

CORNELL
AGRICULTURAL ECONOMICS
STAFF PAPER

DECISION-MAKING IN THE PUBLIC SECTOR:
MODELS OF THE BUDGET PROCESS

By

Bert Mason

February 1976

No. 76-12

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York, 14853

Decision-Making in the Public Sector:
Models of the Budget Process

by

Bert Mason

Community resource development has been a matter of concern for academicians and politicians for some time. Despite copious rhetoric about the subject, it remains an ill-defined field of public affairs and there has been little accomplishment, either theoretical or practical. This lack of success is in part due to the inability of research and extension to link with local institutions, particularly rural local government. The underlying conviction motivating this essay is that relevant research requires a more thorough understanding of policy-making practices of local governments.

The single most important act (or set of actions) of local governments is the annual formation of the budget. Budget decision-making involves the crucial choice among alternative expenditures which compete for limited resources. Unfortunately, little research effort has been expended in attempting to answer a seemingly basic question: "How do policy-makers decide to spend the revenues available to them?" Literature that is available focuses on national rather than local budget-making. The objective of this essay is to critique and organize some of the representative work on the topic of public decision-making. There exists a disparate body of work--from the fields of sociology, political science, and economics--that provides some useful insight into decision-making in the public arena. Some of this work looks specifically at the budget process, while others are concerned with the broader aspects of public choice.

This essay considers two major topics. The first deals with generic models which attempt to describe how social wants are transformed into public actions. While these public choice models focus primarily on positive descriptions of real-world observation, some also contain normative prescriptions about the ways by which public demands should be articulated and legitimized to form governmental policy. The second section of this paper discusses several empirical analyses which examine local government budget-making as a specific case of the public choice process.

A. Models of Public Choice

There are divergent views about how the political structure transforms social interests into public action and the extent to which process affects outcome. For pedagogical purposes, it is useful to employ a dichotomous classification that oversimplifies differences in points of view.^{1/} In one

^{1/} This dichotomous classification is discussed in Steiner [1969].

view, the political process is a market-like mechanism which merely translates the preferences of society into public policy. Governmental decision-makers act merely as reactors and processors of the signals they receive, and exercise no independent judgement of their own.

The second view of how the political structure articulates the public interest allows more freedom to the politician than does the market-analogy approach. In this view, individual social preferences exist, but they are sufficiently inchoate, ambiguous, or conflicting to leave decision-makers with substantial discretionary choice. This model explicitly introduces governmental discretion in public choice, and returns to the older political science view that individual values are sublimated to interest groups.

A.1. Government as a Quasi-Market. In market-type analyses of public choice, the role of the public official is merely to transform public interests into actions. There are two basic views about how decision-makers can (or should) identify societal consensus. One view, used primarily in the theory of public finance, is to ask an individual how much he is willing to pay (i.e., to be taxed) to provide a public good.^{2/} This approach, as developed by Bowen [1948] and Samuelson [1954], has been labeled the pure theory of public expenditure. From society's viewpoint, demands for a collective good are complementary rather than competitive. Therefore, the market demand curve is the vertical addition of individual demands. If the aggregate sum of willingness to pay of different individuals exceeds the cost of provision, the good should be provided. This case is analagous to the provision of a private good, except for the important difference that efficiency for a private good requires equality of marginal benefit derived by each individual with marginal cost,

^{2/} The concept of public or collective goods has been defined in many ways for diverse purposes. One approach is to base a definition on the technical characteristics of goods that differentiate public and private goods. Samuelson [1954], among others, defines a (pure) public good as one that is nonrival and nonexcludable in consumption and the marginal cost of extending its benefits to an additional consumer is zero.

