions within each city's combined program-level data versus its agency-level data produced no significant differences. Hence, no evidence was found supportive of Natchez and Bupp's "policy entrepreneur" theory, which predicts more non-incremental choice at the program level than at the agency level.

On the other hand, as this table illustrates and as Table 24 confirms, non-incremental decision making in both cities appears to be a fairly common phenomena. Indeed, referring again to Table 24, non-incremental decisions comprise roughly 36 percent of agreed-upon decisions in both cities. In other words, for these two cities during this two-year period, better than one in three decisions were non-incremental in character. Accordingly, while incremental decision making is the dominant mode of choice in City A and City B, non-incremental decision making is a fairly common and apparently integral part of these erstwhile incremental budgeting systems.

The implications of this finding depend, of course, on the reasons why non-incremental decisions occur. To obtain some information on this topic, the officials interviewed were, as may be recalled, asked to cite reasons as to why "their" particular funding decisions were typical or atypical. Focusing upon only the "agreed upon" incremental decisions, nearly all of the respondents cited such factors as inflation and/or salary increases as the reasons for the typical, "marginal" increases they received.

On the other hand, recipients of "agreed upon" non-incremental boosts or cuts cited a wide variety of factors which they viewed as "causing" such decisions. These factors were combined into mutually exclusive categories and the results are presented in Table 28.[12]

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[12]In a few instances, respondents attributed a non-incremental decision to more than one factor. When this occurred, each of the factors cited were counted separately and placed into different cells of the table. For this reason, the number of factors cited slightly exceeds the number of "agreed-upon" non-incremental decisions.

TABLE 27

A COMPARISON OF AGREED-UPON INCREMENTAL AND NON-INCREMENTAL DECISIONS BY ORGANIZATIONAL CATEGORY AND BY CITY, TO INCLUDE THE CHI-SQUARE STATISTIC

	City A	City B
1. DPW		
a. Inc. Decs.	6	9
b. N.I. Decs.	5	5
c. X^2 =	.0457*	
2. Gen'l Gov't.		
a. Inc. Decs.	15	11
b. N.I. Decs.	6	6
c. X^2 =	.0485*	
3. Agency-Level		
a. Inc. Decs.	4	9
b. N.I. Decs.	3	6
c. X^2 =	.0049*	
4. Totals		
a. Inc. Decs.	25	29
b. N.I. Decs.	14	17
C. X^2 =	.0003*	

*Indicates that the chi-square statistic is not statistically significant at the .05 level of significance.

This type of fairly detailed breakdown yields limited information on which to base any sort of general conclusions as to why non-incremental decisions occur. Clearly in over half of the cited reasons (nineteen of thirty-three, or 57 percent), the moving force was the federal or state government. However, the balance of the

TABLE 28

RESPONDENTS' PERCEPTIONS OF FACTORS RESULTING IN AGREED-UPON NON-INCREMENTAL DECISIONS

Perceived Causes	City A	City B	Total
1. Federal Mandates or Grants	7(44%)	9(53%)	16(48%)
2. State Mandates or Grants	3(19%)	N.A.	3(9%)
3. Govt. Reorganization of Services	2(12%)	4(23%)	6(18%)
4. Atypically Large Collective Bargaining Settlements	1(6%)	1(6%)	2(6%)
5. Racial Tensions	1(6%)	1(6%)	2(6%)
6. The "Budget Crunch"	N.A.	1(6%)	1(3%)
7. Implementation of New Service Facility	N.A.	1(6%)	1(3%)
8. Weather Conditions	1(6%)	N.A.	1(3%)
9. Decision to Join St. League of Cities & Towns	1(6%)	N.A.	1(3%)
10. TOTALS	N=16(99%)	N=17(100%)	N=33(99%)

"perceived causes" constitute a hodgepodge lacking any sort of obvious continuity.

Accordingly, it becomes necessary to look for "not-so-obvious" linkages between the categories. In reviewing the literature, it was noted that a number of authors have suggested that incremental choice is made within the context of a routinized incremental role system largely insulated from external environmental factors.[13] Moreover, in

[13]See e.g., Jackson, "Budgetary Process," pp. 42-43; Sharkansky, Spending in the States, pp. 145-151; and

works such as Jackson's, much energy has been spent attempting to establish a role for "external" forces within these otherwise insulated, bureaucratic processes.[14]

Following this line of argument, the "perceived causes" were broken down into "external" and "internal" categories. Defining "external" factors to mean factors over which the bureaucratic hierarchy has limited to no control (therefore including collective bargaining contracts as well as federal mandates and grants), rows 1, 2, 4, 5, and 8 in Table 28 were grouped together. Defining "internal" factors to mean decisional considerations apparently under the full control of the hierarchy (such as the reorganization of services) or as any type of other factor which is ambiguous (such as the "budget crunch"), rows 3, 6, 7, and 9 from Table 28 were placed in the "internal" factor category. Table 29 shows the results.

TABLE 29

RESPONDENTS' PERCEPTIONS OF FACTORS RESULTING IN AGREED-UPON NON-INCREMENTAL DECISIONS, AS REORGANIZED INTO "INTERNAL" AND "EXTERNAL" FACTOR CATEGORIES

Source of Factor	City A	City B	Total
1. Internal	3(19%)	6(35%)	9(27%)
2. External	13(81%)	11(65%)	24(73%)
3. TOTALS	16(100%)	17(100%)	31(100%)

X^2 between City A and City B = 0.45623

NOTE: The above value of the X^2 statistic is statistically insignificant at the .1 level of significance.

Crecine, Governmental Problem-Solving, pp. 12-19.

[14]Jackson, "Budgetary Process," pp. 48-58.

The picture which emerges of both cities from this table is one suggesting that the dominant cause of non-incremental decisions tends to derive from forces external to the control of the decision making hierarchy. However, internal forces do appear to be responsible for a considerable number of such types of decisions (roughly one in four, overall). Still, if the making of non-incremental decisions were totally dependent upon the "insulated," "routinized," "bureaucratic" hierarchy, such types of decisions would indeed be as rare as they are often thought to be.

In contradistinction, the budgetary processes of City A and City B appear to be quite porous (or poorly "insulated") and thus fairly frequently impacted upon by external influences. This suggests that the debate between incremental and systems theorists appears to be considerably overstated. This matter will be discussed at greater length in the final chapter.

Summary

In this chapter, a methodological approach was developed to test the utility of operationalized definitions for incremental and non-incremental budget decisions. This approach focused primarily upon the "R_S/s unit" technique, the utility of which was compared to an interview-based device for classifying decisions, the "typical choice" approach. The procedure of comparing the extent to which these two techniques agreed with one another was, not surprisingly, referred to as the "agreement approach."

When the data was organized by organizational category and by city, no significant difference was found in the classification yielded through the "R_S/s unit" and agreement techniques. Likewise, high levels of congruence were found between these approaches when the data was organized by the s unit-derived categories of PbI, PsNI, and PbNI. Overall, the s-unit device appeared to classify accurately ninety-three percent of the cases in the sample.

However, the apparent success of the s-unit approach rests primarily upon the PbI and PbNI categories. While tests indicate that the data within these two categories are significantly different from a hypothetical random distribution, such was not the case for the PsNI classification. Accordingly, only two of the three major hypotheses of this chapter were accepted.

Having been somewhat successful in classifying non-incremental decisions, an analysis was next undertaken of their incidence and causes. In both cities, it was found that this type of choice occurred in slightly over one in three cases, a finding which suggests that non-incremental decisions are a surprisingly common feature within erstwhile incremental budgeting systems.

As for their causes, over half were due to responses made by the two cities to federal and/or state actions. Indeed, nearly three of four non-incremental choices could be ascribed to factors external to the control of the municipal decision making hierarchy. In short, it appears that incremental budgetary processes are not as well insulated from their environments as is sometimes suggested.

In sum, this chapter produced three findings of considerable importance. First, the attempt to operationalize incremental and non-incremental decisions through the "R_S/s unit" approach was largely successful. More research is needed, but, at the least, the technique appears to be promising. Secondly, a somewhat unexpected finding was that non-incremental decision making seems a rather common feature within the incremental budgeting systems of the two municipalities. And finally, while the dominance of incremental choice appears to support the importance of bureaucratic routines and incremental role systems within municipal budgeting, the nature of non-incremental decisions indicates the importance of factors external to the formal hierarchy as causal agents of budgetary choice.

CHAPTER V

A COMPARISON OF SYSTEMS TO CLASSIFY INCREMENTAL AND NON-INCREMENTAL DECISIONS

In the previous chapter, our focus was testing only one method for identifying incremental and non-incremental decisions. While the results have been fairly impressive, the question remains as to whether the s unit device is as good or better than other possible identifying mechanisms.

Accordingly, five other ways were developed by which to divide the data into choice categories, three based on approaches used in the literature, and two suggested during consultations with Dr. Craig L. Moore of the University of Massachusetts. These five alternative approaches are described and explained below:

1. The Wildavsky Alternative: In The Politics of the Budgetary Process, Wildavsky argues that an afc of ±30 percent constitutes a rough dividing line between incremental and non-incremental decisions.[1] Decisions involving annual funding changes (afc's) of less than ±30 percent presumably represent incremental decisions, while those greater than this level are non-incremental ones. In accordance with this approach, the sample of data employed earlier in this chapter was broken down into I and NI classifications based upon whether the afc's involved were greater or less than the 30 percent level.

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[1] Wildavsky, Politics, p. 14.

2. The Fenno Alternative: In The Power of the Purse, Richard Fenno suggested that an afc of ±20 percent can be used to divide incremental from non-incremental decisions. Decisions below this level could be viewed as incremental choices, while those above are non-incremental ones.[2] Following this model, the sample of budget data was yet again divided into corresponding incremental and non-incremental categories.

3. The Modified Bailey and O'Connor Alternative: In its pure form, the Bailey and O'Connor model for identifying types of choice involves dividing decisions into three classifications: the incremental, in which decisions with afc's ranging from 0 percent to ±10 percent are placed; the intermediate, wherein decisions with afc's of ±11 percent to ±30 percent are lumped; and the non-incremental in which is placed all decisions with afc's of greater than ±30 percent.[3]

Two problems exist with this model. First, their "intermediate" category serves to confuse efforts to identify incremental and non-incremental decisions. Containing between roughly one-fourth to one-half of the arrays of budget data examined,[4] this classification consigns a large number of decisions to a conceptual "limbo," caught between the "heaven" of incrementalism and the "hell" of non-incrementalism. The second problem with their classification is simply that if we were to apply their definition of non-incremental

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[2]Fenno, Purse, p. 352.

[3]Bailey and O'Connor, "Measuring the Muddles," pp. 64-65.

[4]Ibid., p. 65.

choice as it stands (i.e., such decisions are those with afc's of greater than ±30 percent), we would simply be repeating the Wildavsky procedure.

Therefore, it was decided to drastically alter their approach in order to develop a third possible alternative. In reviewing a more detailed breakdown of their data,[5] it was noted that, for their American data (i.e., their budget data from non-foreign sources), there is a remarkably consistent division occurring at the afc level of ±20 percent. At this point, we find that roughly three-quarters of their data falls below the 20 percent level, while one-quarter falls above. Therefore, rather than simply duplicate the Fenno alternative, a third was developed wherein the sample of data used here was rank ordered by value of afc,[6] and the "highest" 12.5 percent of the positive afc's were defined as non-incremental along with the "lowest" 12.5 percent of the negative afc's. The balance of the afc's (i.e., those falling between these "high" and "low" poles) were classified as incremental decisions.

This procedure is admittedly arbitrary, but unfortunately, Bailey and O'Connor neglect to inform us of the incidence of negative to positive afc's within their distribution. Accordingly, since the

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[5] Ibid., p. 64.

[6] This rank-ordering was accomplished by placing the largest positive afc at the top and ranking each positive afc in descending order down to the point where negative afc's began. At this point, the absolute afc values began to increase so that the largest negative afc was at the bottom of the rank ordering. In essence, the ordinal scale thus created ranked each case along a positive-negative continuum.

budget data (in R_S form) from City A and City B was more-or-less normally distributed, this type of breakdown seemed as logical as any other.

4. The Decile Alternative: In a manner quite similar to the modified Bailey and O'Connor alternative, the same rank ordering of the sample was employed to calculate positive and negative deciles. Decisions falling within the d_1 (negative) and d_9 (positive) ranges were labelled as non-incremental. Decisions between these two ranges were classified as incremental. Not surprisingly, given the sample size, this procedure yielded a distribution identical to the Bailey and O'Connor distribution. Consequently, it is included in the comparisons solely on the grounds of attempted thoroughness. In the table that follows, the two alternatives are in the same column.

5. The Quartile Alternative: A further suggestion was to use quartile ranges as a means of classification. Accordingly, Q_1 (negative) and Q_4 (positive) ranges were derived from the rank ordered sample and decisions falling above these ranges were classified as non-incremental decisions, while decisions between Q_1 and Q_4 were labelled incremental.

The resulting five sets of classified data were then individually compared to the "typical choice" classifications, a procedure undertaken in the preceding chapter for the s-unit classifications. To repeat, if a particular choice was categorized as incremental and labelled by a respondent as "typical," then that choice was counted as a "validated" incremental decision. Similarly, if a decision was

classified a non-incremental choice and labelled "atypical," then that choice was treated as a "validated" non-incremental decision. Those choices on which disagreement occurred (i.e., "incremental-atypical," or "non-incremental-atypical") were considered unvalidated classifications.[7] The results of this procedure, to include its application to the s-unit classifications, are presented in Table 30.

TABLE 30

A COMPARISON OF THE SIX QUANTITATIVE INDICATORS: THE NUMBER AND PERCENT OF VALIDATED CHOICE TYPES (I.E., AGREEMENTS) FOR EACH INDICATOR BY CITY AND FOR BOTH CITIES COMBINED

	s unit		Wildavsky		Fenno		Bailey/O'Connor (Decile)		Quartile	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
1. City A (N=41)	39	(95.1)	36	(87.8)	38	(92.7)	37	(90.2)	33	(80.5)
2. City B (N=50)	46	(92.0)	42	(84.0)	46	(92.0)	44	(88.0)	38	(76.0)
3. Both Cities (N=91)	85	(93.4)	78	(85.7)	84	(92.3)	81	(89.0)	71	(78.0)

As Table 30 demonstrates, all of the alternative indicators generate fairly high levels of agreement with the "typical choice" classifications. Moreover, employing chi-square tests and a .05 level

[7]The term "unvalidated" is used in preference to the term "invalid" because there is no empirically based reason for assuming that the "typical choice" approach is a more accurate indicator than other approaches. Hence, while it is assumed that an agreement constitutes a validated classification, nothing can be assumed about a disagreement. Logically, one or the other of the indicators is correct but there is no way of knowing which is right, which is wrong.

of significance, none of the quantitative indicators had a significantly higher number of validated classifications than any of the others. Thus, from a purely statistical point of view, this initial comparison permits us to rule out none of these techniques as useful indicators of incremental and non-incremental decisions.

However, since an indicator's unvalidated classifications could consist of either incremental (I) or non-incremental (NI) classifications, it follows that the different indicators could have "erred" differently, one approach erring in an incremental direction, another in the non-incremental direction. If this were the case, then the apparently similar success rates of each of these indicators could be due to different strengths and weaknesses.

Comparing each technique's success in classifying first I and then NI decisions does indeed reveal some differences. Combining the data from both cities, we find, for example, that the Fenno and Wildavsky approaches made no "errors" in classifying incremental decisions, while the "decile" technique made only one such "error." Conversely, the "s-unit" approach labelled five choices as non-incremental which the "typical choice" method classified as incremental, while the "Quartile" technique made nineteen such "errors." Thus, it may be concluded that the Fenno, Wildavsky, and "decile" approaches appear to be superior to the "s-unit" and "Quartile" indicators when it comes to categorizing incremental decisions.

On the the other hand, the "s-unit" and "Quartile" mechanisms are superior to the Fenno, Wildavsky and "Decile" techniques in

successfully pinpointing non-incremental choices. Out of a total of thirty-two decisions classified as non-incremental by the "typical choice" approach, the "s-unit" and "Quartile" indicators labelled only one of these as incremental, whereas the Fenno approach made all of its seven "errors" in this manner, the "Decile" method made nine (out of ten) of its unvalidated classifications in this fashion, and the Wildavsky technique made thirteen such "errors."

Table 31 summarizes these findings. The first row in this table, labelled "typical choice," reveals the number of incremental and non-incremental classifications made by the interview-based approach. Since this approach constitutes the standard of comparison for the others, no unvalidated classifications are attributed to it. Accordingly, the numbers reported in the first two cells of this row may be considered as the "ideal" number of cases against which the numbers in the cells beneath them may be compared.

The "I error" column may be interpreted as containing those cases which the quantitative methods classified as non-incremental, but which the "typical choice" approach labelled as incremental. Similarly, the "NI error" column contains those cases which the quantitative indicators labelled incremental, but which the "typical choice" technique cateogized as non-incremental.

Using a .05 level of significance, chi-square tests were run between all six of the quantitative indicators to determine if there were any significant differences in their ability to identify, first,

TABLE 31

THE NUMBER OF AGREEMENTS AND DISAGREEMENTS BETWEEN THE "TYPICAL CHOICE" INDICATOR AND THE SIX QUANTITATIVE INDICATORS FOR BOTH CITIES COMBINED

	I Agreements	NI Agreements	I Errors	NI Errors	Totals
1. Typical Choice	59	32	N.A.	N.A.	91
2. s-unit	54	31	5	1	91
3. Wildavsky	59	19	0	13	91
4. Fenno	59	25	0	7	91
5. Bailey/ O'Connor (Decile)	58	23	1	9	91
6. Quartile	40	31	19	1	91

incremental decisions and, next, non-incremental decisions.[8] These tests revealed that the "Quartile" technique was significantly weaker in classifying incremental decisions than the "best case" indicators, the Fenno and Wildavsky approaches.[9] However, these "best case" methods were not significantly better than any of the remaining indicators in identifying incremental decisions.

On the other hand, the best indicators of non-incremental decisions, the "s-unit" and "Quartile" devices were significantly better at categorizing such decisions than were the "Decile" and Wildavsky

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[8] In order to use this statistic, the Fenno and Wildavsky approaches, "perfect" classifiers of incremental choice, were each attributed with one error.

[9] It should be noted that the "Quartile" method is also significantly weaker than the "s-unit" approach.

methods. Indeed the difference between the Fenno approach and these "best case" NI techniques came very close to being significant as well ($X^2 = 3.57143$; $p = .0555$).

These findings suggest that we can probably dismiss the "Quartile" approach for failing to indicate incremental decisions adequately; and they raise doubts about the ability of the "Decile" and Wildavsky methods as classifiers of non-incremental decisions. Accordingly, the weaknesses of these three techniques suggest that future research on choice-type indicators can perhaps disregard these three approaches.

On the other hand, future research should definitely include the "s-unit" and Fenno techniques. The former is among the "best case" classifiers of non-incremental decisions, the latter among the "best case" classifiers of incremental choice, and neither is significantly weaker than the other in classifying incremental or non-incremental decisions, respectively. In short, of the various quantitative techniques tested, these two appear to be the most promising.

Based on research done in only two cities, these conclusions are, of course, only tentative. Before anything approaching a definitive conclusion can be drawn, all of the techniques discussed here (and others yet to be developed) need to be applied in a far larger number of cities, to budgeting in different levels of government, and to budgeting as practiced under a variety of social, political, and/or economic conditions.

Some Concluding Comments

Whether one accepts the findings reported in the previous sections of this chapter or the findings of Chapter IV depends upon whether one accepts that the methodology employed is a valid construct upon which to base those conclusions. And whether one accepts the methodology's validity depends in turn upon whether one accepts some basic assumptions which have guided and shaped the construction of that methodology. Ultimately, all research, but especially that of the social sciences, builds its empirical artifice upon a bedrock of assumptions. If the validity of the assumptions is denied, the artifice crumbles, and the conclusions will be rejected.[10]

An effort has been made to stress the tentative, exploratory nature of both the research design and the conclusions presented herein. However, more should be done. The basic assumptions which have informed this study need to be summarized, to be thrown into bold relief. As a result, the reader may better judge for him or herself the validity of this study. Like virtually any other behavioral study, this work cannot make a definitive, incontrovertible statement about its subject matter. Human behavior is too rich and too complex, and our ability to conceptualize and interpret that behavior too limited for any such claim to be made.

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[10]The argument presented in this paragraph is loosely drawn from Charles Taylor, "Neutrality in Political Science," Social Structure and Political Theory, eds. William E. Connolly and Glen Gordon (Lexington, Massachusetts: D. C. Heath and Company, 1974), pp. 16-39.

For the sake of brevity, no attempt will be made to elucidate all of the possible assumptions which have been employed here (indeed, it is doubtful if the author is even aware of all of his assumptions). Accordingly, our focus will be upon a few basic assumptions which seem to go to the heart of this research project.

The first of these assumptions is that the dichotomy between incremental and non-incremental choice is an essentially valid classification scheme. Two arguments may be raised against this assumption. First, there may be a better set of classifications which are being overlooked. This may be true. However, the behavioral model of the incremental paradigm appears to hold as an explanation of much budgeting, as is confirmed by the findings and observations of Wildavsky, Fenno, Anton, Crecine, and Chapter IV of this paper. To the extent this model is valid, then the "output" categories of incremental and non-incremental choice should follow logically as the primary means of classifying the choices made within the model.