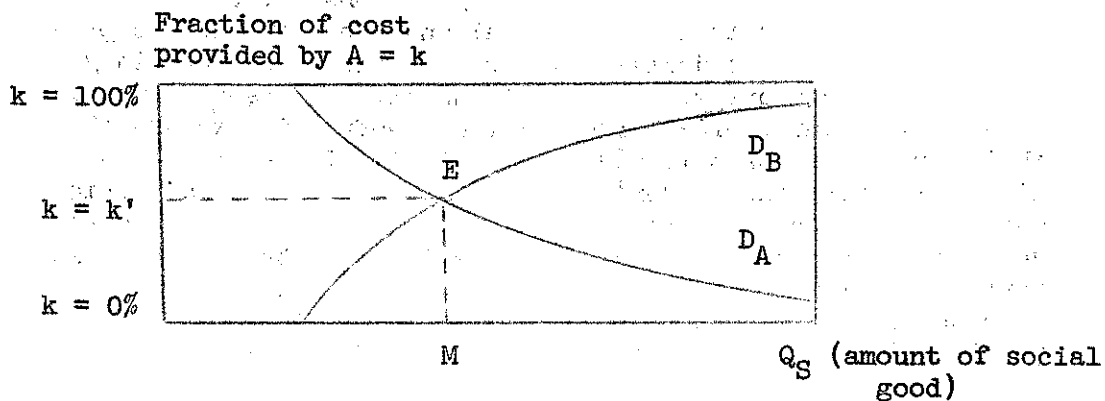
Steiner [1969: p. 17], based on the observation that few government-provided goods meet these technical criteria, offers a less restrictive definition of a public good: "...any publicly induced or provided collective good is a public good," where a collective good requires "(1) an appreciable difference in either quantity or quality between it and the alternatives the private market would produce, and (2) a viable demand for the difference." Steiner also notes that a collective good may be provided either publicly or privately.

whereas in the case of the social good it is the sum of the marginal benefits that should equal marginal cost.^{3/}

The willingness to pay approach has important qualifications and limitations. First, it is a partial view that does not account for the interdependencies between the quantities and prices of social and private goods. Second, this approach ignores the distribution question, since an individual's willingness to pay reflects the status quo, particularly with respect to his income and wealth. Finally, this mechanism offers no insight into how public decision-makers can discover the willingness to pay of the individuals. In fact, as Mancur Olson [1965] has shown, the rational individual will not voluntarily reveal his preferences for a social good in the absence of exclusion.

A second view considers the public interest of a society as being an aggregate of the utilities of the individuals who comprise society. Each individual is assumed to maximize his utility subject to budget constraints. It is assumed that each individual derives satisfaction from both private and social goods. The role of the political process would be to choose optimal solutions as determined by some aggregate of these individual welfare functions. In attempting to remain value-free and scientific, the "New Welfare Economics" has required that individual utility functions be ordinal in

^{3/} A somewhat different way of examining the social good, as presented by Erik Lindahl, is as follows:



The vertical axis measures k or the fraction of unit cost contributed by A. Given the unit cost C and assuming it is to be constant, kC is the price paid by A and D_A in his demand schedule for the social good S .

Since B's price equals $(1-k)C$, and since both share the same quantity of S , B's demand curve drawn with regard to k is given by D_B . Individual A may then look upon D_B as showing the price at which various quantities of S are available to him, i.e., as a supply schedule for the social good which confronts him. B similarly may regard D_A as his supply curve.

The fraction of the price which both are willing to pay (k for A and $(1-k)$ for B) adds to one at the intersection of D_A and D_B , at output OM .

[Musgrave and Musgrave: p. 59].

nature.^{4/} The problem arises when aggregation of individual preferences is attempted; this leads to interpersonal comparisons of utility which are unjustifiable on the basis of ordinal preference functions.

The efforts of the New Welfare Economics, as represented by Hicks, Kaldor, Scitovsky, and Little (among others), have centered on the compensation principle. The purpose of compensation is to establish a social welfare function that is unanimously agreed upon by members of the society. If this can be accomplished, welfare comparisons between alternative social states are possible. In a simplistic interpretation, the compensation criteria are based on the concept that those who gain in moving from one state of the economy can compensate those who lose from this action, or alternatively, those who will lose bribe those who will gain so that the move is not consummated. The compensation approach, however, does not ensure that individual preferences will aggregate to form fully transitive social preferences.^{5/} However, as Quirk and Saposnick concluded

the compensation principle in any of its various formulations does not represent a logically consistent technique for extending the scope of the Pareto ranking. To the extent that it is logically consistent with arbitrary preference rankings of consumers, it is identical to the Pareto ranking itself [1968: p. 123].

It seems that the New Welfare Economics has striven without success to establish the theoretical connection between an individual's utility associated with various states of the economy and a value-free aggregate preference function which accurately reflects these individual utilities. As Steiner has stated

The major objection to a utility-consensus view of social welfare is that it is nonoperational and does not seem to provide guidance to the decisions of real societies. Certainly we do take decisions with less than unanimous consent. Certainly too, many public goods provide benefits in excess of their contributions only to very small minorities of the society, but with the evident acquiescence of sizable majorities. One can argue that, ex post, individuals are thus revealed to value the benefits which accrue primarily to others. But this rationalization leads us back to a de facto definition: Whatever the Government does is revealed to be desired by the people [1969: p. 26].

Various authors have attempted to operationalize these market-analogy models. In these models, voting is the means by which the individual reveals his social preferences. Examples of this utility-maximization approach are

^{4/} An ordinal utility function requires that an individual is able to rank commodities in order of preference. It is not necessary that the individual assign numbers that represent (in arbitrary units) the degree or amount of utility derived from each commodity.

^{5/} Transitive preferences are defined as: if A is preferred to B and B is preferred to C, then A must be preferred to C.

the works by Downs [1957], Maass [1962], Haefele [1971], and Bowen [1948]. In Down's model, the government consists of men who desire reelection. The primary objective of decision-makers is to maximize their political support. To gain the citizens' support, politicians must cater to what they believe to be individuals' concepts of their welfare. Haefele [1971] extended this model to allow the individual expression of preference intensity by allowing vote-trading and negative preferences. Given the possibility of negative preference expression and vote-trading, majority rule will determine a social choice while still reflecting individual preference orderings.

Market theories have been subjected to question and criticism. Arrow's [1963] well-known paradox of collective choice illustrates that majority voting will not necessarily result in a completely transitive set of social preferences. Furthermore, Buchanan [1954] has pointed out several important differences between voting and decentralized market decisions: (1) Voting involves an extra dimension of uncertainty; consequences follow the collective vote, not the individual vote. (2) In voting, the individual is influenced by his sense of participation in social choice. (3) In voting, the individual is often faced with indivisible votes for mutually exclusive choices. (4) Minority votes are wasted, whereas even minority preferences exert influence in the market. (5) Typically, voting provides equality of influence of individuals, instead of reflecting command over resources.

A.2. Group Politics Model. The second point of view of how public choices are made explicitly introduces governmental discretion. In this approach, society is made up of individuals, but it need not be a mere aggregate of their individualistic preferences. Until recently, this approach has been utilized primarily by political scientists and political sociologists. Individuals yield certain powers to political and economic groups as well as the government which is in turn charged with discovering, articulating, and implementing collective desires. Societal policy is not made by voters, but by representatives in one form or another. The link between individual utility functions and social action is tenuous, but not necessarily totally absent. The vehicle which transports individual preferences to the representatives is group alliances and associations. The viewpoint of the older political science literature on group action is summarized by Truman:

Any society, even one employing the simplest and most primitive techniques, is a mosaic of overlapping groups of various specialized sorts. Through these formations a society is experienced by its members, and in this way it must be observed and understood by its students. These group affiliations, with varying degrees of completeness and finality, form and guide the attitudes and therefore the behavior of their participants [1958: p. 43].

In the group theory model, public officials base their decisions on the outcome of pluralistic competition among interest groups. For example, Dorfman [1966] developed a model in which decision-makers respond to group pressures; but have some ends of their own and the ability to pursue them by choosing the relative weights of the groups' interests.