The second criticism which may be raised is that the categories are too broad, and thus lead to inadequate differentiation among types of budget choices. This also may be true. However, if we accept the general categories as valid, then what is being called for would essentially come down to sub-categories of the primary classifications. Two points may be made about creating sub-categories. First, the basis of the general categories (i.e., afc's or adj. R_S's) would

easily permit the generation of any number of sub-categories.[11] Secondly, and more importantly, the call for sub-categories is premature. That is, before one begins any effort to creat sub-categories, it is first necessary to demonstrate the utility of the primary classifications, operationalized in a sound fashion. Accordingly, this has been the overriding goal of this paper. Sub-categories are viewed as a refinement which will come later, if at all.

A second basic assumption of this research has been that the "typical choice" approach, while perhaps marred to an unspecified, but limited degree by faulty memory or mis-statement, is essentially accurate in classifying the data. On the grounds of this assumption, the use of the "typical choice" approach as a standard of comparison for the quantitative indicators has been justified. And on the grounds of this justification, the "agreement technique" has been used as the means for validating both the nature of an individual choice, and the utility of the different quantitative indicators.

This assumption about the general accuracy of the "typical choice" approach rests in turn upon three corollary assumptions.

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[11] Indeed, based upon a careful analysis of the "agreement techniques" result, it is even possible to justify a case for including a classification somewhat similar to Bailey and O'Connor's "intermediate" classification. Comparing the disagreements generated by the Fenno and "s-unit" techniques, it was found that all of their disagreements with the "typical choice" device fell within either a positive afc range of 7.3 percent to 18.2 percent, or a negative range of -2.6 percent to -16.9 percent. While a majority of decisions within these ranges were "agreed-upon" cases, the fact that the errors of the two best methods all clustered within these ranges suggest that something akin to an intermediate, conceptual "no-man's land" may exist between the clearly incremental and clearly non-incremental decisions.

First, given the structure of the interview format, the typical choice technique is firmly based upon the incremental paradigm, and, therefore, the labels of "typical" and "atypical" may be equated to the concepts of incremental and non-incremental, respectively. Secondly, because respondents may reject the incremental model during the general interview and because they may reject the notion that a particular choice is incremental, the "typical choice" approach is more capable than the quantitative techniques of confirming or denying the validity of the incremental model. This is a centrally important assumption because, given either funding constraints on budgeting or their own operating mechanics, the quantitative techniques all tend to assure that at least half or more of the decisions classified will be labelled incremental.[12] Thus, these approaches are more likely than the "typical choice" technique to be subject to the charge of "self-fulfilling prophecy."

Finally, the validity of the "typical choice" technique as a standard of comparison also rests upon the assumption that the source of its classifications, viz., relevant decision makers, is a source superior to that of the other approaches, viz., the mechanical

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[12]For example, since annual increases in the general fund accounts of both cities did not exceed either a 20 percent or a 30 percent level, it is simple mathematical logic that a majority of the decisions made in the two cities would be incremental according to the Fenno and Wildavsky approaches, respectively. Moreover, given the nature of a normal distribution, one could only expect that the "s-unit" technique would predict a majority of cases to be incremental. Likewise, the modified Bailey/O'Connor and "Decile" devices would always predict that 75 percent or 80 percent of all cases, respectively, were incremental. Even the "Quartile" approach predicts that a flat 50 percent of the cases will be incremental.

application of quantitative/statistical devices to the data. This line of reasoning is based upon the premise that relevant decision-makers possess a fuller knowledge of the making of a particular choice, a better sense of how decision making generally occurs than do the inanimate, mechanical quantitative approaches.

If the assumption is accepted that the "typical choice" technique is a valid (if imperfect) standard of comparison, then a third major assumption of the research design follows: viz., that the "agreement technique" is an acceptable approach for validating the classification of individual decisions. This is a crucial assumption because, if it is in error, then the conclusions drawn about the various quantitative devices may also be in error. Frankly, there appears to be no way to prove empirically the validity of the "agreement technique." However, there does appear to be a way by which its validity can be disproven.

The first step in constructing a "test of non-validity" is to assume that there is no reason to accept the validity of an agreement between two different indicators if the aggregate level of agreement is not significantly different from what might occur by chance. Logically, if a level of agreement is the result of chance factors, then any and all of its component agreements may be the result of a chance pairing.

The next step is to construct a possible random distribution of agreements and disagreements. Since there are only two possible outcomes (i.e., agreement or disagreement), it follows that a purely

random distribution should consist of fifty percent agreements and fifty percent disagreements.

Employing this "ideal" random distribution, it thus becomes possible to use a chi-square test (where $\alpha = .05$) to determine whether an actual distribution approximates or is significantly different from this random pattern. If the actual distribution is significantly different, then it can be argued that the level of agreement probably did not occur by chance. And therefore, it cannot be proven that the level of agreement (and the agreements which comprise that aggregate level) are invalid.

The results of these tests of significance reveal that all of the six indicators generate an overall level of agreement with the "typical choice" method which is significantly different from the hypothetical "fifty-fifty" split. However, in terms of only incremental choices, the "Quartile" technique is not significantly different from such a random distribution. And in terms of non-incremental decisions, neither the Wildavsky nor the "Decile" approaches are significantly different. Accordingly, the levels of agreement achieved by these three methods could be due to random pairings.

However, the levels of agreement generated by the "s-unit" indicators, and by the Fenno method are significantly different from the random distribution, both at an overall level (where $N = 91$), and within each category of choice (i.e., I and NI). Therefore, for these two approaches, their concurrence with the "typical choice" technique cannot be rejected as having occurred due to random factors. Clearly,

they are indicating something about the budget data. Still, we can only assume, given the logic and the focus of these devices, that it is incremental and non-incremental budget choices which are being identified.

C H A P T E R V I

SUMMARIES AND CONCLUSIONS

Introduction

This chapter has three purposes. First, it offers some final observations on the methodologies employed in the previous chapters. Next, it presents the substantive findings on municipal budgeting found in the two cities. And finally, it assesses the relationships between the incremental model and the other models of urban policy analysis.

Methodological Conclusions

This work has examined the utility of three different methodological approaches designed to determine the extent to which a municipal budgeting is incremental in nature. First, t tests of significant differences between obtained and expected means were used as an indicator of whether annual sets of budget data were incremental or non-incremental. Next, a behavioral model of municipal budgeting was developed and a sample of municipal officials were interviewed to see if their perceptions of budgeting were congruent with it. And finally, the "R_S/s unit" and "typical choice" techniques were used to classify individual decisions, and to measure the extent to which incremental vs. non-incremental choice characterized the two city governments under study.

In regards to the use of tests of significant differences between means as an indicator of incrementalism, the choice of this approach rested upon certain implications of the R_S statistic, implications suggesting that a hypothetically ideal incremental process should generate a hypothetical ideal mean wherein the adj. $\bar{R}_S = 0.00$.[1]

This ideal value was used to calculate t-scores to show whether a statistically significant difference occurred between the ideal mean and the mean obtained from a set of data. If so, it could be suggested that the budget process in question performed non-incrementally. If not, the process was presumably an incremental one.

As an indicator of incremental and non-incremental budget processes, these tests were found to be flawed. A comparison of the "non-incremental" and "incremental" processes showed that the former often had fewer (presumably) non-incremental decisions.

The weaknesses of the tests were clearly illustrated when they were paired with their corresponding data distribution graphs. Erroneous results appear to have occurred in distributions that were unimodal, but considerably to the left or right of the ideal mean, in distributions which were unimodal and centered around the ideal mean, but which possessed NI decisions clustered on the positive or negative end of the graph, and in distributions that were flat and dispersed, but evenly spread along the positive-negative axis.

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[1]For a detailed discussion of this aspect of the adj. R_S concept, see Chapter II, pp. 36-37.

After examining these misleading types of distributions, incremental processes were redefined as processes producing not only a relatively low rate of NI choice, but also a high rate of "central clustering", i.e., distribution where most incremental (I) choices fall between adj. R_S values of +1.00 and -1.00. Comparing the classifications generated by this technique to the original classifications generated by the tests yielded a number of tentative conclusions about the utility and limitations of the test of means approach. These were as follows:

First, the tests are inappropriate when applied to flat, dispersed but evenly split distributions. This type of distribution accounted for one-half of the apparent errors (thirteen of twenty-six).

Next, when a set of data contains less than approximately fifteen cases, the tests are more successful as indicators if R_S values greater than 6.00 are treated as outlyers. Apparently R_S values greater than 6.00 simply possess too much mathematical weight when calculating t-scores for such small data sets. In any event, when such R_S values were omitted from calculations, the tests were successful indicators 62.5 percent of the time for public works data and 93.75 percent of the time for agency-level data, sets of data where the number of cases was consistently less than fifteen.[2]

Finally, when the number of cases was greater than fifteen, the tests were more successful if no R_S values were excluded. An

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[2] Ibid., p. 68.

87.5 percent "success rate" was achieved in such instances, all of which involved the "general government" data sets.[3]

Overall, it appears that the test of means technique possesses limited utility as an indicator of budgetary incrementalism and non-incrementalism. If used at all, the results should be double-checked against graphs of the distribution pattern, against estimates of the incidence of non-incremental choice, and against some measure of the extent of central clustering around the ideal mean. If the tests and these double-checks concur, then it seems likely that the tests may be relied upon. However, when these factors conflict, the researcher should proceed with great caution.

The kind of highly general information provided by this procedure (and its double-checks) does not provide any direct proof that budget-making is occurring within an incremental process or that the decisions being made are actually incremental or not. Accordingly, a more rigorous investigation of budgeting in the two case cities was undertaken (a) to determine whether the budgetary process of each city possessed roles, values, and behavior patterns congruent with an incremental process model,[4] and (b) to test the utility of techniques by which to classify individual decisions as I or NI.[5] A general behavioral model of municipal budgetary processes was developed, based

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[3] Ibid., p. 68.

[4] See Chapter III, pp. 106-143 passim.

[5] See Chapters III and V, pp. 159-165 and 177-182, respectively.

upon the works of writers like Crecine, Wildavsky, and Anton.[6] Armed with this incremental model, a questionnaire was developed and administered to a sample of officials in both cities.

On the whole, the interviews suggested that the budgetary processes in the case cities approximated the model. Some deviance was found (as in the case of City B's council), but even this wasn't generally compatible with a model of incremental budgeting (if not with the model of municipal incrementalism posited).

It must be stressed that these findings were interpreted as, at best, only partial proof that budgeting in the case cities was incremental in nature. The interviews had demonstrated that the budgetary processes of the two cities generally conformed to the roles, values, and behavior patterns predicted by the incremental model. However, this did not constitute proof that incremental decision making actually occurred as a result of these characteristics. The most that could be claimed was that such characteristics infer or suggest that incremental choices were being made.

Accordingly, the next step was to examine a sample of recent budgetary decisions from both cities to determine whether incremental decision making was actually occurring and, if so, to what extent. This, of course, demanded that a way be found to operationalize the definitions of incremental and non-incremental decisions. Just as

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[6] See, e.g., Wildavsky, Budgeting, Chap. 6 passim; Crecine, Governmental Problem-Solving, esp. Chap. 4 and Chap. 12 passim; and Anton, Expenditure in Illinois, esp. Chap. 7 passim.

importantly, a way to check the validity of this (or any other) approach also was needed.

Accordingly, lacking access to the realm of Platonic ideals, it was therefore decided that the best way to proceed was to create two systems of operationalized definitions, each resting upon different methodological approaches. The first scheme of classification was based upon the deviation of R_S values from the ideal mean value of 0.00. Choices falling within one s-unit were labelled probably incremental; choices falling between one and two s-units were categorized as possibly non-incremental; and decisions beyond two s-units were classified as probably non-incremental. Aside from being rooted in the incrementalist notion of budgetary "fair shares," this approach had the basic advantage of being a quantitative technique of classification.[7] If found useful, it would therefore be a relatively inexpensive and rapid way for classifying choice types.

The second, "double-checking" approach was based upon interview data. Having established through the earlier questions how budgetary decisions were usually or typically made in both cities, and having found that typical decision making appeared to operate largely in incremental terms, the interviewees were also asked if specific decisions with which they had been involved were made in the typical fashion or not. If yes, then the specific decision in question was

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[7]The linkage between the R_S value and the "fair share" concept is discussed in more detail in Chapter I, pp. 23-25.

labelled incremental. If no, the decision was classified as non-incremental.

These two sets of classifications were then compared, thereby creating what was referred to as the "agreement technique." While a small number of disagreements were revealed, no statistically significant differences were found between the interview-based classifications and the PbI and PbNI classifications. However, while a majority of classifications concurred, there was a significant difference between the interview classifications and the PsNI category. Accordingly, the quantitative system appeared to be quite successful in identifying clearly incremental and non-incremental decisions, but less reliable in classifying the "middle-range" of decisions, where incrementalism seems to shift, somewhat uncertainly, into non-incrementalism.[8]

In an effort to determine the relative utility of the "R_S/s unit" approach, a number of other quantitative indicators were also compared to the "typical choice" classifications. Presented in the previous chapter, the results of these comparisons confirmed the strength of the "R_S/s unit" approach. Only one of the five other quantitative indicators examined appeared to have comparable utility.[9]

In sum, the methodological innovations developed here appear to be promising. However, there are still "bugs" which need to be worked

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[8] A more detailed discussion of these findings is in Chapter IV, pp. 164-165.

[9] This was the Fenno Technique. See Chapter V, pp. 181-182.

out. The fact that the concepts of incrementalism and non-incrementalism can apparently be operationalized opens new doors for future research on budgeting. However, the presence of the "bugs" suggests the first door we should open is one leading to further research on operationalizing these concepts.

Substantive Conclusions

Although the primary concern of this work was to explore new methodological approaches to the study of budgeting, a number of interesting substantive points about budgeting in municipalities were also found. This section summarizes such points.

First, the distribution graphs and the obtained means showed a tendency for budget data to cluster around the ideal adj. $\bar{R}_S$ of 0.00. This evidence in turn supports the "fair share" notion and, more generally, the belief that municipal budgeting tends to be incremental in nature.[10]

Secondly, budgetary priorities, measured by the size of R_S values and correlated using Pearson's r, appear to shift frequently at the municipal level. During the ten year period examined no long-term patterns of priorities emerged within any of the sets of data or in either city. Accordingly, short-term, shifting priorities appear to characterize incremental municipal budgeting systems.[11]

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[10] See Chapter II, pp. 44-49 and pp. 53-54.

[11] Ibid., pp. 78-80.

Thirdly, behavior patterns and attitudes among city officials tend to conform to an incremental model. Such officials appear to share a common set of expectations in regards to their own behavior and that of other actors. In addition, they also share common perceptions of the goals which guide their behavior. Together these behavioral expectations and goal perceptions appear to coalesce to form a role system congruent with an incremental model.[12]

In general, budgeting in the two case cities appears to be quite similar to the incremental models of budgeting found by Crecine in Pittsburgh, Cleveland, and Detroit, and by Wildavasky and Meltsner in Oakland.[13] This model congruence suggests that what Wildavsky refers to as "revenue budgeting"[14] holds not only in one city on the West coast and in three cities in the Midwest, but in two more fairly sizable cities in New England. Obviously, no valid inferences can be made from such a non-random sample, but the similarities in these geographically dispersed communities are suggested.

However, it should also be noted that variation in municipal budgetary role systems is possible, as demonstrated by the distinctive roles pursued by the city councils of the two cities studied here. Moreover, it further appears that some incremental decision rules are more widely perceived (and perhaps employed) than others. For

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[12]These findings are discussed at length in Chapter III, pp. 141-143.

[13]See Crecine, Governmental Problem-Solving, Chapter 4 passim; and Wildavsky and Meltsner, "Leave City Budgeting Alone!"

[14]Wildavsky, Budgeting, pp. 10-12.

example, the "safe base" and "marginal growth" rules were overwhelmingly acknowledged as valid. Conversely, the "fair share" rule was generally not perceived by line officials, although most overview officials accepted it.[15]

Such findings as these suggest that "real world" incremental systems may deviate to an undetermined extent from the "ideal-type" models which researchers often attempt to postulate.[16] This point is quite important because it also suggests that several "species" of the "genus," incremental systems, may exist.

From the comparison of the quantitative classification schemes, a logical conclusion is that incremental decision making is the dominant mode of decision making occurring within incremental budgeting systems. However, the incidence of non-incremental decisions (i.e., decisions not conforming to how budget choices are typically made within incremental processes) can be quite high. Roughly one in three decisions was non-incremental in both cities. Such findings strongly indicate that we need to re-examine the tacit belief that non-incremental decision making is largely irrelevant to an understanding of urban policy processes.[17]

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[15] A more detailed discussion of these findings may be found in Chapter III, pp. 123-124.

[16] See, e.g., Wildavsky, Budgeting, Chap. 6 passim; and Crecine, Governmental Problem-Solving, Chap. 4 passim.

[17] A fuller development of this argument is presented in Chapter IV, pp. 170-171.

However, it also appears that municipal budgeting would be far more incremental than it is, if it were not for the impact of external forces upon the system. Interestingly, the major external forces causing non-incremental decisions are the federal and state governments.[18] This suggests that, at a minimum, the relationship between municipal budgeting and inter-governmental relations needs closer examination.

In addition, it also suggests that the commonly accepted belief that incremental budgetary systems are largely insulated from external pressures is erroneous. It may be true (as Crecine claims) that municipal budgeting is largely unresponsive to community-based interest group politics.[19] However, as the impact of the federal and state governments on Cities A and B demonstrates, it may also be true that other types of external forces do have a significant impact on budgeting. In other words, before assuming that budgeting is insulated from the environment, it is perhaps wiser to keep one's mind open to the possibility, and to search more thoroughly for "external-internal" relationships.

In sum, the substantive findings of this research supports the conclusion that municipal budgeting is incremental budgeting. However, variations in these incremental processes may exist, and budgetary choice is perhaps less incremental than often assumed. In addition, external forces appear to play a rather important role in

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[18] See Chapter IV, pp. 168-69.

[19] Crecine, Governmental Problem-Solving, p. 219.

municipal budgeting, a point often overlooked because of the misguided belief that budgetary systems are insulated by ritualized, bureaucratic routines. In short, while municipal budgeting may be incremental in nature, a more complete grasp of such decision making processes will seemingly require not only more and better designed research, but also an awareness that incremental budgeting is not necessarily the neat, simple, closed system that is frequently presumed.

Incrementalism and Other Models of Urban Policy Analysis

The purpose of this section is to discuss possible linkages between the incremental model and other models of urban policy analysis. While there are a myriad of "competitors," the "other models" which will be dealt with here are the community power, systems, and political culture models.

One reason for this theory-building exercise is that it will hopefully enable us to broaden our understanding of both budgeting and incrementalism. Another is that such an endeavor may prove useful by suggesting additional avenues for future research.

To provide some sort of organizing principle to the discussions which follow, one question was chosen to serve as a theme: viz., to what extent, if any, does this model help us to understand municipal budgeting? While some speculation was unavoidable, the answers given to this question try to reflect implications drawn from the substantive findings.

It should be noted here that all three of the models discussed below essentially posit government policy as the "effect" of "causes" external to government. Thus, the power model argues that policy occurs in response to an elite or to group power struggles. Thus, the systems model sees policy as the output of any of a number of environmental inputs. Thus, the political culture model assumes that policy reflects the cultural values which a society holds, or the ideological values which the dominant class propagates.

In contradistinction, the incremental model has generally maintained that budgetary choice, one important form of policy-making, is primarily determined by factors internal to government, factors like the budgetary role system, bureaucratic routines, and internalized decision rules. As noted earlier, this "internal focus" of the model places it in apparent conflict with the "external focus" of the other models.[20]

Of course, the seriousness of this apparent conflict is highly questionable in light of a number of the substantive findings.[21] However, the concern of the discussions which follow is not whether these other models are inferior or superior to the incremental model. Instead, an attempt will be made to combine them with the incremental approach. In short, the question to be examined is whether these other models help us to understand municipal budgeting. And to answer

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[20] A more detailed discussion of the "internal-external" debate is presented in Chapter IV, pp. 169-71.

[21] Ibid., pp. 167-71.

this question, it is necessary to determine to what extent these models can account for budgetary incrementalism.

Before proceeding, two caveats must be entered. First, because the boundaries for this research precluded the pursuit of definitive answers to such theoretical matters, the discussions which follow are quite impressionistic. Second, for the sake of brevity, no effort is made here to explicate fully the intricacies of either the models per se or of the linkages seen between the models. As a result, the discussion that follows should be viewed as only suggestive, not definitive.

The community power model. There will be two questions examined here. First, to what extent do community power structures, as traditionally defined, help to explain municipal budgeting? And, secondly, within that part of the city's "power structure," which Hofferbert refers to as the "governmental elite,"[22] to what extent does the distribution of power among public officials affect the nature of budgetary choice?

In simplified terms, the community power model may be divided into two fundamentally opposed camps. On one hand, there are the elitists, a group which contends that urban policy decisions tend to reflect the interests and concerns of the city's "power structure." This power structure is often pictured as monolithic in nature, and as

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[22]Richard I. Hofferbert, "Elite Influence in State Policy Formation: A Model for Comparative Inquiry," Polity (Spring 1970), pp. 329-30.

composed largely of "economic notables."[23] Bluntly stated, this line of argument claims that municipal policy largely reflects the interests of a ruling class.