The inherent limitation of the pluralistic approach is that it lacks any definite indication that one state of society is clearly preferred to another in a wholly unambiguous sense. This means that public decisions can be shown

to be valid or socially preferable only in terms of particular value judgements or in terms of the adequacy of the political process which results in certain kinds of political decisions.

Both the market-analogy and group politics models deal with the question of relative roles assumed by governmental officials and citizen voters in determining public decisions. Some students of public choice have focused instead on decision strategies employed by policy-makers in transforming public interests into policy actions.

A.3. Decision Strategies. Braybrooke and Lindblom [1963] state that using the social welfare function approach of economists, which they label the ideal of science, policy-makers would make decisions through a rational-deductive method. To attain this formal (or synoptic) ideal the policy-maker must have complete information of his constituency's preferences and of all feasible alternatives and their potential consequences. The rational-deductive ideal to the economist would be obtaining and implementing the preferences revealed in a social welfare function. Braybrooke and Lindblom believe that the social welfare function approach holds little merit in describing how public choices are made and that "the fundamental reason why analysts do not employ a rational-deductive system or a welfare function in a policy analysis is simply that no one has ever been able to actually construct either" [1963: p. 22]. The barriers to application of the synoptic ideal, i.e., the social welfare functions, are, according to the authors [p. 113]:

1. Man's limited intellectual capacities
2. His limited knowledge
3. The costliness of analysis
4. The analyst's inevitable failure to construct a complete rational-deductive system or welfare function
5. Interdependence between fact and value
6. The openness of the systems to be analyzed
7. The analyst's need for strategic sequences to guide analysis and evaluation
8. The diversity of forms in which policy problems actually arise.

Having shown why idealized theories of decision-making have failed to provide effective guides for analysis, the authors outline a strategy of decision --the strategy of disjointed incrementalism.

Briefly, the strategy of disjointed incrementalism hinges on the belief that policy investigations focus on the increments by which the social states that might result from alternative policies differ from the status quo. Thus, compared to the social welfare function, which requires rankings of all possible social states, the strategy requires evaluation of social states only incrementally different from the present state. Since these marginal social decisions are made on a socially fragmented basis by a large number of decision-making units in society, with no apparent coordination between the various parts, the strategy of decision is labeled "disjointed." That is, policy decisions are made by comparing the marginal differences between incrementally distinct alternatives, with a multiplicity of disjointed decisions aggregating to form social policy.

The strategy of decision presented by Braybrooke and Lindblom seems to provide an applicable description of empirical decision-making, while also offering a workable guide for the policy-maker. The major advantage of this strategy of decision is that it adapts problem-solving methods to problem-solving situations. The major limitation of this approach would appear to be in its inability to handle the occasional, but important, situation where societal action requires a radical departure from the status quo policy.

In conclusion, the theory of public choice is subject to varying interpretations and remains largely inconclusive. Several economists and political scientists have attempted to verify and extend these public choice models through empirical examination of budget-making in the governmental sector. This body of empirical research can be divided into two major categories: economic analyses of public budget-making (particularly at the municipal level), which have attempted to quantify causal relationships between the composition and level of budgets and hypothesized socio-economic explanatory variables; and political science research, which has centered principally on identifying relationships between the structure of decision-making processes and resultant budgetary outcomes.

B. Empirical Analyses of Budget-Making in the Public Sector

B.1. Economic Analyses of the Budget. In analyzing governmental budgets, economists have focused primarily on environmental (usually socio-economic) variables which affect the composition and quantity of services provided by different units of government. This aggregative approach is not concerned with how the independent variables (e.g., income, density, population) are translated into the dependent variable of governmental expenditures; no consideration is given to the effects which the decision-making process may exert on budgetary outcomes. Rather, this school sees the sole source of influence as external to the government; i.e., the budget is determined by the economic, political, and social environment in which the government is located. Since this body of literature is extensive, the following review will attempt to select a representative sample from the existing work.