On the other hand, there are the pluralists. They envision municipal policy as the outcome of conflicts and/or compromises between shifting coalitions of community leaders, be they private citizens or public officials. Such leaders tend to represent constituencies of politically active groups within the community. Presumably, policy tends to reflect primarily the interests of such contending groups. However, the interests of the "apolitical masses" are also taken into account because, again presumably, the activists anticipate their reactions, especially reactions which might occur if the public is dissatisfied with a decision or unhappy about violations of the "rules of the game."[24]

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[23]This summary of the elitist position is based on a discussion found in David Ricci, Community Power and Democratic Theory: The Logic of Political Analysis (New York: Random House, 1971), Chap. 5 passim. Some of the "classics" in elitist-oriented community power studies would, of course, include Robert S. and Helen M. Lynd, Middletown (New York: Harcourt, Brace and Company, 1929); Lloyd Warner et al., Democracy in Jonesville (New York: Harper and Row Publishers, 1949); and, especially, Floyd Hunter, Community Power Structure (Chapel Hill: University of North Carolina Press, 1953).

[24]This outline of the pluralist position is drawn from Ricci, Community Power and Democratic Theory, Chap. 7 passim. Some of the "classics" of this approach would include Robert Dahl, Who Governs? (New Haven: Yale University Press, 1961); and Nelson Polsby, Community Power and Political Theory (New Haven: Yale University Press, 1963). Useful summaries of the community power debates may be found in Jack Walker, "A Critique of the Elitist Theory of Democracy," American Political Science Review 60(June 1966):285-295; and Thomas Anton, "Power, Pluralism, and Local Politics," Administrative Science Quarterly 7(March 1963):425-457. Interestingly, later studies suggested that there appeared to be many types of power structures. See

No evidence emerged during the course of this study which suggests that budgetary decision-making is greatly affected by "competing interest groups" within either city. To some extent, fears about "declining tax bases" appear to reflect a concern about the loss of private enterprise. And therefore, it is possible to argue that "economic notables," as a generalized class rather than as specific individuals, have an important, if indirect influence on budgeting.[25] However, the concern over tax base erosion also reflects a process of anticipating undesired reactions by the "apolitical masses," especially that part of the "masses" which pays property taxes. Obviously, this fear of the "taxpayers" undermines the proposition that budgeting is incremental because of fiscal constraints imposed by a monolithic elite of "economic notables." Accordingly, the explanatory power of the elitist model must also be questioned.

It may be possible that understanding local budget-making is better served by focusing upon the power relationship which exists within the "governmental elite"; i.e., that part of the community power structure composed of formal office holders. Unfortunately,

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Terry N. Clark, "Community Structure, Decision-Making, Budget Expenditures, and Urban Renewal in 51 American Communities," American Sociological Review 33(August 1968):576-594; Claire Gilbert, "Community Power and Decision-Making: A Quantitative Examination of Previous Research," in Terry N. Clark (ed.), Community Structure and Decision-Making (San Francisco: Chandler Publishing Company, 1968), pp. 139-159; and Amos Hawley, "Community Power and Urban Renewal Success," American Journal of Sociology 68(June 1968):422-431.

[25]This point and the one preceding it (i.e., concerning "competing interests") are similar to findings reported by Crecine, p. 219.

here too a rather clouded pictures emerges. In City A, where the council plays a "rubberstamp" role, Wildavsky's notion of "executive dominance" appears to hold.[26] However, in City B where the council pursues a more active "guardian" role, the extent of such dominance is a matter of debate.

Moreover, it is conceivable that the question of "who has power" is largely irrelevant to understanding budgetary choice. Agency heads may be able to structure the range of choice available to their political superiors, and may be capable of withholding key services if their base funds are cut too greatly.[27] However, they do not expect rapid budget expansion, and accept the fact that higher authorities will almost inevitably trim back their requests. Chief executives may be formally empowered either to increase or to cut budget submissions. However, they seldom, if ever, engage in the former, and are quite restrained in doing the latter. Moreover, even when able to "dominate" a "rubberstamp" council, their apparent power may well rest upon council indifference, so long as tax hikes are minimized and services are maintained. And for their part, councils may possess the formal authority to approve, cut, or reject all or part of the executive budget. However, their employment of this power appears to be

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[26]Wildavsky, Budgeting, p. 128.

[27]"Off the record," but reliable sources in City B reported that once, when the Traffic Engineering Department received an unexpected cut in funding, its director responded by placing black hoods over traffic signals in and around the downtown area. This "withholding of key services" resulted in prompt action on a supplemental appropriation for the department.

limited largely to approving submissions and/or to making a limited number of minor cuts.

In short, since budgetary choice is played out within sets of mutual expectations concerning prescribed behavior and acceptable goals, power, defined as the ability to impose one's preferences on others, may possess little explanatory utility for budgeting.[28] In other words, it may make more sense to argue that the role system itself is the most powerful "actor" in the system. Viewed in less reified terms, this means that the various players, regardless of position or formal authority, operate within a well-defined system of power in which "proper" behavior is enforced by the actions and reactions occurring between the sets of players.

Support for this proposition is available from the interview data presented in Chapter III. Here we find support for the existence of an incremental role system complete with incremental behavior, incremental goals, and incremental expectations. In addition, in Chapter IV, we also find that most decisions are incrementally geared toward making marginal, maintenance-oriented adjustments to on-going programs. And non-incremental decisions occur largely because the actors are forced (or highly pressured) to make them by such external phenomena as other levels of governments. In short, budgetary choice

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[28]Frank Parkin, Class, Inequality and Political Order (New York: Praeger Publishers, 1971), p. 45.

appears to be a function of each actor's inability to resist the pressures imposed upon them by other actors and/or by external forces.[29]

Summary: the community power model. In sum, the findings of this research do not suggest that the community power literature is capable of contributing much to our understanding of municipal budgeting. From the pluralist point of view, the evidence supports the notion that public officials are concerned with anticipating the reactions of the (tax paying) general public. However, no evidence was found indicating that interest group competition had much, if anything, to do with making budgetary decisions. From the elitist orientation, it is possible to argue that "economic notables" have an indirect effect upon budgeting. However, this must be balanced against the influence of the general taxpayers. Which, if either of these groups have more influence is impossible to judge on the basis of the data. Accordingly, the utility of the elitist model must also be questioned.

As for power relationships within the "governmental elites" of Cities A and B, it appears that both operate within a role system, which in one sense can be viewed as a "power system." That is,

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[29]For the sake of conciseness, the picture painted here is perhaps too deterministic. In fairness, it should be noted that the various actors do appear to have some control over the items contained within the incremental funding decisions being made, and that they are also capable of "breaking out" of the system to make an occasional non-incremental choice on their own volition (as, e.g., when they are engaged in governmental reorganization efforts).

budgetary choices are generally made in conformance with the "dictates" of that system, not in accordance with the dictates of more powerful actors or sets of actors. Thus, as a general rule, the question of "who has power" within budgetary processes also possesses limited utility as an approach for better understanding such processes.

The systems model. Turning now to the systems (or "input-output") model, its general assumption is that policy decisions are shaped by inputs from forces external to the so-called "black box," i.e., the governmental decision making hierarchy. As in the previous case, there are essentially two camps among the advocates of this model: (a) those who attempt to demonstrate the importance of "political/governmental" inputs like inter-party competition or "reformism";[30] and (b) those who attempt to demonstrate the importance of socio-economic inputs like per capita income or industrialization.[31]

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[30]E.g., see Robert Lineberry and Edmund P. Fowler, "Reformism and Public Policies in American Cities," American Political Science Review 61(September 1967):701-717; Allen Palsipher and James J. Weatherby, "Malaportionment, Party Competition, and the Functional Distribution of Government Expenditures," American Political Science Review 62(December 1968):1207-1219; Charles Cnudde and Donald McCrone, "Party Competition and Welfare Policies in the United States," American Political Science Review 63(September 1969):858-866; Bryan Fry and Richard Winters, "The Politics of Redistribution," American Political Science Review 64(June 1970):508-522; Ira Sharkansky and Richard I. Hofferbert, "Dimensions of State Policy," in Hebert Jacob and Kenneth Vines (eds.), Politics in the American States 2nd ed. (Boston: Little, Brown and Company, 1971), pp. 315-353.

[31]See, e.g., Richard E. Dawson and James A. Robinson, "Inter-party Competition, Economic Variables, and Welfare Policies in the American States," Journal of Politics 25(May 1963):265-289; Robert Alford and Harry M. Scoble, "Political and Socioeconomic Characteristics of Cities," in The Municipal Yearbook: 1965 (Chicago:

However, as Phillip Coulter has suggested, both of these camps endeavor to explain the effects of their variables largely in terms of a pluralist scenario wherein policy decisions result from the conflicts, bargains, and compromises which occur between contending political, social, and/or economic groups within the community.[32]

As noted before, there is little if any evidence found here suggesting that budgetary decisions are directly and immediately influenced by such pluralist competition. A partial exception might be the two non-incremental decisions, one per city, that were responses to rioting.

On the other hand, discarding the pluralist "cargo" from the systems approach, it is still possible to cite a number of governmental, political and economic "inputs" which may indeed affect municipal budgeting, and help to create both incremental and non-incremental "outputs." The most obvious source of incremental outputs is, of course, the "governmental input" of the role system. And this input may itself be (at least in part) the output (or intervening variable) brought about by such real or potential inputs as negative voter

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International City Management Association, 1965), pp. 82-97; Robert Alford and Eugene Lee, "Voting Turnout in American Cities," American Political Science Review 62(September 1968):796-814; Thomas R. Dye, Politics, Economics, and the Public (Chicago: Rand McNally, 1966); plus his "Governmental Structure, Urban Environment, and Educational Policy," Midwest Journal of Political Science 11(June 1967):353-380.

[32]Phillip B. Coulter, "Comparative Community Politics and Public Policy: Problems in Theory and Research," Polity 3(Fall 1970):23-24.

reactions to declining services or higher taxes (a political input), and erosion of the tax base (an economic input). In short, incremental decision making may be as much a function of anticipated "inputs" from the external environment as it is a function of internal bureaucratic routines.

In addition, external political and economic factors also appear to affect municipal budgeting through non-incremental decision making. For example, one way of looking at the intervention of the state and federal governments into "local affairs" is that these governments serve as conveyor belts for inputs by economic, social, and political forces. Thus, national concern for the environment may prompt the federal government to require cities to reduce sewage pollution (this, in fact, occurred in City A with the result of a non-incremental budget decision).[33] Similarly, economic conditions, both locally and nationally, influence the amount of CETA funds which flow into communities, funds used in at least one of the cities to absorb (or more precisely, as an excuse for) non-incremental cuts in locally funded labor costs.[34]

Summary: the systems model. To summarize, if we were to interpret municipal budgeting in terms of the systems model, the first point which might be made is that municipal budget-making is strongly

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[33]Interview with Director, Bureau of Sewers, City A, 20 August 1976.

[34]Interview with Personnel Director, City B, 18 August 1976.

affected by the "governmental variable" of a budgetary role system. Within this role system, the goals and decision making behavior of different actors appear to be fairly regularized, if not routinized.

However, this role system appears to be, at least in part, a response to economic and political pressures from the community, pressures which, if not responded to by officials, could prove to be destabilizing to the governmental system, the political process, and/or the community's well-being in general. And finally, in addition to these "incrementally oriented" pressures, other environmental pressures, fed into the system by such agents as the state and federal governments, effectively demand (if not require) the creation of non-incremental outputs as well.

In short, by providing a conceptual framework which links the "black box" of incrementalism to the external environment, the systems model is not only compatible with the incremental approach, but appears to offer potentially useful insights as to why incremental processes arise and as to why such processes sometimes behave non-incrementally. In other words, unlike the community power model, the systems approach is able to account for incrementalism, and thus helps to expand our grasp of municipal budgeting.

The political culture model. Turning now to the political culture (or more precisely, the phenomenological) model, it also possesses two camps within it: (a) those who see policy outputs affected by the

conflicts between a variety of value systems,[35] and (b) those who see policy outputs largely in terms of a response to a single value system, such as cultural values or a dominant ideology.[36] From the outset, it bears repeating that this study finds little evidence supporting a conflict model, regardless of whether the conflict flows from competing interests, conflicting social classes, or contending value systems. Accordingly, "camp A," the multiple value system model, seems largely inappropriate as an explanation for municipal budgeting. Therefore, the focus of this discussion will be the single value system variant.

One approach to applying this type of model would be to argue that municipal budgeting is a decision making process in which a variety of political and economic "realities" give rise to certain types of values (e.g., tax restraint and service maintenance) among city officials. These values in turn generate a system of congruent behavior patterns within city hall. And together, these values (or

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[35]See, e.g., James Q. Wilson and Edward C. Banfield, "Public-Regardingness as a Value Premise in Voting Behavior," American Political Science Review 58(December 1964):868-887; and Rovert Agger, Daniel Goldrich, and Burt Swanson, The Rulers and the Ruled (New York: John Wiley and Sons, Inc., 1965).

[36]See, e.g., Gabriel Almond and Sidney Verba, The Civic Culture (Boston: Little, Brown and Company, 1975); Donald J. Devine, The Political Culture of the United States: The Influence of Member Values on Regime Maintenance (Boston: Little, Brown and Company, 1972); Daniel Elazar, American Federalism: A View from the States (New York: Thomas Y. Crowell Company, 1966), especially pp. 81-116; Kenneth Dolbeare and Murray Edelman, American Politics 2nd ed. (Lexington, Massachusetts: D. C. Heath and Company, 1974); and Michael Parenti, Democracy for the Few (Boston: St. Martin's Press, 1975).

goals) and the resulting behavior patterns give definition to what is known as an incremental decision-making process. The operation and outputs of this process tend to satisfy the dominant values, and, through a system of immediate and anticipated penalties embedded within it, the system reinforces continued adherence to the values. In short, the objectification of an "incremental ideology" appears to provide a useful explanation for understanding how and why most budget decisions are made.

This "incremental ideology" may or may not be a response to a more general system of values. If not, then the most that can be said is that a phenomenological approach appears to be of some use in analyzing budgeting, but that the political culture model per se is irrelevant.

On the other hand, if we make a theoretical "leap of faith" and assume that "political culture" does affect municipal budgeting, then we can begin to speculate on ways to apply this approach. Unfortunately, this task is made quite difficult because there are a variety of such models, each with different assumptions and/or different geographical foci. In light of this problem, only a single (and simple) illustration of the model's application will be presented here.

Viewed on a large canvas, municipal incrementalism might be seen as the resultant of a national political culture. Here, the key elements are the societal values which give rise to those political and economic "realities" which in turn generate the incremental "response." For example, the focal point of analysis might be the acceptance by

Americans of values like "grass roots democracy" (giving impetus to what Robert Wood has called our suburban "republics in miniature")[37] and "limited government" (which presumably underlies our preference for fragmented political power).[38] Such values as these (and others, such as Macpherson's "liberal individualism")[39] could be viewed as the "key" variables accounting for municipal taxpayers' attitudes toward taxation, the "freezing" of middle-class assets in suburban areas, and the self-defeating competition between cities to attract and/or keep tax-generating businesses. In this line of reasoning, the objectification of traditional values over time has placed our municipalities in a situation where incremental budgeting is an unavoidable necessity, and where the "incremental ideology" is the only viable response for city officials. In other words, city officials are trapped within the "social realities" borne of a national political culture.[40]

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[37]Robert Wood, "Republics in Miniature," in Politics in the Metropolis: A Reader in Conflict and Cooperation, ed. Thomas R. Dye and Brett W. Hawkins (Columbus, Ohio: Charles E. Merrill Books, Inc., 1967), pp. 326-334.

[38]Vincent Ostrum, The Intellectual Crises in American Public Adminstration (University, Alabama: The University of Alabama Press, 1973), p. 77.

[39]C. B. Macpherson, The Real World of Democracy (New York: Oxford University Press, 1972), pp. 6-8.

[40]This line of reasoning is drawn from Peter L. Berger and Thomas Luckman, The Social Construction of Reality: A Treatise in the Sociology of Knowledge (New York: Doubleday and Company, Inc., 1966), pp. 19-21 and 60-61. A flaw in the argument is, of course, that incremental budgetary systems have allegedly been found in foreign nations. See, e.g., Heclo and Wildavsky, The Private Government of Public Money.

Such analysis as this, of course, is highly speculative, not to mention virtually impossible to prove in an empirical sense. Its significance, if any, is that it suggests linkages between budgeting and the cultural milieu in which budgeting takes place. Such linkages may in turn be instructive to would-be budget reformers, because it suggests that far more sweeping reforms are necessary to abolish "mindless" incrementalism than simply converting public officials to a counter-ideology of "efficiency and effectiveness." That is, if incremental budgeting is in fact a response to and symptomatic of a much larger socio-cultural system, then "meaningful" reform (whatever that may be) may entail the reform of that larger system first. In turn, changes in incrementalism and what Schick refers to as the "control orientation" may then more readily follow.[41]

A second advantage for students of budgeting is that this approach, unlike the systems model posited, adds an historical dimension to the explanation of why incremental choice dominates municipal budgeting. Its essential thrust is that traditional social values have over time brought about political phenomena which make incremental budgeting necessary.

Unfortunately, this historical dimension, as developed here, is presented in overly simplistic terms. To paraphrase Allison's critique of the "rational actor" model, what has occurred here is that those "basic" American values which seem to fit the facts have been

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[41]Schick, Budget Innovation, p. 4 and p. 6.

posited as explaining those facts.[42] No doubt other values could be used for explanatory purposes.

Moreover, there is little doubt that the importance and impact of different values have shifted over time. For example, if suburbs reflect, as Wood insists, the ideals of Jeffersonian "grass roots democracy," why is it that incorporated suburban "rings" did not begin to really develop until, as Lowi notes, the 1930's?[43] And, more importantly, was municipal budgeting prior to this time incremental in nature? Was it incremental when "machine" politics dominated the cities?[44] Or did it only become incremental after the progressive values of "neutral competence" and "strong executives" displaced the corruption wrought by Jacksonian "representativeness"?[45]

The point of such queries is that, if one wishes to explain incremental budgeting using a "political culture" model, then great care must be taken to avoid simplistic and unilinear linkages between "old" values and "current" conditions. The history of American cities

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[42]Graham Allison, Essence of Decision: Explaining the Cuban Missile Crisis (Boston: Little, Brown and Company, 1971), p. 35.

[43]Theodore J. Lowi, The End of Liberalism: Ideology, Policy, and the Crises of Public Authority (New York: W. W. Norton and Company, Inc., 1969), p. 195.

[44]Allen Schick provides a useful list of characteristics for nineteenth century budgeting, a list which clearly illustrates the sharp procedural differences between budgeting under unreformed, "machine" politics and budgeting today with its legalistic "control orientation." See Schick, Budget Innovation, pp. 14-15.

[45]Herbert Kaufman, "Emerging Conflicts in the Doctrines of Public Administration," American Political Science Review 50(December 1956):1057-1973.

suggests anything but a neat linear development, either for value orientations or for governmental structures and procedures. Obviously, explaining incrementalism in terms of this model would require an enormous amount of historical research and of testing (if possible) the "fit" of different "value scenarios." And, even then, the conclusions would no doubt still be subject to challenge and debate.

It should be stressed that the example of the political culture approach presented above is meant to be taken not as a definitive explication but simply as a tentative illustration. As such, it is hopefully suggestive of avenues of research seldom considered by most researchers.

Summary: the political culture model. To summarize, the single value system variant of the phenomenological model seems to have some potential for expanding our comprehension of municipal budgeting. From a short-term perspective, the "grip" of an "incremental ideology" offers a possible explanation for the dominance of incremental decision making. And from a more historical frame of reference, a "political culture" approach suggests reasons why incrementalism has repeatedly "defeated" opposing "rational" reforms, as well as insights into how incrementalism is reinforced (even caused) by the "social realities" which surround it.

Overall, the insights offered by the model are only suggestive, indeed speculative. Nevertheless, like the systems model, it too is able to accommodate the findings of this study, and to offer new avenues for research.

Comparing the Models

Overall, of the three models of urban policy analysis discussed above, the systems and political culture approaches appear to be the most useful. Power structure models, as normally defined, seem to be largely irrelevant to broadening our insights into municipal budgeting. Conversely, the other two models enable us to view budgetary behavior as it occurs within socio-economic and/or cultural contexts. Although the pictures they provide are admittedly fuzzy and impressionistic, a clear enough image emerges to raise doubts that municipal incrementalism is a process "insulated" from environmental factors.

In addition, both the system and political culture models suggest rationales for why incremental choice is the dominant mode of decision making within municipalities. Along these lines, the systems approach appears to be less historical than the political culture model, and more concerned with immediate causation.

Conversely, while the political culture approach appears better able to provide an historical dimension, its ability to do so adequately may be plagued by the problem of oversimplifying complex historical realities and/or of getting lost in the "forest" of those complexities. In any event, the complexities of urban history undoubtedly will render any such effort subject to doubt and challenge.

While the system model may be ahistorical, it nonetheless possesses one great advantage over the culture approach: viz., unlike the latter, it seems better able to account for non-incremental decisions. Thus, if it is potentially less capable of offering a full

explanation of the dominance of one type of choice, it is superior in that it can offer rationales for both types of decision making. The political culture approach, no doubt, might be stretched to incorporate such phenomena, but given their particularistic causes (e.g., recent concern over the environment, recent economic problems), such stretching would require specialized explanations for each type of immediate cause. On the whole, it appears that the "culture" model is better suited to offering long-term explanations of general, recurring phenomena, whereas the systems model is more appropriate for suggesting immediate, short-term explanations for both general, recurring and specific non-repetitive events. Hence, the latter model is less historical in its explanations, but able to deal with a broader range of phenomena.

Whatever the relative merits of these two approaches, it should also be pointed out that both may offer incomplete explanations of municipal incrementalism. The discussions offered here have sought to suggest explanations for this phenomenon. However, available evidence indicates that incremental choice dominates public budgeting at the state level, in the federal government, and even in foreign nations.

This point suggests that budgetary incrementalism may not be a function of either socioeconomic or cultural factors. Instead, it may be the inevitable result, as Wildavsky asserts, of human kind's innate inability to handle the complex calculations required by more "rational" modes of decision making.[46]

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[46]Wildavsky, Politics, pp. 206-207.

If true, then the systems and culture models may be useful only for illustrating the different types of conditions and values to which incrementalism can adapt. In other words, it is possible that cultural and environmental factors are able to explain variants of the incremental model (and/or deviations from it), while our intellectual limitations explain the wide use of the model *per se*.

Accordingly, incremental budgeting, perhaps slightly improved by, e.g., productivity systems and selective analysis, may be the only viable way for humans to make budgetary decisions. And "grand" theories, like the systems and culture models, may be found to have only incidental relevance for explaining incremental choice.

Final Comments

In this chapter, a review has been presented of the methodological and substantive findings of this study. The implications of these findings for different models of urban policy analysis were discussed, and the utility of these models for broadening our understanding of municipal budgeting was examined. Rather than rehashing these topics (or summarizing the summary chapter), a few closing comments concerning the goals of this research project seems *apropos*.

First, this study tried to develop and to examine new methodological approaches for the study of budgeting. To this end the ratio of shares (R_S) statistic was developed to indicate the extent to which any given budget choice approximates an ideal "fair share" value of

1.00 (or, adjusted, a value of 0.00). In turn, this ideal value was used as the mean of a hypothetically ideal incremental process, and, employed in tests of significant differences between means to indicate if a set of budget data was the output of an incremental process (this procedure produced rather mixed results). And finally, standard deviation units around this ideal mean were used to indicate whether specific budget choices are incremental or non-incremental decisions. Double-checked against respondents' perceptions of the typicality or atypicality of selected decisions, this procedure appears to be generally reliable as an indicator, indeed significantly more so than a number of other possible approaches.

Overall, the principal lesson to be drawn from these new approaches is that it does appear feasible to develop useful quantitative indicators through which to classify budget decisions and, even, budgetary processes. However, given the small number of cases studied (i.e., two cities), plus the exploratory nature of the work itself, it is evident that more work and research is necessary to refine these procedures and/or to develop better ones.

The second basic goal of this research was to provide additional evidence by which to confirm or to deny the validity of the incremental budgeting model. As was noted in Chapters I and IV, previous works have concentrated upon demonstrating the existence of roles, values, and behavior patterns consistent with that model. However, none of these works have adequately advanced the process of proof one

step further by determining whether (and to what extent) incremental decisions actually occurred as a result of these characteristics.

The evidence presented in this study supports the notion that incremental decisions do indeed flow from incremental processes. However, it also suggests that the incidence of non-incremental decision making is substantially greater than often assumed.

In sum, while it appears that the incremental model is a valid explanation for much, indeed most budgetary decision making, more research needs to be undertaken to determine whether variants of the basic model exists, to examine the causes (and the implications) of non-incremental choice, and to explore the interplay between the forces of incrementalism and those of non-incrementalism.

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APPENDIX A

THE VALUES AND CLASSIFICATIONS OF THE BUDGET DATA

This appendix contains tables which show the afc values, adj. R_S values, and choice-type classifications of the entire array of budget data. The data is organized by organizational category (i.e., general government data, public works data, agency-level data), by year, and by city. Altogether this yields six tables. In the last two columns of each of these tables (i.e., the columns for the 1973-75 and 1975-76 funding change periods), a number of the items are underlined. This designates the budgetary decisions which were part of the stratified random sample of decisions.

TABLE 32

CITY A: PUBLIC WORKS PROGRAM

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc.	$AdjR_S$	Class.
Administration	5.0	1.94	PbI	8.1	4.06	PbI	9.2	(.10)	PbI	1.9	(.80)	PbI
Street Lights	(3.9)	(3.29)	PbI	(.1)	(1.06)	PbI	.7	(.93)	PbI	11.7	.24	PbI
Street Cleaning	(11.2)	(7.59)	PsNI	19.5	11.19	PsNI	1.3	(.87)	PbI	.1	(.99)	PsNI
Ashes and Refuse	8.0	3.51	PbI	5.1	2.19	PbI	23.2	1.27	PbI	(11.1)	(2.18)	PbNI
Snow Removal	24.9	13.65	PbNI	5.3	2.31	PbI	8.4	(.18)	PbI	8.7	(.08)	PbI
Plants and Structures	5.2	2.06	PbI	10.6	5.62	PsNI	(6.3)	(1.62)	PbI	.01	(1.00)	PsNI
Sewer Construction	(9.1)	(6.35)	PsNI	40.0	24.00	PbNI	(33.6)	(4.29)	PbNI	61.3	5.52	PbNI
Sewer Maintenance	10.9	5.41	PsNI	17.5	9.94	PsNI	2.9	(.72)	PbI	6.7	(.29)	PbI
Highway Construction	0.0	(1.0)	PbI	53.8	32.62	PbNI	(34.0)	(4.33)	PbNI	(84.8)	(10.02)	PbNI
Highways and Bridges	(5.4)	(4.18)	PbI	10.4	5.50	PsNI	13.0	.27	PbI	1.1	(.88)	PbI
Traffic Engineering	1.1	(.35)	PbI	4.6	1.88	PbI	11.1	.09	PbI	4.1	(.56)	PbI
Engineering	5.8	2.41	PbI	8.1	4.06	PbI	3.6	(.65)	PbI	2.6	(.72)	PbI
Sidewalk Construction	--	--	--	--	--	--	--	--	--	100.0	9.64	PbNI
Municipal Afc	1.7	--		1.6	--		10.2	--		9.4	--	
Public Works s-unit	--	--	±5.09	--	--	±5.12	--	--	±1.68	--	--	±.93

Table 32. Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
Administration	9.0	(.80)	PbI	13.3	(.16)	PbI	14.7	.43	PbI	2.6	(.71)	PbI
Street Lights	1.2	(.86)	PbI	3.0	(.81)	PbI	29.0	1.82	PsNI	11.4	.28	PbI
Street Cleaning	10.8	.26	PbI	(32.6)	(3.06)	PbNI	5.6	(.46)	PbI	5.1	(.43)	PbI
Ashes and Refuse	8.8	.02	PbI	1.2	(.92)	PbI	8.3	(.19)	PbI	2.5	(.72)	PbI
Snow Removal	(20.7)	(3.41)	PbNI	50.4	2.19	PsNI	(16.9)	(2.64)	PbNI	3.9	(.55)	PbI
Plants and Structures	8.5	(.01)	PbI	2.4	(.85)	PbI	28.6	1.78	PsNI	(5.4)	(1.61)	PsNI
Sewer Construction	(100.0)	(12.63)	PbNI	--	--	--	--	--		100.0	10.23	PbNI
Sewer Maintenance	8.2	(.05)	PbNI	3.5	(.78)	PbI	9.5	(.08)	PbI	(64.5)	8.25	PbNI
Highway Construction	400.0	45.5	PbNI	6.7	(.58)	PbI	275.0	25.7	PbNI	70.0	(8.87)	PbNI
Highways and Bridges	12.6	.47	PbI	14.1	(.11)	PbI	23.9	1.32	PsNI	(2.6)	(1.29)	PsNI
Traffic Engineering	8.1	(.06)	PbI	(.8)	(1.05)	PbI	17.8	.73	PbI	17.2	.93	PbI
Engineering	7.2	(.16)	PbI	18.8	.19	PbI	.9	.91	PbI	(6.0)	(1.67)	PsNI
Sidewalk Construction	66.7	6.76	PbNI	(4.8)	(1.30)	PsNI	(100.0)	(10.71)	PbNI	100.0	10.24	PbI
Municipal Afc	8.6	--		15.8	--		10.3	--		8.9	--	
Public Works s-unit	--	--	±.99	--	--	±1.12	--	--	±1.26	--	--	±1.03

TABLE 33

CITY A: GENERAL GOVERNMENT PROGRAMS

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
Mayor	(2.0)	(2.18)	PbI	22.6	13.12	PbNI	4.0	(.71)	PbI	17.5	.86	PbI
City Council	(3.6)	(3.12)	PbI	53.0	32.12	PbNI	(.3)	(1.03)	PbI	(3.4)	(1.36)	PsNI
Auditor	1.6	(.06)	PbI	4.2	1.62	PbI	6.1	(.40)	PbI	0.02	(1.00)	PbI
Data Processing	21.3	11.53	PbNI	2.3	.44	PbI	21.3	1.09	PbI	14.5	.54	PbI
City Clerk	9.0	4.29	PbI	.1	(.94)	PbI	4.5	(.56)	PbI	(1.5)	(1.12)	PbI
Treasurer	7.5	3.41	PbI	7.9	3.94	PbI	11.1	.09	PbI	0.1	(.99)	PbI
Collector	(1.9)	(2.12)	PbI	2.7	.69	PbI	5.0	(.51)	PbI	2.4	(.74)	PbI
Assessor	0.6	(.65)	PbI	2.6	.62	PbI	5.3	(.48)	PbI	6.2	(.34)	PbI
License Commission	(5.1)	(4.00)	PbI	2.6	.62	PbI	7.9	(.23)	PbI	3.8	(.60)	PbI
Purchasing	5.0	1.94	PbI	7.0	3.38	PbI	17.6	.72	PbI	(7.2)	(1.72)	PsNI
Law Department	3.0	.76	PbI	10.3	5.44	PbI	4.6	(.55)	PbI	(5.8)	(1.62)	PsNI
Planning	(2.9)	(2.71)	PbI	(1.4)	(1.88)	PbI	8.0	(.22)	PbI	7.8	(.17)	PbI
Personnel	(3.4)	(3.00)	PbI	(10.1)	(7.31)	PsNI	0.03	(1.00)	PbI	(13.5)	(2.44)	PbNI
Election Commissioner	12.8	6.53	PsNI	(4.0)	(3.50)	PbI	2.8	(.73)	PbI	7.3	(.22)	PbI
Grand Army Hall	5.2	2.06	PbI	5.6	2.50	PbI	4.3	(.58)	PbI	0.9	(.90)	PbI
Youth Service Commiss.	4.1	1.41	PbI	10.0	5.52	PbI	6.8	(.33)	PbI	0.2	(.98)	PbI
Human Services	4.9	1.88	PbI	(4.0)	(3.50)	PbI	14.1	.38	PbI	(9.3)	(1.99)	PsNI
Public Housing	100.0	57.82	PbNI	469.0	292.12	PbNI	47.4	3.65	PbNI	(1.9)	(1.20)	PsNI
Model Cities	--	--	--	100.0	61.50	PbNI	12.5	.22	PbI	0.0	(1.00)	PbI
Civic Center	--	--	--	--	--	--	100.0	8.80	PbNI	12.8	.36	PbI
Municipal Afc	1.7	--		1.6	--		10.2	--		9.4	--	
Gen. Govt. s unit	--	--	±5.33	--	--	±6.51	--	--	±1.29	--	--	±1.15

TABLE 33--Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
Mayor	6.3	(.27)	PbI	10.0	(.32)	PbI	30.0	1.91	PsNI	(1.2)	(1.13)	PbI
City Council	2.5	(.71)	PbI	85.3	4.40	PbNI	(4.0)	(1.39)	PbI	1.8	(.80)	PbI
Auditor	8.7	.01	PbI	15.7	(.01)	PbI	10.8	.05	PbI	6.2	(.30)	PbI
Data Processing	5.4	(.37)	PbI	14.5	(.08)	PbI	8.6	(.17)	PbI	3.5	(.61)	PbI
City Clerk	11.2	.30	PbI	5.6	(.65)	PbI	15.8	.53	PbI	3.3	(.63)	PbI
Treasurer	2.3	(.73)	PbI	6.1	(.61)	PbI	15.9	.54	PbI	1.1	(.88)	PbI
Collector	2.9	(.66)	PbI	14.1	(.11)	PbI	2.3	(.78)	PbI	4.9	(.45)	PbI
Assessor	3.3	(.62)	PbI	2.4	(.85)	PbI	8.6	(.17)	PbI	5.2	(.42)	PbI
License Commission	11.7	.36	PbI	(70.9)	(5.49)	PbNI	0.7	(.93)	PbI	3.1	(.65)	PbI
Purchasing	10.1	.17	PbI	1.7	(.89)	PbI	10.9	.06	PbI	5.8	(.35)	PbI
Law Department	11.1	.29	PbI	19.5	.23	PbI	13.3	.29	PbI	94.9	9.67	PbNI
Planning	14.9	.73	PbI	10.8	(.32)	PbI	0.2	(.98)	PbI	5.4	(.39)	PbI
Personnel	14.9	.73	PbI	11.5	(.27)	PbI	9.6	(.07)	PbI	12.1	.36	PbI
Election Commissioner	15.0	.74	PbI	(2.2)	(1.14)	PbI	8.4	(.18)	PbI	12.8	.44	PbI
Grand Army Hall	6.7	(.22)	PbI	(15.9)	(2.01)	PsNI	8.9	(.14)	PbI	4.5	(.49)	PbI
Youth Service Commiss.	8.8	.02	PbI	(64.7)	(5.09)	PbNI	(100.0)	(10.71)	PbNI	100.0	10.24	PbNI
Human Services	145.0	15.86	PbNI	23.2	.47	PbI	49.6	3.82	PbNI	(16.6)	(2.87)	PbNI
Public Housing	18.0	1.09	PsNI	22.5	.42	PbI	50.9	3.94	PbNI	(15.4)	(2.73)	PbNI
Model Cities	(44.4)	(6.16)	PbNI	(6.7)	(1.42)	PsNI	7.2	(.30)	PbI	(100.0)	12.24	PbNI
Civic Center	250.3	28.10	PbNI	218.2	12.81	PbNI	(5.4)	(1.52)	PsNI	3.9	(.56)	PbI
Municipal Afc	8.6	--		15.8	--		10.3	--		8.9	--	
Gen. Govt. s unit	--	--	±.98	--	--	±1.30	--	--	±1.43	--	--	±1.26

TABLE 34

CITY A: AGENCY-LEVEL DATA

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
General Government	4.9	1.88	PbI	9.02	4.64	PsNI	13.7	.34	PbI	1.5	(.84)	PbI
Police	7.9	3.65	PsNI	6.5	3.06	PbI	11.7	.15	PbI	5.2	(.45)	PbI
Fire	6.7	2.94	PbI	7.7	3.81	PbI	11.9	.17	PbI	2.1	(.78)	PbI
Public Safety (Other)	5.6	2.29	PbI	4.0	1.50	PbI	4.1	(.60)	PsNI	1.8	(.81)	PbI
Health	0.3	(.82)	PbI	7.6	3.75	PbI	8.8	(.14)	PbI	3.0	(.68)	PbI
Veterans	1.9	.12	PbI	2.8	.75	PbI	2.0	(.80)	PsNI	28.1	1.99	PsNI
Welfare	(37.1)	(22.82)	PbNI	(93.8)	(59.62)	PbNI	(30.0)	(3.94)	PbNI	(100.0)	(11.64)	PbNI
Public Works	4.4	1.59	PbI	7.3	3.56	PbI	6.4	(.37)	PbI	2.1	(.78)	PbI
Education	7.8	3.59	PsNI	10.2	5.38	PsNI	17.8	.74	PsNI	5.7	(.39)	PbI
Recreation	5.7	2.35	PbI	0.04	(.97)	PbI	10.6	.04	PbI	5.7	(.39)	PbI
Miscellaneous	12.9	6.59	PbNI	16.6	9.38	PbNI	(1.6)	(1.16)	PbNI	30.3	2.22	PsNI
Municipal Afc	1.7	--	--	1.6	--	--	10.2	--	--	9.4	--	--
Agency-level s unit	--	--	±3.09	--	--	±4.39	--	--	±.57	--	--	±1.12

TABLE 34--Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
General Government	10.6	.23	PbI	21.0	.33	PbI	10.8	.05	PbI	7.7	(.13)	PbI
Police	10.2	.19	PbI	16.8	.06	PbI	16.4	.59	PbI	5.9	(.34)	PbI
Fire	2.6	(.70)	PsNI	16.0	.01	PbI	11.9	.16	PbI	7.4	(.17)	PbI
Public Safety (Other)	18.0	1.09	PsNI	11.2	(.27)	PbI	14.4	.40	PbI	8.6	(.03)	PbI
Health	11.3	.31	PbI	11.4	(.28)	PbI	22.4	1.17	PsNI	2.2	(.75)	PbI
Welfare	10.3	.20	PbI	25.3	.60	PsNI	(2.3)	(1.22)	PsNI	(30.5)	(4.43)	PbNI
Public Works	5.0	(.42)	PbI	8.0	(.49)	PsNI	18.2	.77	PsNI	(8.1)	(1.91)	PbNI
Education	13.7	.59	PsNI	23.2	.47	PsNI	7.1	(.31)	PbI	15.8	.78	PbI
Recreation	3.8	(.56)	PbI	17.3	.09	PbI	3.4	(.67)	PbI	1.9	(.78)	PbI
Miscellaneous	1.5	(.83)	PsNI	3.3	(.79)	PsNI	10.2	(.01)	PbI	10.5	.18	PbI
Municipal Afc	8.6	--	--	15.8	--	--	10.3	--	--	8.9	--	--
Agency-level s unit	--	--	±.59	--	--	±.41	--	--	±.67	--	--	±.79

TABLE 35

CITY B: PUBLIC WORKS PROGRAMS

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
Administration	1.7	(.60)	PbI	(3.5)	(1.56)	PbI	17.8	.53	PbI	9.5	.20	PbI
Streets	3.2	(.26)	PbI	13.7	1.17	PbI	5.5	(.53)	PbI	(30.6)	(4.87)	PsNI
Sewers	(5.7)	(2.32)	PbI	(2.2)	(1.35)	PbI	19.0	.64	PbI	7.0	(.11)	PbI
Water	6.6	.53	PbI	16.5	1.62	PbI	25.5	1.20	PbI	2.8	(.65)	PbI
Sanitation	107.1	23.91	PbNI	35.4	4.62	PsNI	(45.9)	(4.96)	PsNI	66.2	7.38	P NI
Traffic Engineering	35.0	7.14	PsNI	10.8	.71	PbI	56.3	3.85	PsNI	1290.0	15.33	PbNI
Public Buildings	36.8	7.56	PsNI	41.3	5.56	PsNI	(43.6)	(4.76)	PsNI	(100.0)	(13.66)	PbNI
Lighting	--	--	--	--	--	--	--	--	--	--	--	--
Municipal Afc	4.3	--	--	6.3	--	--	11.6	--	--	7.9	--	--
Public Works s unit	--	--	±4.36	--	--	±2.95	--	--	±3.04	--	--	±3.97

TABLE 35--Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
Administration	(11.0)	(2.51)	PsNI	19.8	1.20	PbI	(23.0)	(6.48)	PsNI	14.2	.60	PbI
Streets	4.0	(.45)	PbI	(7.4)	(1.82)	PbI	12.1	1.88	PbI	(9.0)	(2.01)	PbNI
Sewers	1.3	(.82)	PbI	(15.8)	(2.76)	PsNI	(8.5)	(3.02)	PbI	7.9	(.11)	PbI
Water	(44.2)	(7.05)	PbNI	8.8	(.02)	PbI	(7.0)	(2.67)	PbI	16.1	.81	PbI
Sanitation	(19.2)	(3.63)	PsNI	(39.3)	(5.38)	PsNI	(36.0)	(9.57)	PbNI	1729.3	193.3	PbNI
Traffic Engineering	(13.4)	(2.84)	PsNI	35.6	2.96	PsNI	23.6	4.62	PsNI	3.1	(.65)	PbI
Public Buildings	--	--	--	--	--	--	--	--	--	--	--	--
Lighting	100.0	12.70	PbNI	21.7	1.42	PbI	9.4	1.24	PbI	6.5	(.27)	PbI
Municipal Afc	7.3	--	--	8.98	--	--	4.2	--	--	8.9	--	--
Public Works s unit	--	--	±2.38	--	--	±2.73	--	--	±3.76	--	--	±.96

TABLE 36

CITY B: GENERAL GOVERNMENT PROGRAMS

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
City Manager	145.1	32.74	PbNI	(52.7)	(9.37)	PbNI	107.5	8.27	PbNI	7.1	(.10)	PbI
City Council	7.8	.81	PbI	7.5	.19	PbI	10.1	(.31)	PbI	(9.1)	(2.15)	PsNI
Mayor's Office	29.7	5.91	PbNI	(14.1)	1.24	PbI	24.3	1.09	PbI	(5.4)	(1.68)	PsNI
Auditor	18.7	3.35	PsNI	39.9	5.34	PsNI	12.1	.04	PbI	(8.4)	(2.06)	PsNI
Treasurer	7.8	.81	PbI	.65	(.90)	PbI	4.2	(.64)	PbI	14.1	.78	PbI
Assessor	5.8	.35	PbI	16.0	1.54	PbI	8.1	(.30)	PbI	4.6	(.42)	PbI
License Commission	4.0	(.07)	PbI	11.5	.83	PbI	2.6	(.78)	PbI	.8	(.90)	PbI
Law Office	12.0	1.79	PbI	171.0	26.14	PbNI	(62.7)	(6.41)	PsNI	6.6	(.16)	PbI
City Clerk	3.5	(.19)	PbI	.3	(.95)	PbI	15.4	.33	PbI	(.8)	(1.10)	PbI
Messenger	2.3	(.47)	PbI	.5	(.92)	PbI	3.4	.71	PbI	11.2	.42	PbI
Model Cities	--	--	--	--	--	--	--	--	--	100.0	11.66	PbNI
Voter Registrar	9.4	1.19	PbI	.7	(.89)	PbI	5.7	(.51)	PbI	19.9	1.52	PsNI
Human Rights	--	--	--	--	--	--	--	--	--	--	--	--
Human Services	--	--	--	--	--	--	--	--	--	--	--	--
Purchasing	7.2	.67	PbI	12.4	.97	PbI	5.4	(.53)	PbI	3.2	(.59)	PbI
Social Services Corp.	--	--	--	--	--	--	--	--	--	--	--	--
Planning	1.9	(.56)	PbI	187.5	28.76	PbNI	(62.4)	(6.38)	PsNI	7.3	(.08)	PbI
Licensing Board and Appeals	5.1	.19	PbI	.6	(.90)	PbI	8.5	(.27)	PbI	(.7)	(1.09)	PbI
Custodian of Tax Titles	5.0	.16	PbI	8.8	.40	PbI	9.8	(.16)	PbI	4.6	(.42)	PbI
Data Processing	--	--	--	--	--	--	--	--	--	--	--	--
Personnel	23.7	4.51	PbNI	490.1	76.79	PbNI	(78.3)	(7.75)	PbNI	500.9	62.41	PbNI
Municipal Afc	4.3	--	--	6.3	--	--	11.6	--	--	7.9	--	--
Gen. Govt. s unit	--	--	±2.22	--	--	±3.12	--	--	±3.66	--	--	±1.12