One of the earliest studies of local government expenditures was by Gerhard Colm in 1937. Colm utilized scatter diagrams to examine the relationships between state and local expenditures and several variables such as population, urbanization, and industrialization.

In 1952, Solomon Fabricant used cross-section national data to find that local governmental expenditures were positively correlated with population density, urbanization, and income. Glenn Fisher [1961] updated Fabricant's work using 1957 data. He found that the variables identified as significant by Fabricant were no longer as powerful as found by Fabricant in explaining differences in governmental expenditures. Fisher [1964] later expanded this work to include three major categories of variables: economic variables (percentage of families in poverty, yield of tax system); demographic variables (population density, urbanization, and population increases); and sociopolitical variables (two-party competition and education).

Sacks and Harris [1964] added federal and state aid as independent variables to the basic Fabricant model. It was found that the level of intergovernmental aid and local income accounted for most of the variation in local governmental expenditures.

Harvey Brazer [1959] examined total governmental expenditures as well as specific expenditures such as police and fire protection, education, and highways for 462 cities. Brazer found that population density, median family income, and intergovernmental revenues were statistically significant in explaining the level of expenditures for municipal government.

Recent work which attempts to explain variations in governmental expenditures have utilized more sophisticated econometric techniques, but their basic approach remains similar to Fabricant's. Ann Horowitz [1968] used a simultaneous equation approach to explain interstate differences in state and local government expenditures. Regarding federal aid as an endogenous variable, Horowitz found that personal income and tax effort were significantly correlated with governmental expenditures and employment. Henderson [1968] has utilized a welfare-optimizing model to analyze the behavior of local governments. Henderson's major finding was that per capita income was the most powerful explanatory variable in describing cross-sectional differences in local government expenditures. In his two-equation model, Henderson estimated that a marginal income dollar generated a 7.9 cent increase in urban governmental expenditures, while a similar increase in personal income in rural areas increased governmental expenditures by 4 cents.

There has been some work by political economists which attempts to introduce political measures as explanatory independent variables. Dye [1966] found that political variables such as party competition, partisanship, and apportionment were much less powerful than the usual economic factors in explaining intergovernmental variations in expenditures. Another approach has been to look at the local governmental structure as it relates to expenditure levels. Booms [1966], in analyzing a sample from Ohio and Michigan cities, found that average per capita expenditures for mayorial cities were greater than those for manager-cities. Lineberry and Fowler [1967], using cross-sectional national data, also found that manager-cities spend and tax less than mayorial cities.

Perhaps the most interesting political-economic analysis of governmental expenditures has been that of Davis and Harris [1966]. In that study, Davis and Harris attempted to utilize political theory rather than simple political variables. In testing a simple voter utility maximization model, the authors found that a general Downsian model explains in part, expenditure and taxation decisions. The Downsian model asserts that the elected executive (the mayor) is primarily interested in (or susceptible to) giving rewards to community groups for the purpose of encouraging favorable consideration at elections.

In summary, economists have relied primarily on statistical analysis of various socioeconomic variables in attempting to explain inter-regional variations in local governmental expenditures. While this review is admittedly brief and somewhat sketchy, the intent has been to convey the flavor of this research. Two major limitations are inherent in this approach. First, outputs of policy decisions are examined; no consideration is given to the inputs into the decision process. Very basic questions of policy analysis are ignored--how have these decisions been made and why have local officials followed these expenditure programs? Most of the political-economic studies share the implicit assumption that the political process acts as a translator between needs and results, but no consideration is given to the question of how this process works or how it might affect policy outputs. Statistical manipulation of highly aggregated data offers insight into a limited range of inquiry, the basic fault of this approach is that it does not ask the right questions.