TABLE 36--Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
City Manager	4.8	(.34)	PbI	60.8	5.77	PbNI	4.4	.04	PbI	13.3	.49	PbI
City Council	2.6	(.64)	PbI	41.9	3.67	PsNI	.1	(.98)	PbI	.5	(.94)	PbI
Mayor's Office	11.1	.52	PbI	9.4	.05	PbI	(49.9)	(12.88)	PbNI	69.4	6.80	PbNI
Auditor	7.3	.00	PbI	21.2	1.36	PbI	28.4	5.76	PbNI	(58.6)	(7.50)	PbNI
Treasurer	6.6	(.10)	PbI	17.2	.92	PbI	13.2	2.14	PbI	18.8	1.11	PbI
Assessor	18.5	1.53	PsNI	33.7	2.75	PbI	20.6	3.90	PsNI	28.8	2.24	PsNI
License Commission	8.0	.10	PbI	8.0	(.11)	PbI	5.4	.29	PbI	7.9	(.11)	PbI
Law Office	2.3	(.68)	PbI	44.3	3.93	PsNI	.2	(.95)	PbI	7.7	(.13)	PbI
City Clerk	31.9	3.37	PbNI	5.1	(.43)	PbI	17.1	3.07	PsNI	18.8	1.11	PbI
Messenger	11.3	.55	PbI	17.1	.90	PbI	5.9	.40	PbI	5.6	(.37)	PbI
Model Cities	164.9	21.59	PbNI	82.1	8.14	PbNI	(20.9)	(5.98)	PbNI	(26.4)	(3.97)	PbNI
Voter Registration	11.8	.62	PbI	11.8	.31	PbI	(2.4)	(1.57)	PbI	14.2	.60	PbI
Human Rights	--	--	--	--	--	--	100.0	22.81	PbNI	8.7	(.02)	PbI
Human Services	--	--	--	--	--	--	100.0	22.81	PbNI	87.2	8.80	PbNI
Purchasing	10.7	.47	PbI	13.5	.50	PbI	3.4	(.91)	PbI	15.1	.70	PbI
Social Services Corp.	--	--	--	--	--	--	100.0	22.81	PbNI	(100.0)	(12.24)	PbNI
Planning	10.4	.42	PbI	(37.1)	(5.13)	PsNI	57.7	12.74	PbNI	(22.4)	(3.52)	PbNI
Licensing Board and Appeals	6.4	(.12)	PbI	13.2	.47	PbI	8.6	1.05	PbI	18.5	1.08	PbI
Custodian of Tax Titles	7.9	.09	PbI	58.2	5.48	PsNI	7.0	.67	PbI	3.7	(.58)	PbI
Data Processing	--	--	--	--	--	--	--	--	--	100.0	10.24	PbNI
Personnel	2.9	(.59)	PbI	10.5	.17	PbI	16.6	2.95	PsNI	9.1	.02	PbI
Municipal Afc	7.3	--	--	8.98	--	--	4.2	--	--	8.9	--	--
Gen. Govt. s unit	--	--	±1.01	--	--	±2.78	--	--	±2.74	--	--	±1.52

TABLE 37

CITY B: AGENCY-LEVEL DATA

	1967-68			1968-69			1969-70			1970-71		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
General Government	25.7	4.98	PbNI	36.2	4.75	PsNI	(18.8)	(2.62)	PbNI	14.7	.86	PbI
Police	9.9	1.31	PsNI	7.2	.14	PbI	19.0	.64	PbI	5.1	(.35)	PbI
Fire	7.2	.67	PbI	7.4	.17	PbI	7.8	(.33)	PbI	7.1	(.10)	PbI
Public Safety (Other)	(6.9)	(2.60)	PbNI	(.1)	(1.02)	PbI	14.0	.21	PbI	12.8	.62	PbI
Health	8.6	1.00	PbI	6.5	.03	PbI	12.0	.10	PbI	7.9	.00	PbI
Welfare	(23.7)	(6.51)	PbNI	(95.1)	(16.10)	PbNI	(100.0)	(9.62)	PbNI	--	--	--
Veterans	5.3	.23	PbI	43.4	5.89	PbNI	2.8	(.76)	PbI	17.9	1.27	PsNI
Public Works	8.0	.86	PbI	3.1	(.51)	PbI	14.6	.26	PbI	5.8	(.27)	PbI
Education	11.1	1.58	PsNI	15.0	1.38	PbI	13.3	.15	PbI	12.0	.52	PbI
Recreation	5.3	.23	PbI	16.3	1.59	PbI	4.9	(.57)	PbI	14.7	.86	PbI
Public Services	8.1	.88	PbI	55.1	7.75	PbNI	(19.7)	(2.70)	PbNI	17.4	1.20	PsNI
Miscellaneous	1.2	1.16	PbI	23.6	2.75	PsNI	14.9	.29	PbI	(10.9)	(2.38)	PbNI
Municipal Afc	4.3	--	--	6.3	--	--	11.6	--	--	7.9	--	--
Agency-level s unit	--	--	±1.24	--	--	±2.66	--	--	±1.20	--	--	±1.00

TABLE 37--Continued

	1971-72			1972-73			1973-75			1975-76		
	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.	Afc	$AdjR_S$	Class.
General Government	15.5	1.12	PbI	31.3	2.52	PbNI	8.04	.91	PbI	12.3	.38	PbI
Police	13.5	.85	PbI	(2.5)	(1.28)	PbI	6.9	.64	PbI	16.8	.89	PbI
Fire	15.8	1.16	PbI	5.6	(.37)	PbI	4.3	.02	PbI	(2.5)	(1.28)	PbI
Public Safety (Other)	26.6	2.64	PsNI	70.8	6.96	PbNI	(34.8)	(9.29)	PbNI	213.6	23.00	PbNI
Health	9.6	.32	PbI	4.1	(.54)	PbI	16.8	3.00	PsNI	7.5	(.16)	PbI
Welfare	--	--	--	--	--	--	--	--	--	--	--	--
Veterans	(2.8)	(1.38)	PbI	11.8	.33	PbI	(13.4)	(4.19)	PsNI	(30.2)	(4.39)	PbNI
Public Works	(3.3)	(1.45)	PbI	13.8	.55	PbI	(11.8)	(3.81)	PsNI	13.9	.56	PbI
Education	9.0	.23	PbI	9.8	.10	PbI	7.3	.74	PbI	8.6	(.03)	PbI
Recreation	(6.9)	(1.95)	PsNI	13.0	.46	PbI	37.7	7.98	PbI	(3.9)	(1.44)	PbI
Public Services	(20.8)	(3.85)	PbI	73.4	7.26	PbNI	(29.7)	(8.07)	PbNI	32.7	2.67	PsNI
Miscellaneous	7.2	(.01)	PbI	7.6	(.15)	PbI	(2.6)	(1.62)	PbI	11.9	.34	PbI
Municipal Afc	7.3	--		8.98	--		4.2	--		8.9	--	
Agency-level s unit	--	--	±1.73	--	--	±1.00	--	--	±2.38	--	--	±1.78

APPENDIX B

This appendix includes the distribution charts of the adj. R_S data, organized by year, by organizational category (i.e., public works programs, general government programs, agency-level organizations, and combined categories), and by city. The X axis measures the adj. R_S values in .5 adj. R_S units. The Y axis is the frequency of cases per .5 adj. R_S increment.

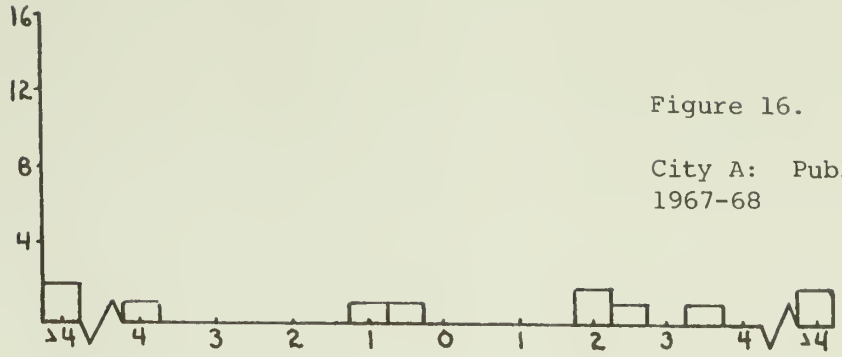

Figure 16.

City A: Public Works
1967-68

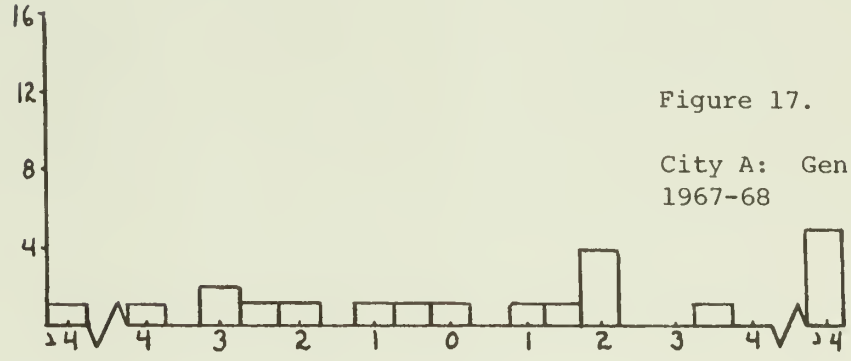

Figure 17.

City A: Gen'l Govt
1967-68

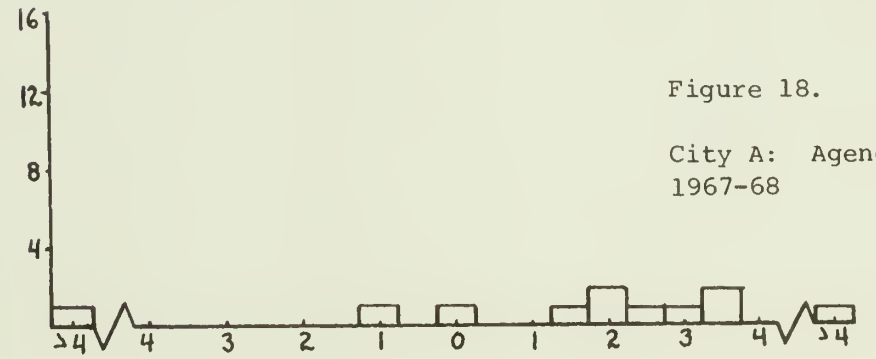

Figure 18.

City A: Agencies
1967-68

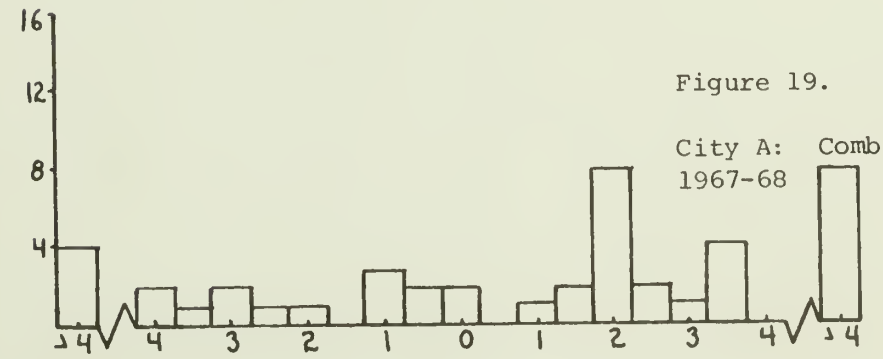

Figure 19.

City A: Combined
1967-68

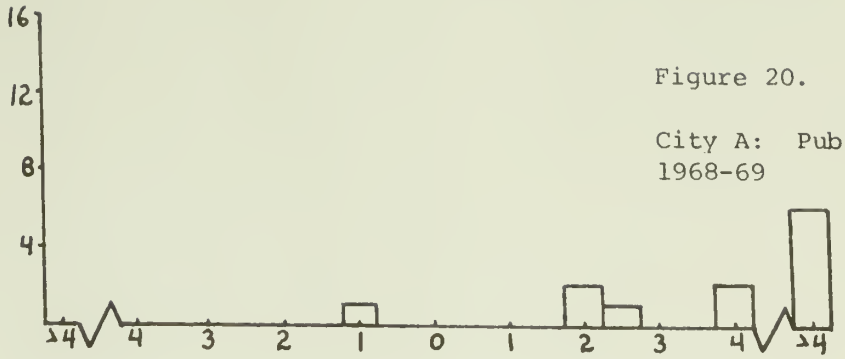

Figure 20.

City A: Public Works
1968-69

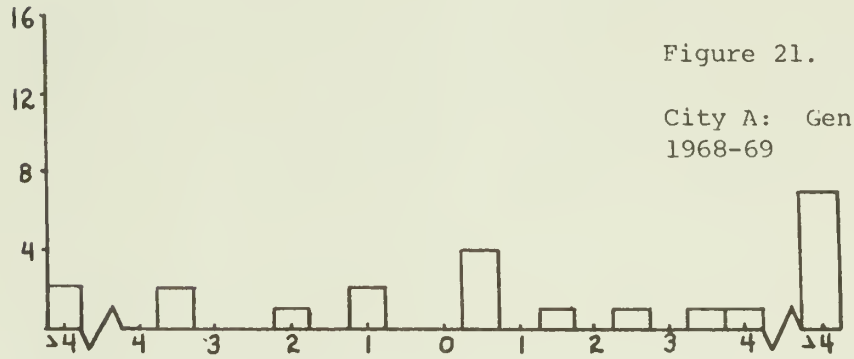

Figure 21.

City A: Gen'l Govt
1968-69

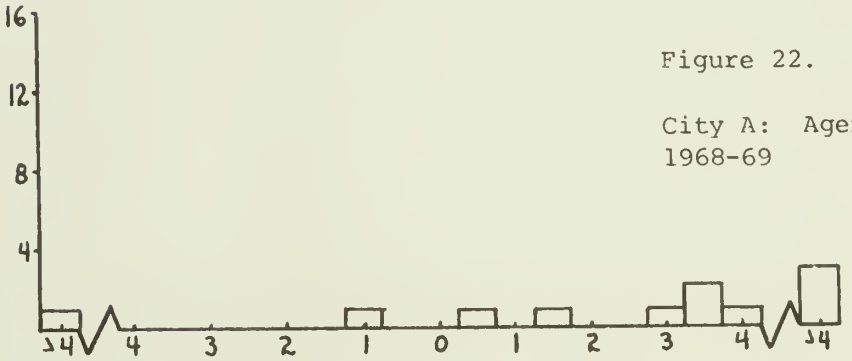

Figure 22.

City A: Agencies
1968-69

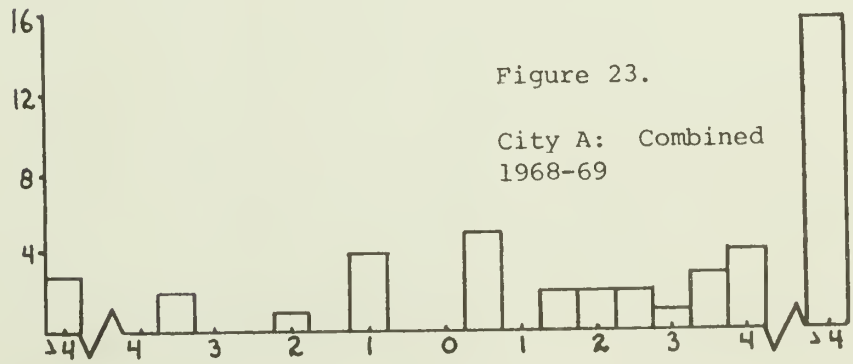

Figure 23.

City A: Combined
1968-69

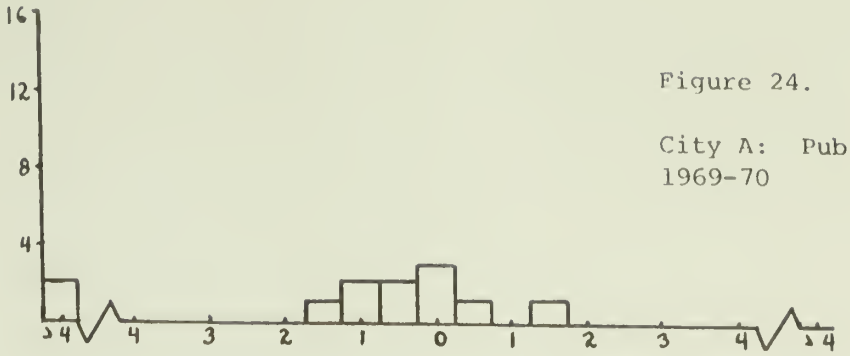

Figure 24.

City A: Public Works
1969-70

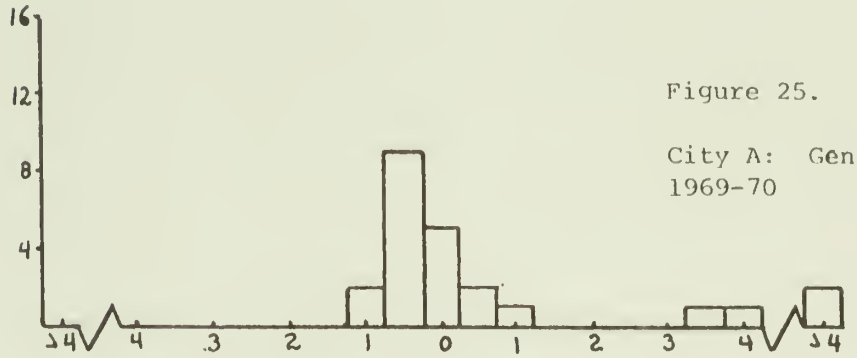

Figure 25.

City A: Gen'l Govt
1969-70

Figure 26.

City A: Agencies
1969-70

Figure 27.

City A: Combined
1969-70

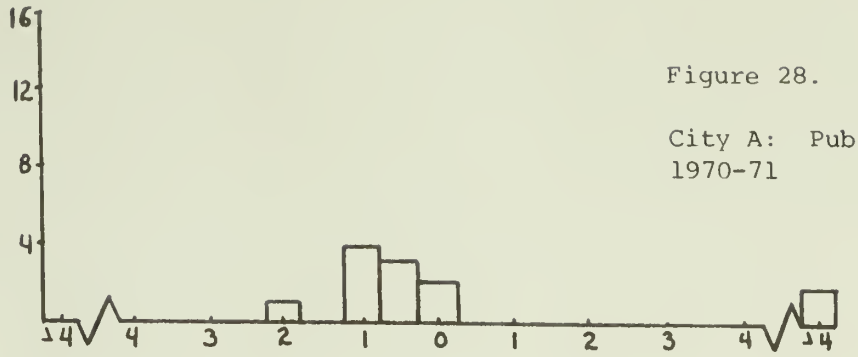

Figure 28.

City A: Public Works
1970-71

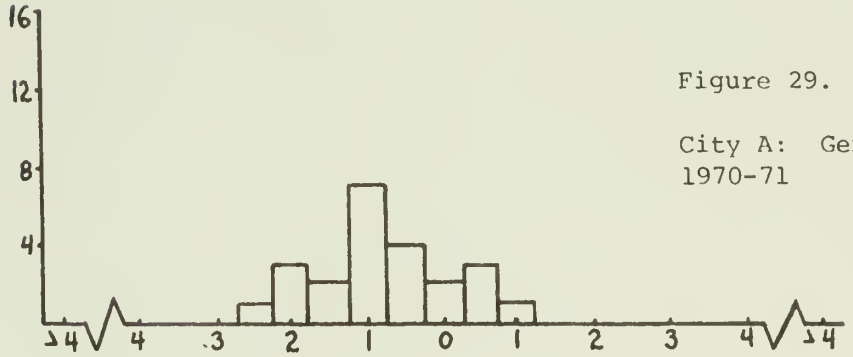

Figure 29.

City A: Gen'l Govt
1970-71

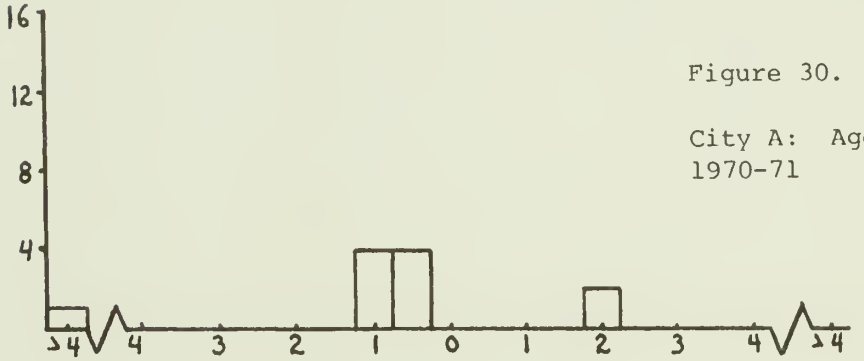

Figure 30.

City A: Agencies
1970-71

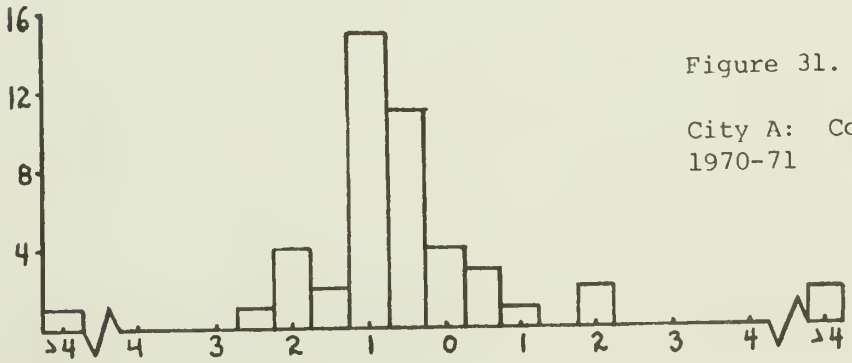

Figure 31.

City A: Combined
1970-71

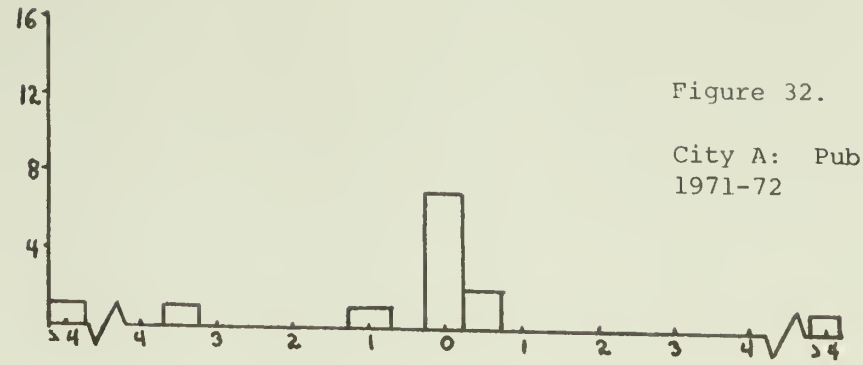

Figure 32.

City A: Public Works
1971-72

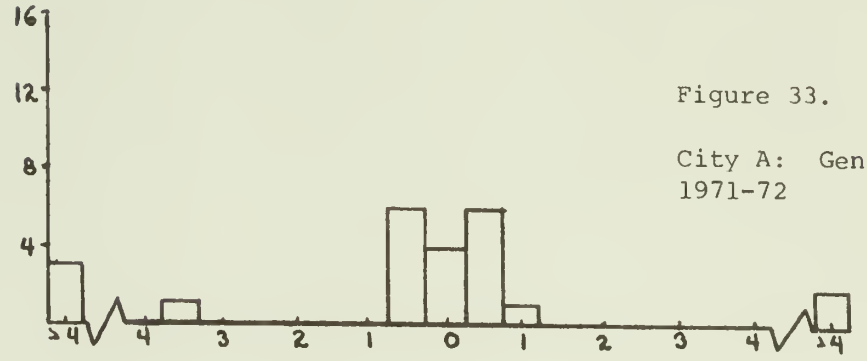

Figure 33.

City A: Gen'l Govt
1971-72

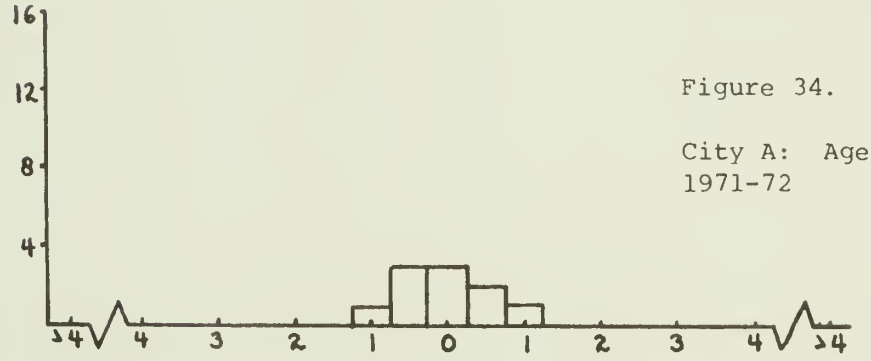

Figure 34.

City A: Agencies
1971-72

Figure 35.

City A: Combined
1971-72

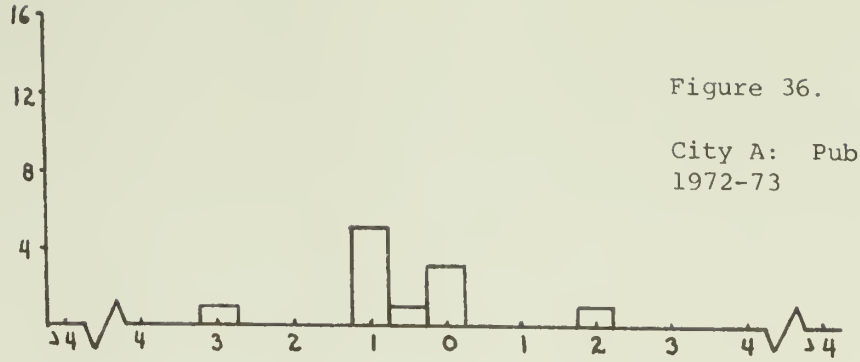

Figure 36.

City A: Public Works
1972-73

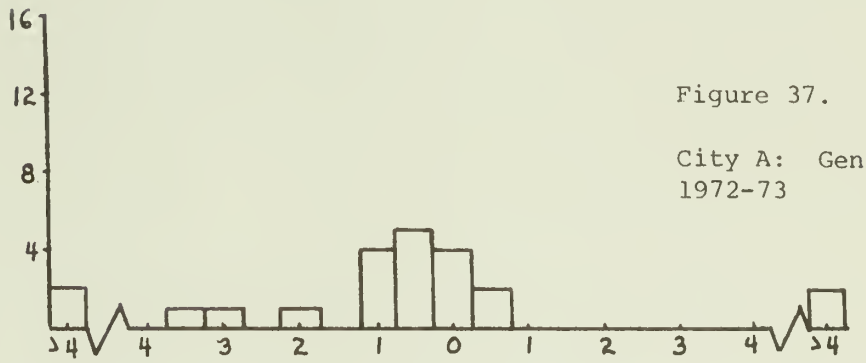

Figure 37.

City A: Gen'l Govt
1972-73

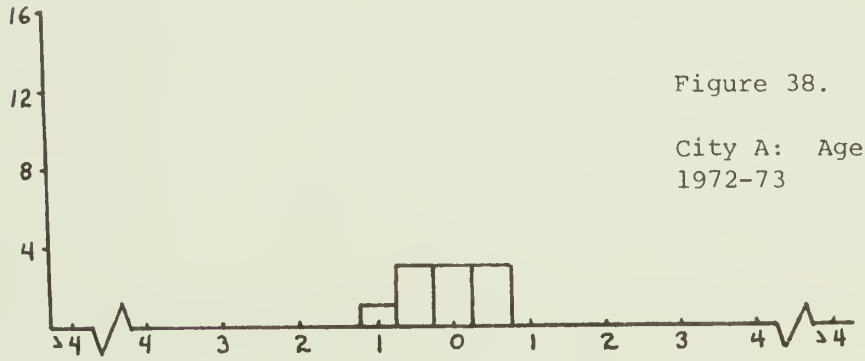

Figure 38.

City A: Agencies
1972-73

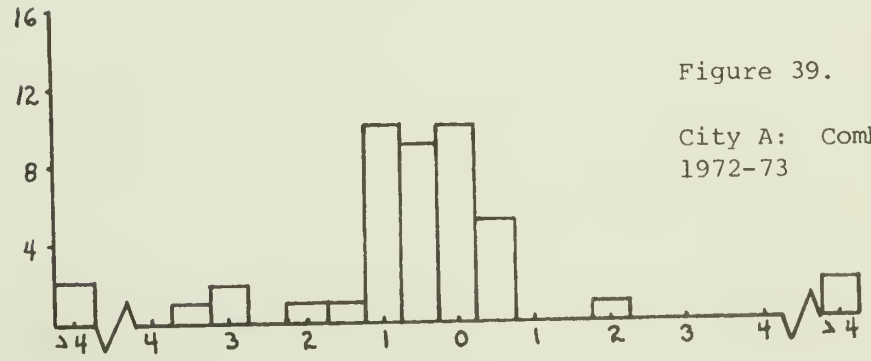

Figure 39.

City A: Combined
1972-73

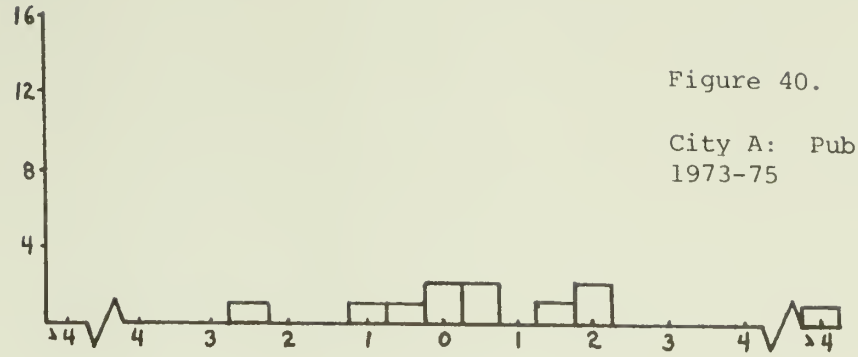

Figure 40.

City A: Public Works
1973-75

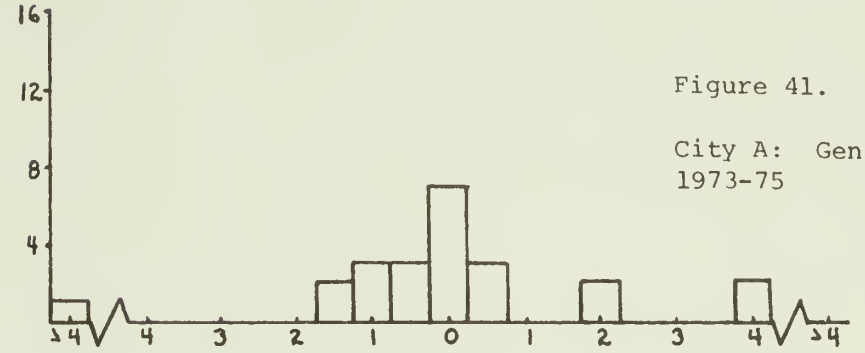

Figure 41.

City A: Gen'l Govt
1973-75

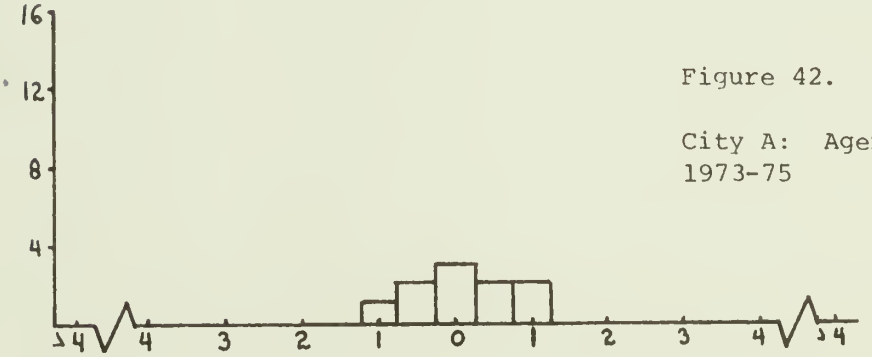

Figure 42.

City A: Agencies
1973-75

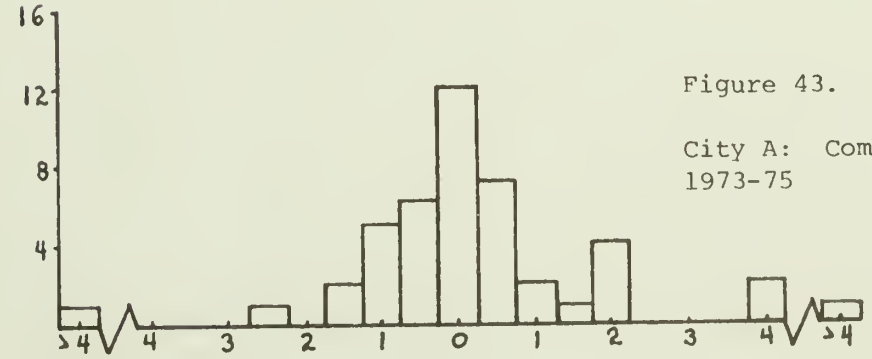

Figure 43.

City A: Combined
1973-75

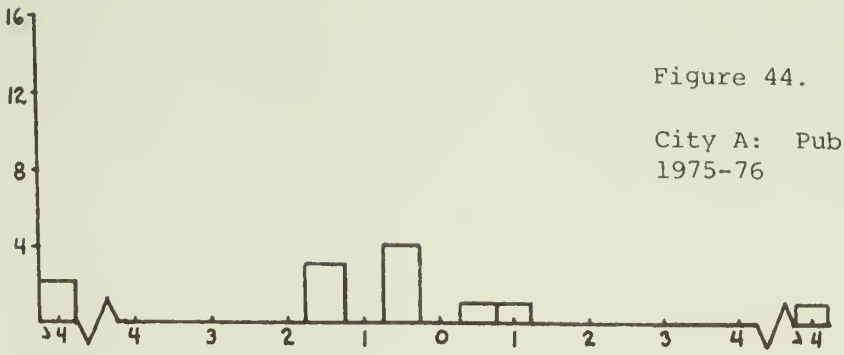

Figure 44.

City A: Public Works
1975-76

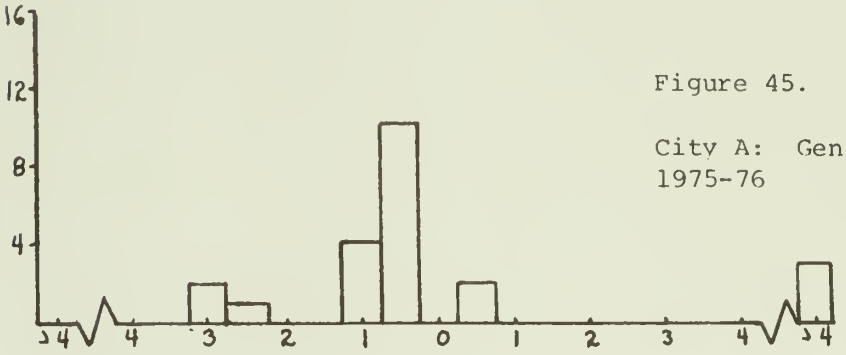

Figure 45.

City A: Gen'l Govt
1975-76

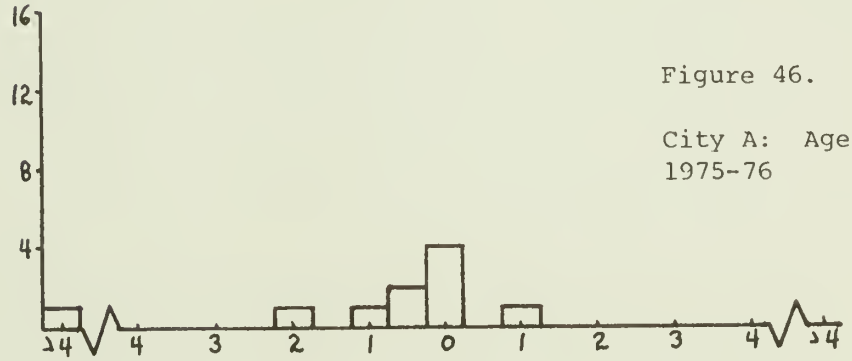

Figure 46.

City A: Agencies
1975-76

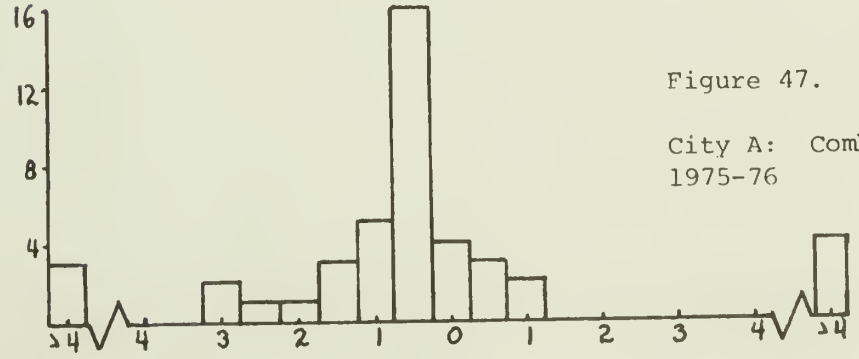

Figure 47.

City A: Combined
1975-76

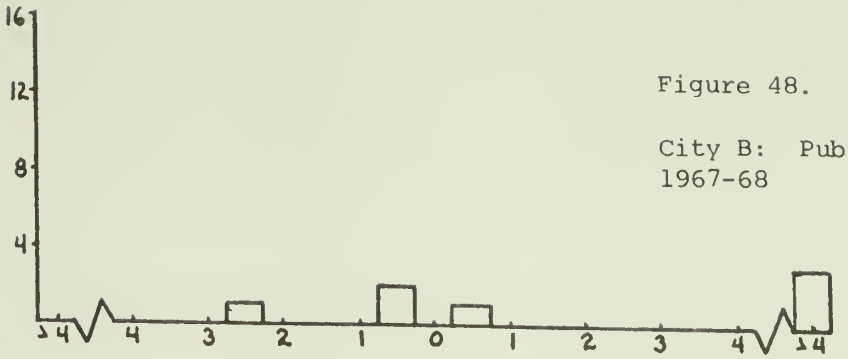

Figure 48.

City B: Public Works
1967-68

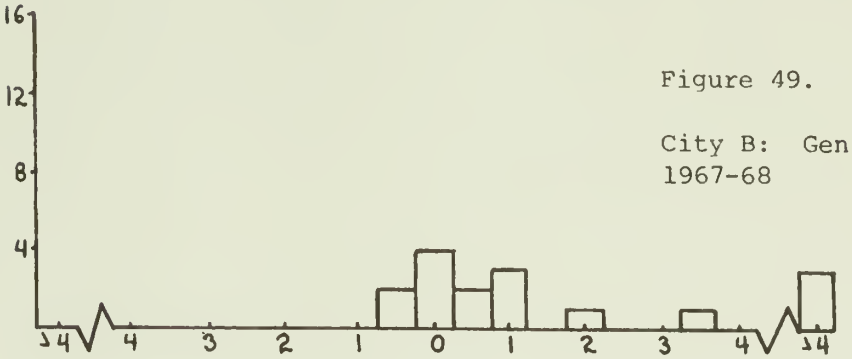

Figure 49.

City B: Gen'l Govt
1967-68

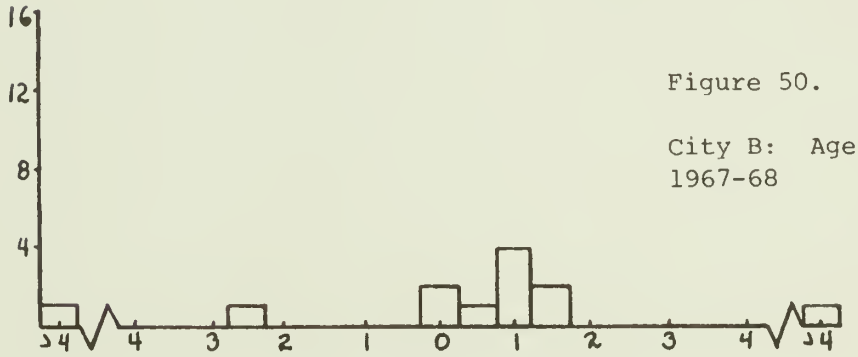

Figure 50.

City B: Agencies
1967-68

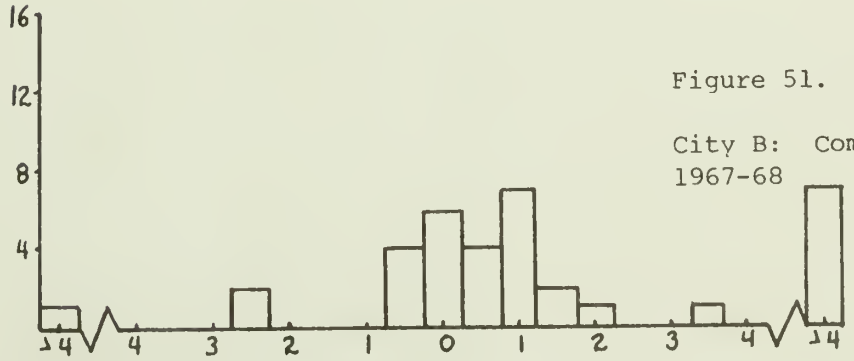

Figure 51.