The second major limitation of the expenditure determination approach is that it addresses itself only to deviations from a mythical "mean" governmental unit. Why have governmental expenditures increased over a long period of time? Most importantly, what policy implications arise from such research? Certainly wealthier areas can afford to spend more of their income on governmental services relative to their poorer counterparts--but such self-evident findings offer little for the policy analyst or the policy-maker. Meltzner and Wildavsky criticize the aggregative approach's ability to guide public policy:

Aggregates like per capita income and level of taxation must be connected to individual behavior if the research is to be instructive. For wisdom the advocate of the aggregative approach can offer only, "Mr. Mayor, if your city were richer, it would spend more." If cities were not poor, they might be rich [1970: p. 318].

An alternative approach to the study of budgeting examines the behavior of city officials and views the budgetary process in terms of an internally negotiated, problem-solving sequence in an organizational environment. This behavioralist approach will be discussed in the following section.

B.2. Budgetary Decision-Making. The behavioral approach to budget-making focuses on the actions of individual decision-makers and the relationship between organizational structure and policy outcomes. While a substantial body of literature exists concerning the budget process at the federal and state levels of government, as represented by Wildavsky [1964], this review centers on applications at the local levels of government. Previous research has been primarily concerned with urban municipal government, with little attention given to budget-making in smaller (and rural) units of local government.^{6/}

Previous studies using the behavioral approach can roughly be divided into two sub-categories. One approach focuses on the cognitive and evaluative processes individual decision-makers use when choosing alternative courses of action. The other focuses on patterns of interaction among participants in the process. This latter approach examines the distribution of power and influence as it relates to decision processes and policy outcomes. Several authors have combined these two approaches, describing both the individual evaluative processes as well as the interactions among the decision-makers.

B.2.1. Decision Strategies in Budget-Making. The first approach to budgetary decision-making examines the strategies and rules used by policy-makers to simplify the process of budgetary choice. The basic model by most of these researchers is Braybrooke and Lindblom's [1963: see section A.3 of this essay] strategy of incrementalism. Limited by the capacities of human problem solving, the decision-maker cannot follow a rational-deductive model. Rather, the decision-maker simplifies the search and selection procedure by examining alternative policies which differ only incrementally from present budget levels. Calculation is aided by rules that call for noncomprehensive

^{6/} For a description of budget-making in two rural California counties, see Mason [1975], Chapter VI.

and nonexhaustive search for alternatives and their consequences. Referring to the federal budget, Wildavsky [1964: p. 15] observed, "The men who make the budget are concerned with relatively small increments to an existing base. Their attention is focused on a small number of items over which the budgetary battle is fought." In a later article, Meltsner and Wildavsky [1970: p. 319] applied this observation to local budget-making:

Municipal budgetary behavior is simple. Officials do not review their total budget but make small changes every year around the margins of their base amount within an overall resource constraint. They use simplifying procedures not just to reduce the budget but to cut the decision problem to size.

Several descriptions of the municipal budget process have found evidence of incremental decision-making. Barber [1966], examining the boards of finance in Connecticut, discovered that decision-makers utilize rules to simplify the problem of making resource allocations. Items beyond the control of the boards, because of legal or traditional mandates, are given little review in the budget process. Discussion is focused on large increases or decreases in budgets. The budget is considered horizontally (items across years) rather than vertically (between departments). Concrete, nuts-and-bolts aspects of the problem are discussed, with attention given to dollars-and-cents questions rather than analysis of the basic merits of a program.

In his study of three Illinois cities, Anton [1964] found that two of the municipalities allocate their resources on an incremental basis. Most of the decisions are made by the city managers by concentrating on changes from the previous year's budget. Quoting the city manager [Anton, 1964: p. 14]:

. . . I don't like to waste a lot of time on items which we know we are going to have to support. So if we get an item in here in a departmental budget we know we've been spending money on for the last three or four years and it looks as though we are going to have to be spending money for the next few years. I don't waste time trying to justify that expenditure. When I make up the budget I try to comment only on items which represent an increase in spending or a new program of some kind that is different from what we have been doing previously.