City B: Combined
1967-68

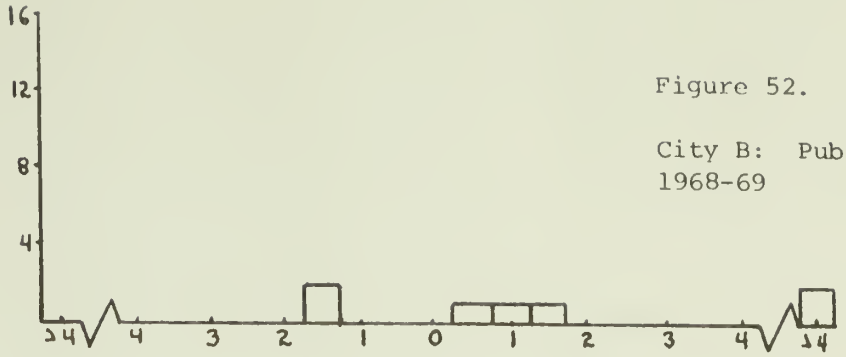

Figure 52.

City B: Public Works
1968-69

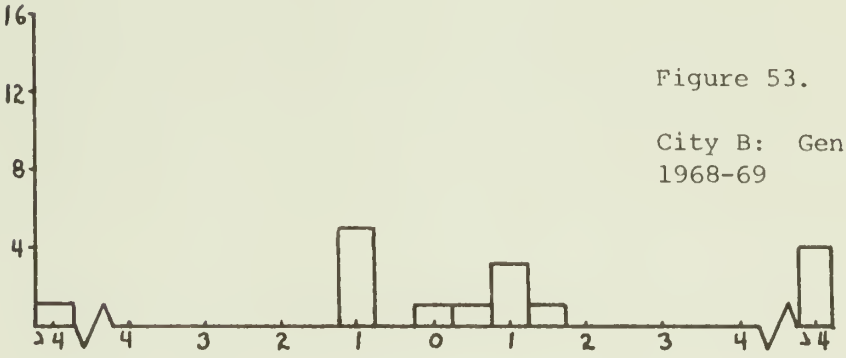

Figure 53.

City B: Gen'l Govt
1968-69

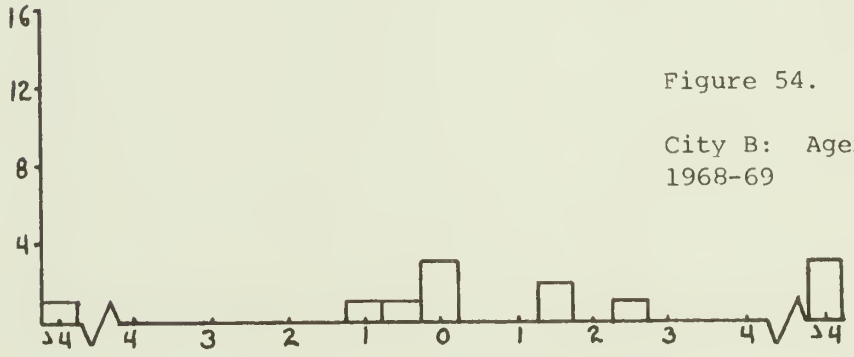

Figure 54.

City B: Agencies
1968-69

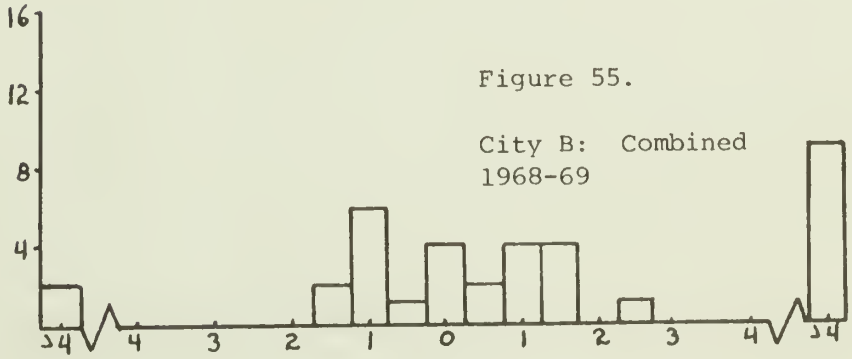

Figure 55.

City B: Combined
1968-69

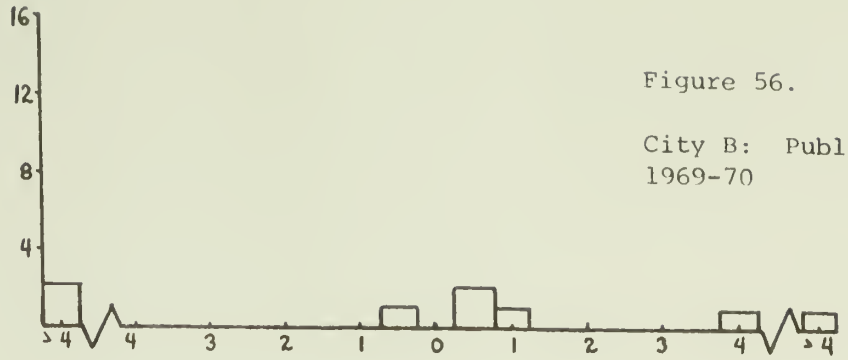

Figure 56.

City B: Public Works
1969-70

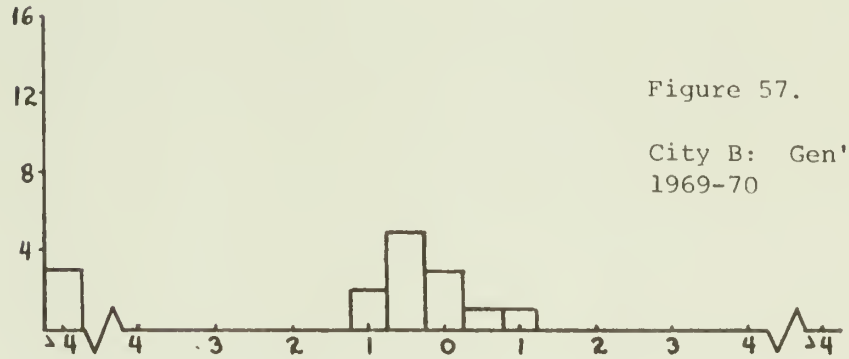

Figure 57.

City B: Gen'l Govt
1969-70

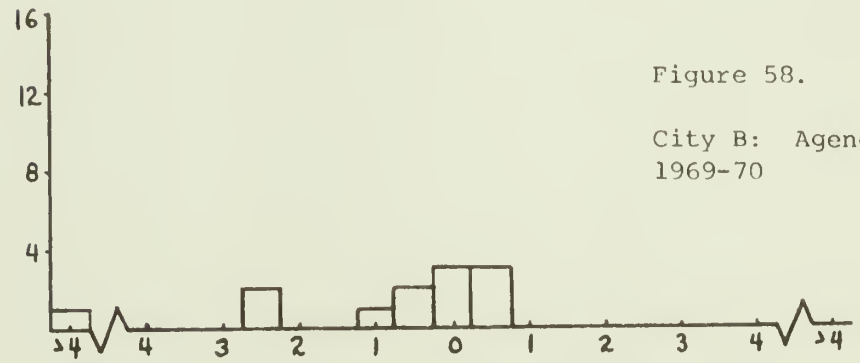

Figure 58.

City B: Agencies
1969-70

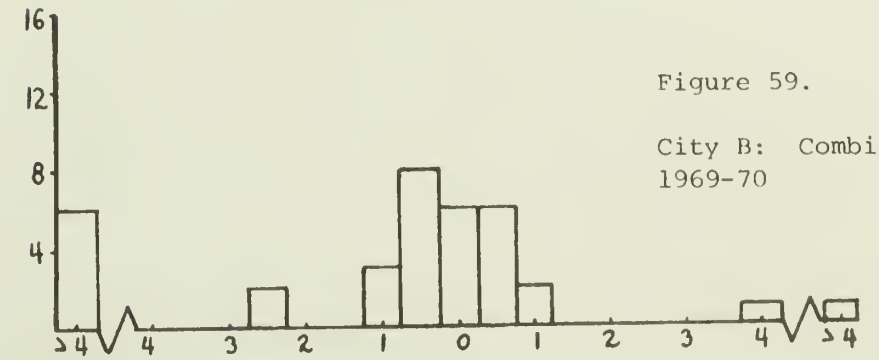

Figure 59.

City B: Combined
1969-70

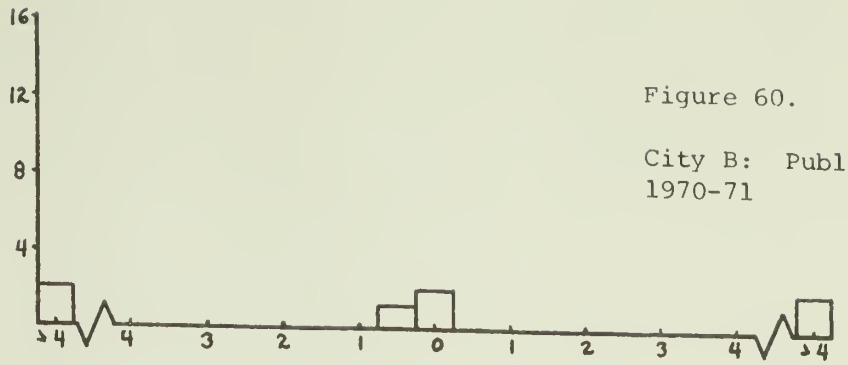

Figure 60.

City B: Public Works
1970-71

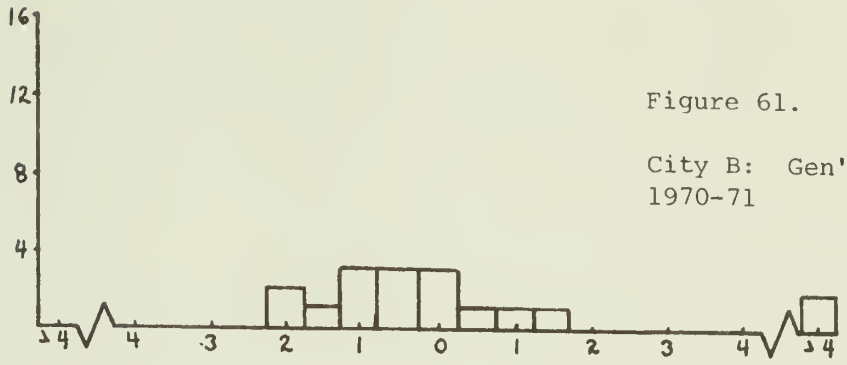

Figure 61.

City B: Gen'l Govt
1970-71

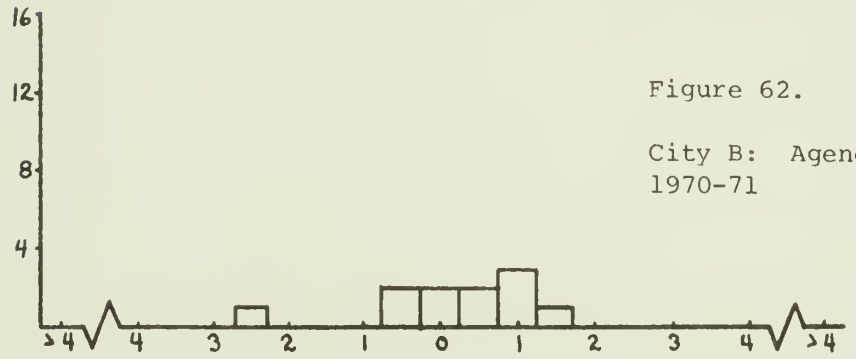

Figure 62.

City B: Agencies
1970-71

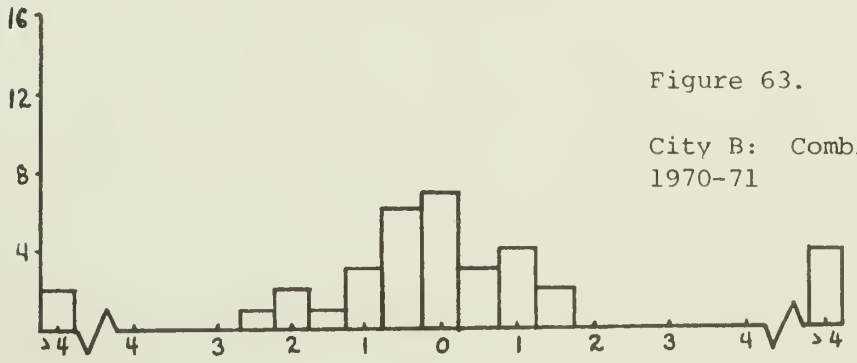

Figure 63.

City B: Combined
1970-71

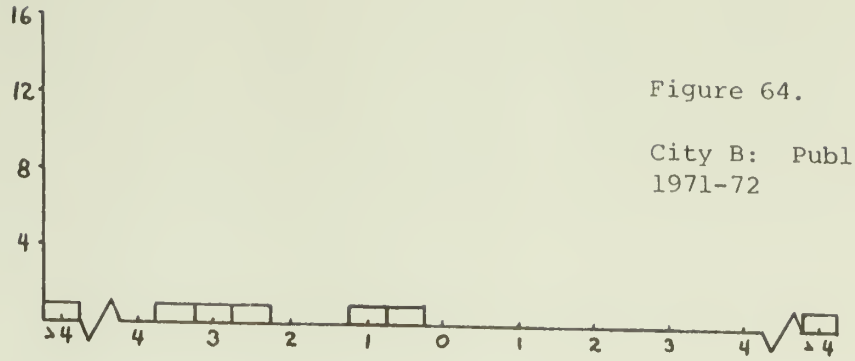

Figure 64.

City B: Public Works
1971-72

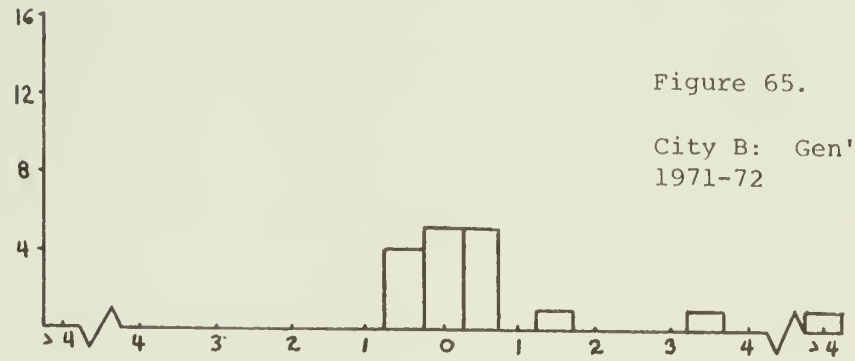

Figure 65.

City B: Gen'l Govt
1971-72

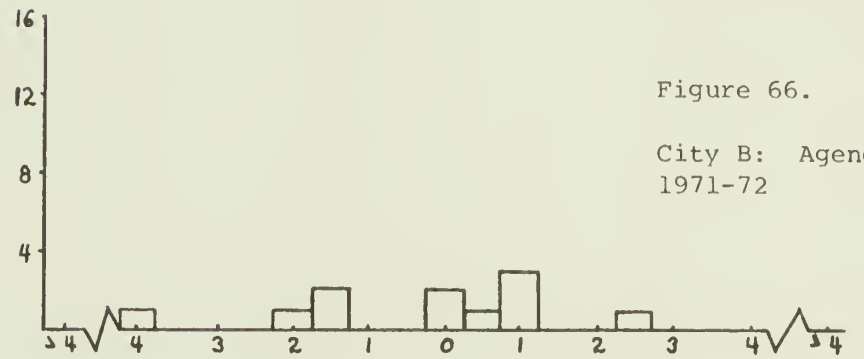

Figure 66.

City B: Agencies
1971-72

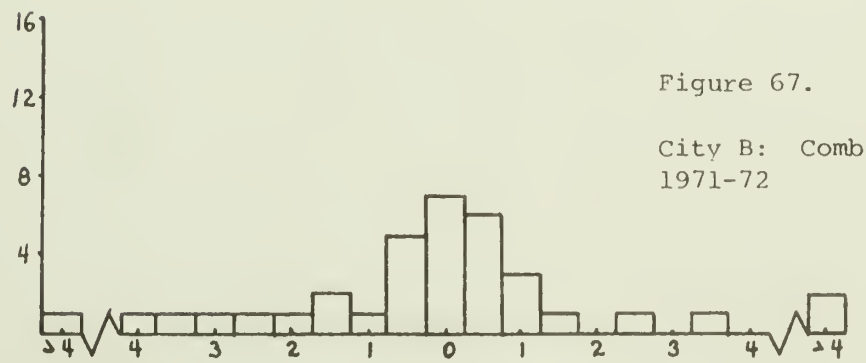

Figure 67.

City B: Combined
1971-72

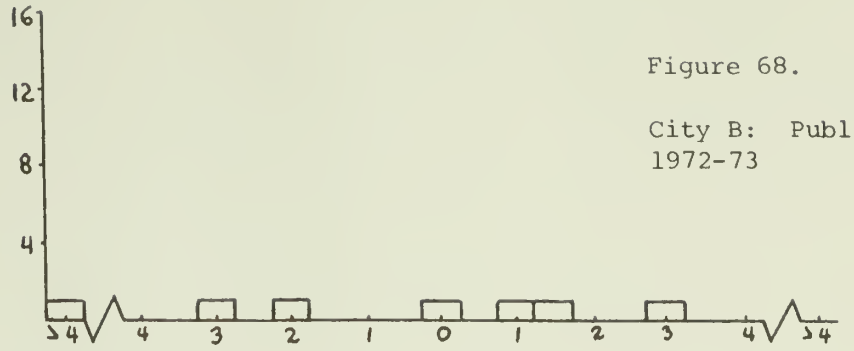

Figure 68.

City B: Public Works
1972-73

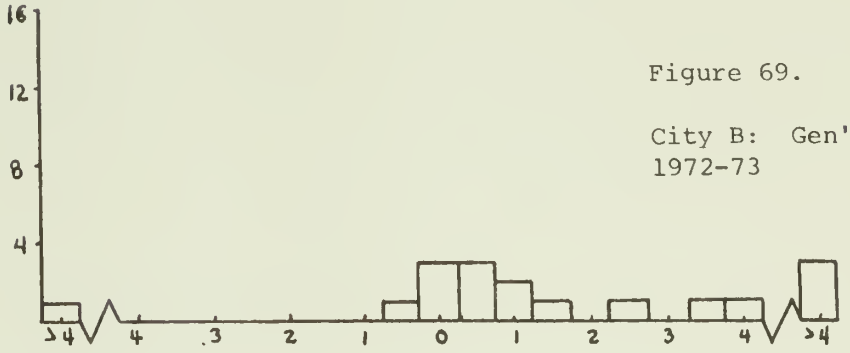

Figure 69.

City B: Gen'l Govt
1972-73

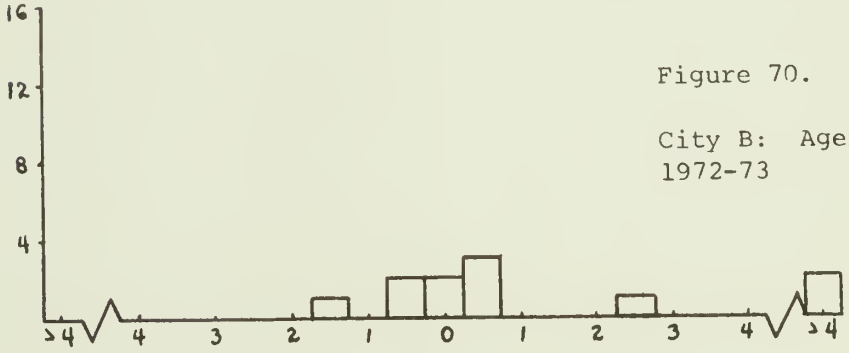

Figure 70.

City B: Agencies
1972-73

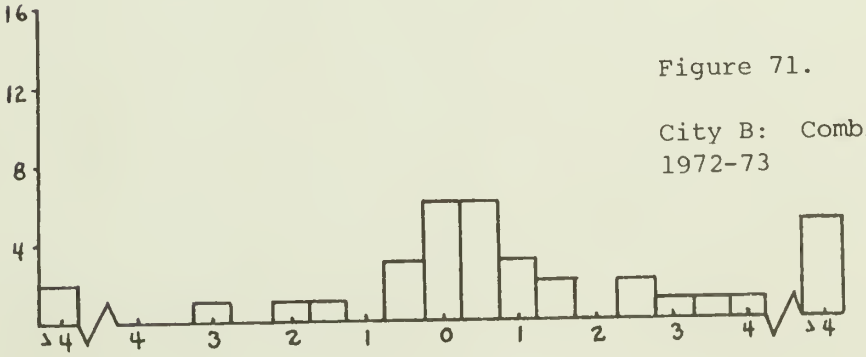

Figure 71.