However, Anton found that this incremental pattern is sometimes broken when the city councils attempt to balance the budget. For a fully developed program-planning-budgeting system (PPBS), expenditures would be organized into program categories which represent the various goals that are being sought.^{7/} Budget decisions would then be made on the basis of a systematic comparison of alternative proposals, both within departments and among program categories. Anton found one city using such criteria in an elementary fashion. Department heads are "required to present detailed justification for each request and are charged specifically with analyzing their entire department's operations with

^{7/} The PPB system has been described as "an approach to decision-making designed to help make as explicit as possible the costs and consequences of major choices and to encourage the use of this information systematically in the making of public policy" (J. Carlson [1969: p. 613]).

a view of effectuating every economy possible" [Anton, 1964: p. 11]. This, coupled with the required statement of each department's performance goals, lead Anton [op. cit.] to conclude that the budget "takes on the character of a financial plan, which states the dollars and cents cost of achieving specified policy goals."

Most empirical work on the choice process involved in municipal budgeting concludes that individual decision-makers utilize a strategy of incrementalism in forming fiscal policy. One exception has been found by Anton [1964], who discovered that an Illinois city used an unsophisticated variant of the rational deductive model of decision-making. Mushkin [1971] has also found some evidence of the spread of a PPBS-approach to budget-making in the local level of government.

B.2.2. Participant Interaction and the Budget Process. An alternative approach to examining budgetary decision-making is to identify important participants in the budget process and to examine the interactions among these participants. Crecine [1969], in a study of budget-making in three large cities (Pittsburgh, Detroit, and Cleveland), identifies four major actors in the budget process. These are the department heads, the executive (either manager or mayor), the city council (legislature), and community interest groups (in a pluralistic sense) or influential citizens (in an elitist model). In Crecine's model, the budget process is divided into three steps. First, the department heads decide how much they should ask for in their initial budget request. Crecine found that once the department heads formally submit their requests to the executive, they assume essentially passive roles in the budget process; department heads rely heavily on the executive's cues on what might be the acceptable range of requests. Departmental administrators rarely appeal to the legislature to protest decisions by the executive.

In the second stage of the budget process, the executive faces the task of balancing budget requests with anticipated revenues. Since departmental requests invariably exceed revenues, the executive must decide who shall be cut and by how much. According to Crecine, these decisions are not made in consultation with either department heads or the council.

The final stage of the budget process involves the ratification of the budget by the council. Crecine found that the council rarely made changes in the balanced budget presented by the executive. The council, in "virtually every case, approved the mayor's budget almost exactly as submitted" [1969: p. 35].

Crecine describes the entire budget process as executive-controlled. There was no significant input by community groups or elites discovered. Crecine [1969: p. 192] concludes that "what our model suggests is that budgets in municipal government are reasonably abstracted documents bearing little direct relationship to specific community pressures."

The executive-centered budget model described by Crecine has also been supported by other researchers. Meltsner and Wildavsky [1970], in their study of Oakland, claim that the key figure in the budget process is the city manager. They found that Oakland's budget process is more decentralized than that described by Crecine, but the overall picture is dominated by the city manager. In Oakland, the budgetary process is made up of a series of

bargains, where decisions made at one level are appealed at a higher level of authority. However, most of this bargaining takes place between department heads and the city manager. Appeals rarely get to the council; if they do, the executive's decision is usually supported. "The outcome is that a great many of the analysts' decisions prove to be final but the departments cannot be certain that an appeal is hopeless" [Meltsner and Wildavsky, 1970: p. 177].

The major objective of the city manager in Oakland is to meet the recurring revenue constraints. In attempting to meet this objective, the city manager and his staff assume the role of budget cutters. In contrast to Crecine's model, Meltsner and Wildavsky found that department heads pay little attention to the initial instructions by the city manager. The conflicting aims of the departments and the manager create two disjunctions in the budget process: "(a) the spenders (department heads) ignore revenue limitations in formulating their programs and (b) the cutters (city manager) ignore program and service considerations in balancing the budget" [Meltsner and Wildavsky, 1970: p. 333].