City B: Combined
1972-73

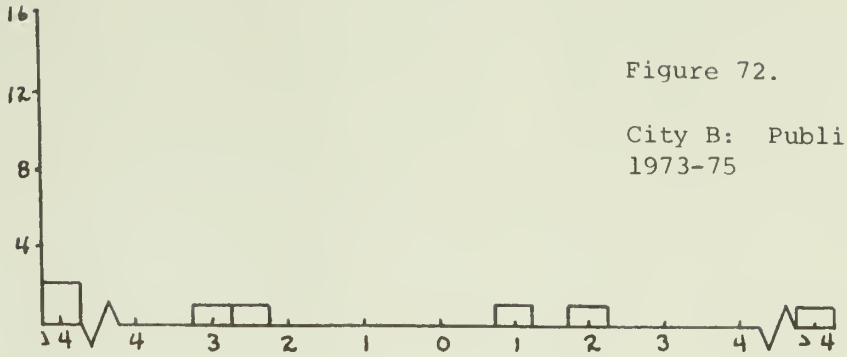

Figure 72.

City B: Public Works
1973-75

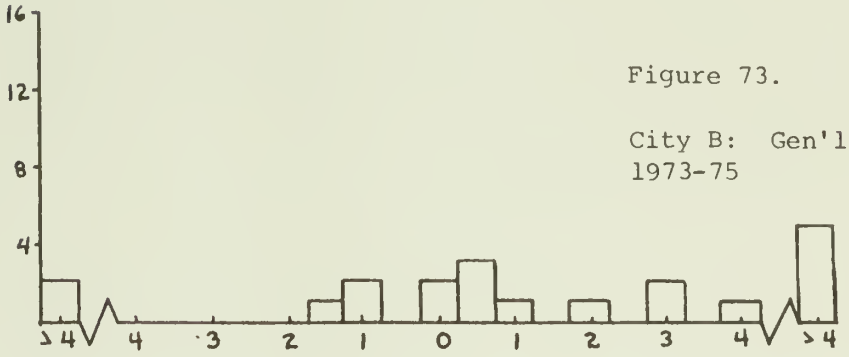

Figure 73.

City B: Gen'l Govt
1973-75

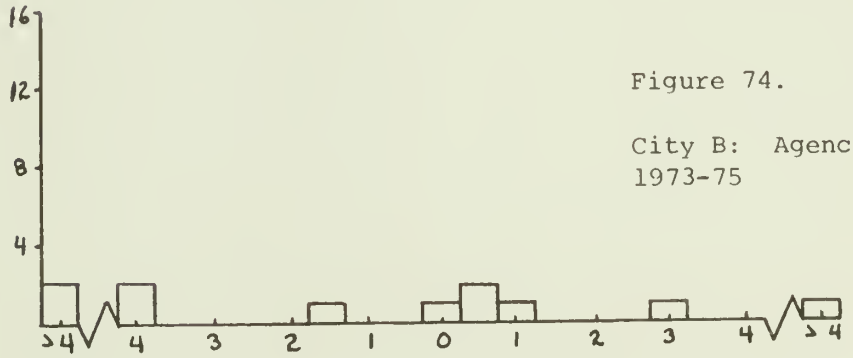

Figure 74.

City B: Agencies
1973-75

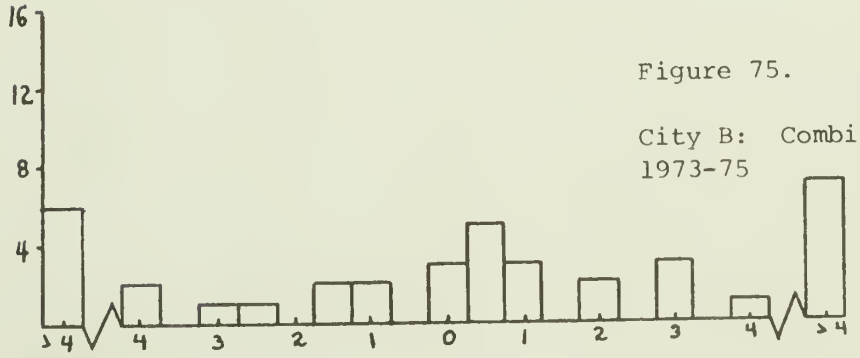

Figure 75.

City B: Combined
1973-75

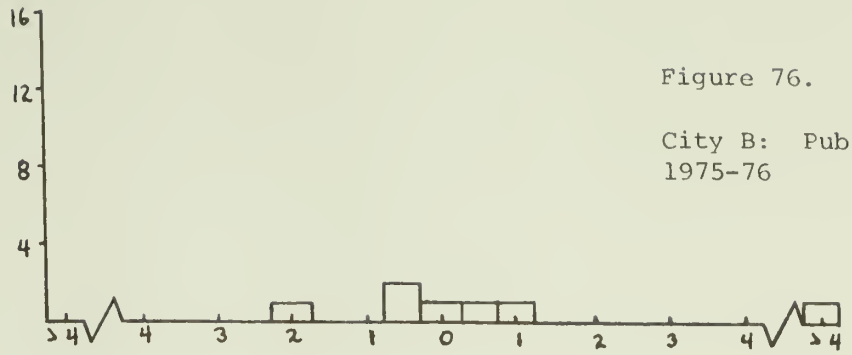

Figure 76.

City B: Public Works
1975-76

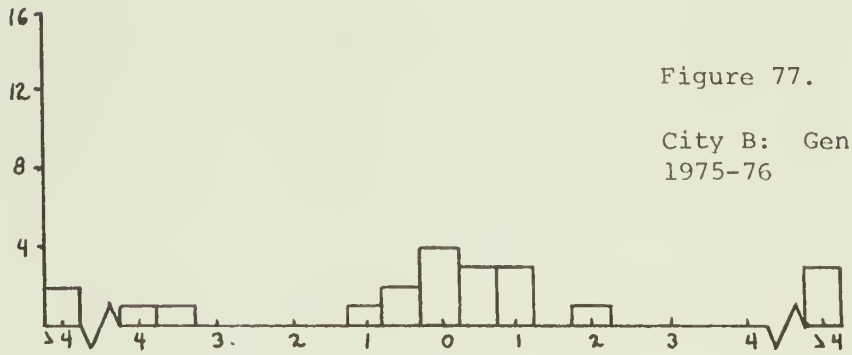

Figure 77.

City B: Gen'l Govt
1975-76

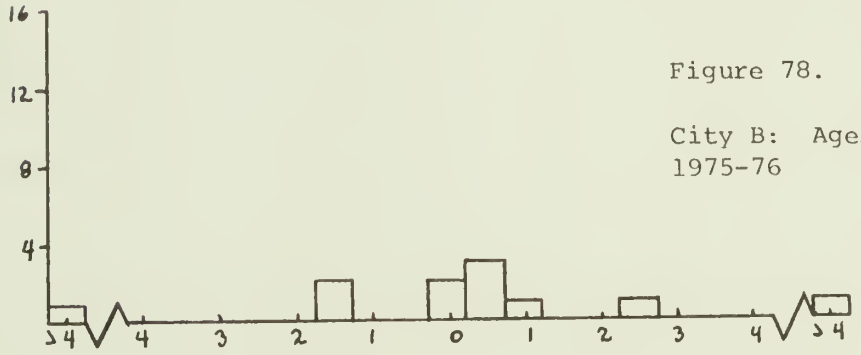

Figure 78.

City B: Agencies
1975-76

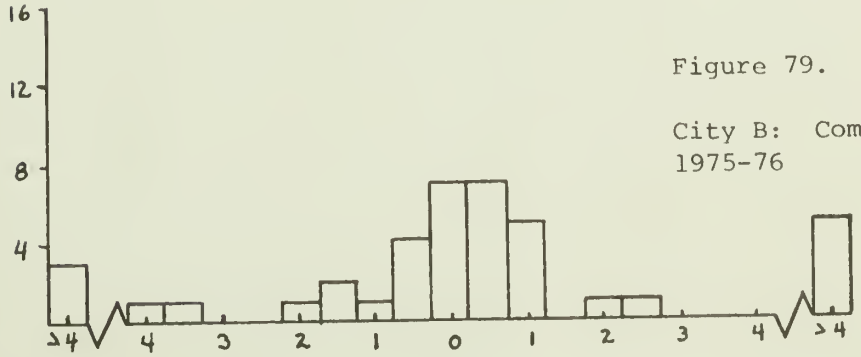

Figure 79.

City B: Combined
1975-76

APPENDIX C

LIST OF PUBLIC OFFICIALS INTERVIEWED, BY TITLE AND CITY

City A

1. Mayor
2. Council President
3. Auditor/Budget Director
4. Treasurer
5. City Clerk
6. Planning Director
7. Personnel Director
8. Director, Law Department
9. Director, Data Processing Department
10. Director, Human Services Department
11. Assessor
12. Director, Civic Center
13. Commissioner, Public Works Department
14. Chief, Fire Department
15. Director, Department of Veterans Affairs
16. Director, Department of Parks and Recreation
17. Director, Traffic Engineering Bureau
18. Director, Bureau of Sewers
19. Director, Streets and Highways Bureau
20. Director, Solid Waste Bureau

City B

1. City Manager
2. Mayor (Council President)
3. Budget Director
4. Treasurer
5. City Clerk
6. Budget Director, Planning Department
7. Personnel Director
8. Budget Officer, Law Department
9. Director, Data Processing Department
10. Director, Human Services Department
11. Director, Human Rights Commission
12. Director, Purchasing Department
13. Custodian of Tax Titles
14. Assistant Commissioner, Public Works Administration
15. Chief, Fire Department
16. Director, Department of Veterans Affairs
17. Director, Department of Parks and Recreation
18. Director, Health Department
19. Chief, Police Department
20. Director, Traffic Engineering Department
21. Director, Sewer Department
22. Director, Department of Streets
23. Director, Sanitation Department

APPENDIX D:

THE QUESTIONNAIRE

OPENING REMARKS

I'm interested in investigating how budgetary decision for various programs and services in the General Fund Budget are made.

Specifically, I want to ask you how funding recommendations and decisions are made at the various levels of the annual appropriations process.

These interviews are being conducted not only in _____ but in another city as well. As is usual in all social science research, your identity will be kept confidential in the event I should decide to cite or quote any of the comments you should make in the course of this interview. This confidentiality will be observed despite the noncontroversial nature of the matters which will be discussed.

BACKGROUND QUESTIONS

1. Title:

2. City:

3. Date:

4. How many years have you served in your current position:

Part II: General Perceptions

Instructions: I will now ask you a series of questions concerning your general views of how budgetary decisions are made. If any of the questions seem unclear or ambiguous, tell me and I will attempt to clarify them.

A. Agency Heads

1. How would you describe the typical manner, if there is one, in which you (or department heads) go about preparing and formulating your annual budget request?

2. (Would you say that) department and program manager generally ask for more funds than they expect to receive?

Agree _____ Disagree _____ Uncertain _____
Comments:

3. What would you say are the basic goals which guide you (or program and agency heads) in the preparation and formulation of budget requests for your (their) area?

B. City Councils

1. How would you describe the typical response, if there is one, of the city council in their handling of the budget recommendations sent to them by the Chief Executive?

2. (Would you say that) the council generally tends to cut or tends to accept in tact the budget recommendations submitted to them by the Chief Executive?

Accept _____ Cut _____ Other _____
Comments:

3. What would you say are the basic goals which guide their handling and evaluation of the budget recommendations?

C. Chief Executive

1. How would you describe the typical responses, if there is one, of the Mayor (City Manager) in his handling and evaluation of budget requests from the city's departments and programs?

2. (Would you agree or disagree that) program and agency heads can tend to expect their requests to be cut by the Chief Executive?

Agree _____ Disagree _____ Uncertain _____
Comments:

3. What would you say are his (the Mayor's, the City Manager's) basic goals which guide his handling and evaluation of the requests?

Part III: Decision Rules

Instructions: I will now read you a number of statements with which I will ask you to agree or disagree. The range of answers which may be given are on the card I am giving to you. They are agree, disagree, uncertain, other (please specify). If you don't wish to answer a question, you may decline to do so.

A. The Maintenance Rule (A)

The city government is as concerned with determining the need for and establishing new services as with keeping existing services operating at acceptable levels.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

B. The Safe Base Rule

In most cases, a department or program head can assume that their current year's funding level will be continued with little question or challenge from one year to the next.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

C. The Increase Focus Role

In the budgetary review process, more time is spent justifying and questioning a department's entire request than is spent on its requests for increases only.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

D. The Fair Share Rule

The budgets of most departments and programs grow or decline by roughly the same percent that city revenues grow or decline.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

E. The Marginal Growth Rule

In general, departments and programs can expect a limited amount of additional funds for a coming fiscal year over what they received during a current fiscal year.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

F. The Maintenance Rule (B)

In the budgetary process, there is a major emphasis upon maintaining the services of existing departments and programs at existing levels.

Agree _____
Disagree _____
Uncertain _____
Other (please specify) _____
Comments:

Part IV: Specific Decision Making Cases

Instruction: I will now ask you for your opinions concerning why certain specific funding decisions were made for the 1975 and 1976 fiscal years. If you do not have any recollections of a particular decision, please state so.

A. Background

In 197__, a decision was made to increase/cut the budget of the _____ by $_____, i.e., by _____%. The budget of this department/program went from $_____ in 197__ to $_____ in 197__.

Do you have any recollections of this decision?

_____ Yes (proceed)

_____ No (abort)

B. Classifying Questions

1. Would you describe this decision as typical of the decisions normally made during the budgetary process? If yes, why? If no, why not?

2. (Follow-up) What were the primary reasons for making this decision?

APPENDIX E

SUB-TABLES OF SELECTED QUESTIONNAIRE ITEMS

This appendix contains sub-tables in which the aggregated response patterns cited in Chapter IV are broken down into different categories of officials. The categories used include overview officials (i.e., the chief executives, council presidents, and budget directors), general government program heads, public works program heads, and agency-level officials. The nine agree/disagree items cited here are in the same sequence in which they appear in Chapter IV. These items concern the incremental decision rules, and the behavior patterns of the chief executive, the council, and the agency/program heads.

TABLE 38

THE SAFE BASE RULE

Statement: "In most cases, a department or program head can assume that their current year's funding level will be continued with little question or challenge from one year to the next."

a. Overview Officials

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	3	100.0	2	66.7	5	83.3
Disagree	0	0.0	1	33.3	1	16.7
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0

b. General Government Officials

Agree	7	77.8	6	60.0	13	68.4
Disagree	1	11.1	3	30.0	4	20.1
Other	1	11.1	1	10.0	2	10.5
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	99.0

c. Public Works Officials

Agree	3	75.0	2	50.0	5	62.5
Disagree	1	25.0	1	25.0	2	25.0
Other	0	0.0	1	25.0	1	12.5
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0

d. Agency-Level Officials

Agree	2	50.0	5	83.3	7	70.0
Disagree	1	25.0	1	17.7	2	20.0
Other	1	25.0	0	0.0	1	10.0
D.K./N,R,	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 39

THE INCREASE FOCUS ROLE

Statement: "In the budgetary review process, more time is spent justifying and questioning a department's entire request than is spent on its requests for increases only." (Emphasis added orally.)

	City A		City B		Totals	
	#	%	#	%	#	%
a. Overview Officials						
Agree	0	0.0	0	0.0	0	0.0
Disagree	2	66.7	3	100.0	5	83.3
Other	1	33.3	0	0.0	1	16.7
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0
b. General Government Officials						
Agree	3	33.3	3	30.0	6	31.6
Disagree	6	66.7	4	40.0	10	52.6
Other	0	0.0	2	20.0	2	10.5
D.K./N.R.	0	0.0	1	10.0	1	5.3
Totals	9	100.0	10	100.0	19	100.0
c. Public Works Officials						
Agree	2	50.0	1	25.0	3	37.5
Disagree	2	50.0	1	25.0	3	37.5
Other	0	0.0	2	50.0	2	25.0
D.K./N.R.	0	0.0	0	10.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0
d. Agency-Level Officials						
Agree	3	75.0	4	66.7	7	70.0
Disagree	0	0.0	2	33.3	2	20.0
Other	1	25.0	0	0.0	1	10.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 40

THE FAIR SHARE RULE

Statement: "The budgets of most departments (or programs) grow or decline by roughly the same percent that city revenues grow or decline."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Overview Officials						
Agree	2	66.7	3	100.0	5	83.3
Disagree	0	0.0	0	0.0	0	0.0
Other	1	33.0	0	0.0	1	16.7
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0
b. General Government Officials						
Agree	0	0.0	3	30.0	3	15.8
Disagree	7	77.8	6	60.0	13	68.4
Other	2	22.2	1	10.0	3	15.8
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	10	100.0	8	100.0
c. Public Works Officials						
Agree	1	25.0	1	25.0	2	25.0
Disagree	2	50.0	2	50.0	4	50.0
Other	1	25.0	1	25.0	2	25.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0
d. Agency-Level Officials						
Agree	0	0.0	3	50.0	3	30.0
Disagree	3	75.0	3	50.0	6	60.0
Other	1	25.0	0	0.0	1	10.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 41

THE MAINTENANCE RULE (A)

Statement: "The city government is just as concerned with determining the need for and establishing new services as it is with maintaining existing services at acceptable levels."

a. Overview Officials

	City A		City B		Totals	
	#	%	#	%	#	%
Disagree	3	100.0	2	66.7	5	83.3
Agree	0	0.0	1	33.3	1	16.7
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	0.0	3	100.0	6	100.0

b. General Government Officials

Disagree	4	44.4	2	20.0	6	31.6
Agree	5	55.6	5	50.0	10	52.6
Other	0	0.0	3	30.0	3	15.8
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.0

c. Public Works Officials

Disagree	1	25.0	1	25.0	2	25.0
Agree	2	50.0	2	50.0	4	50.0
Other	1	25.0	1	25.0	2	25.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0

d. Agency-Level Officials

Disagree	1	25.0	1	16.7	2	20.0
Agree	2	50.0	4	66.7	6	60.0
Other	1	25.0	1	16.7	2	20.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.1	10	100.0

TABLE 42

THE MAINTENANCE RULE (B)

Statement: "In the budgetary process, there is a major emphasis upon maintaining the services of existing departments and programs at existing levels."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Overview Officials						
Agree	3	100.0	3	100.0	6	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0
b. General Government Officials						
Agree	9	100.0	8	80.0	17	89.5
Disagree	0	0.0	1	10.0	1	5.3
Other	0	0.0	1	10.0	1	5.3
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.1
c. Public Works Officials						
Agree	4	100.0	3	75.0	7	87.5
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	1	25.0	1	12.5
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0
d. Agency-Level Officials						
Agree	4	100.0	6	100.0	10	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 43

THE MARGINAL GROWTH RULE

Statement: "In general, departments and programs can expect a limited amount of additional funds for a coming fiscal year over what they received during a current fiscal year."

a. Overview Officials

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	3	100.0	3	100.0	6	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0

b. General Government Officials

Agree	8	88.9	8	80.0	16	84.2
Disagree	1	11.1	2	20.0	3	15.8
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.0

c. Public Works Officials

Agree	4	100.0	2	50.0	6	75.0
Disagree	0	0.0	1	25.0	1	12.5
Other	0	0.0	1	25.0	1	12.5
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0

d. Agency-Level Officials

Agree	3	75.0	5	83.3	8	80.0
Disagree	1	25.0	1	16.7	2	20.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 44

CHIEF EXECUTIVES AS BUDGET REQUEST CUTTERS

Statement: "Program and department heads tend to expect their budget requests to be cut by the Chief Executive."

a. Overview Officials

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	3	100.0	3	100.0	6	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0

b. General Government Officials

Agree	8	88.9	8	80.0	16	84.2
Disagree	1	11.1	2	20.0	3	15.8
Other	0	0.0	0	0.0	0	0.0
N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.0

c. Public Works Officials

Agree	4	100.0	4	100.0	8	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0

d. Agency-Level Officials

Agree	4	100.0	4	66.7	8	80.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	1	16.7	1	10.0
D.K./N.R.	0	0.0	1	16.7	1	10.0
Totals	4	100.0	6	100.1	10	100.0

TABLE 45

PROGRAM AND AGENCY HEADS AS BUDGET PADDERS

Statement: "Department and program managers generally ask for more funds than they expect to receive."

	City A		City B		Totals	
	#	%	#	%	#	%
a. Overview Officials						
Agree	3	100.0	3	100.0	6	100.0
Disagree	0	0.0	0	0.0	0	0.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0
b. General Government Officials						
Agree	7	77.8	7	70.0	14	73.7
Disagree	2	22.2	3	30.0	5	26.3
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.0
c. Public Works Officials						
Agree	4	100.0	2	50.0	6	75.0
Disagree	0	0.0	1	25.0	1	12.5
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	1	25.0	1	12.5
Totals	4	100.0	4	100.0	8	100.0
d. Agency-Level Officials						
Agree	3	75.0	6	100.0	9	90.0
Disagree	1	25.0	0	0.0	1	10.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0

TABLE 46

CITY COUNCILS AS RUBBER STAMPS

Statement: "The city council tends to accept the executive budget in tact with few or no revisions."

a. Overview Officials

	City A		City B		Totals	
	#	%	#	%	#	%
Agree	2	66.7	1	33.3	3	50.0
Disagree	1	33.3	2	66.7	3	50.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	3	100.0	3	100.0	6	100.0

b. General Government Officials

Agree	9	100.0	5	50.0	14	73.7
Disagree	0	0.0	3	30.0	3	15.8
Other	0	0.0	2	20.0	2	10.5
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	9	100.0	10	100.0	19	100.0

c. Public Works Officials

Agree	4	100.0	3	75.0	7	87.5
Disagree	0	0.0	1	25.0	1	12.5
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	4	100.0	8	100.0

d. Agency-Level Officials

Agree	4	100.0	2	33.3	6	60.0
Disagree	0	0.0	4	66.7	4	40.0
Other	0	0.0	0	0.0	0	0.0
D.K./N.R.	0	0.0	0	0.0	0	0.0
Totals	4	100.0	6	100.0	10	100.0