Meltsner and Wildavsky lend support to the executive-centered model of the municipal budget process. Although more bargaining takes place between individual department heads and the executive than allowed by Crecine, the budget is essentially that of the city manager. The Oakland City Council takes a passive role in accepting the executive's budget; in 1967, the budget was adopted without change after a short four-hour presentation by the manager. Also lacking in Oakland is any significant input into the budget-formation process by community interest groups.

Researchers in other cities have found that the budget process is not dominated by the executive. Anton [1964] reports that in two of the three Illinois cities he studied the council makes the decisions necessary to balance the budget. The executive's role in these municipalities is merely to transmit departmental requests to the council. Anton also found that considerable interaction exists between department heads and the council in deciding budgetary allocations. Solutions are "worked out in confrontation of (council) committee with departments" [Anton, 1964: pp. 15-16]. Caputo [1970: p. 11] likewise rejected the executive-centered model of budget-making: "It is possible to conclude that no one participant (or group of participants) can formally or informally dominate the budget process."

In summary, the budget-making process has been characterized on a continuum ranging from a hierarchical, executive-controlled process to a legislative-dominated process, where both extremes are dominated by one branch of the government. Absent in this research is any examination of the relationship between the community power structure and public involvement in budgetary decision-making. A group of researchers, most of whom are sociologists or political scientists, have considered this possibility.

B.2.3. Community Participation in Budget-Making. Caputo [1970], a political scientist, found that community groups may participate meaningfully in budgetary decision-making. In his four-city study, Caputo reported that interest groups did participate in the budget process and "attempted, usually with some degree of success, to influence the budgetary process and to change budgetary allocation decisions" [1970: pp. 11-12]. However, Caputo did not attempt to identify the nature of these groups or more importantly, what might be their power base.

Most of the research on community power has not examined the specific relationship between power stratification and budgetary decision-making. The budget process is usually considered to be affected implicitly by the distribution of power in the community. One school of thought, as represented by the Lynds [1937] and Hunter [1953], has postulated that the pattern of the community power structure and of the municipal decision-making process is attributable to the community social structure and to the desires and interests of the "ruling elite." This influential elite is composed almost exclusively of members of the upper-income brackets of the community. In an elitist model, budgetary decision-making processes would tend to be centralized and expenditure outputs would reflect the interests of the economic elite.

Other researchers such as Dahl [1961] and Polsby [1963] assert that political decisions are the equilibria resulting from compromises between the competing interests of pluralistic power groups. The pluralists see American society as fragmented into "hundreds of small special interest groups, with incompletely overlapping memberships. . . and a multitude of techniques for exercising influence on decisions salient to them" [Polsby, 1963: p. 118]. Presumably, budgetary decisions would reflect the interests of these pluralistic power groups.

Terry Clark [1972] has attempted to relate the distribution of power in 51 communities to policy and budgetary outcomes. His basic conclusion is that larger, more economically diversified cities with governmental structures favoring citizen participation have more decentralized and pluralistic patterns of decision-making. These decentralized decision-making patterns tend to correlate positively with larger budgetary expenditures (on a per capita basis). Since decentralization was found to be positively related to community size, a corollary conclusion is that smaller, rural communities would tend to have relatively smaller budgets than urban municipalities.

In small rural communities, it might be posited that decision-making would be centralized with low levels of public input into the budget process. Most empirical studies indicate that smaller communities tend to have less pluralistic power structures than those found in metropolitan communities. Among others, the studies by Vidich and Bensman [1958], the Lynds [1937], and Goldschmidt [1947] found that small communities were characterized by elite power structures. Thus, applying the results of Clark's [1972] research, a priori expectations would indicate that the budget process in rural local government would tend towards centralization of power and would exhibit an absence of community input.

C. Summary

The purpose of this paper has been to review the relevant literature which relates to the question of how public choices are made (and how they should be made). Particular emphasis has been placed on decision-making in the formation of governmental budgets. The importance of decision-making strategies as well as the patterns of interaction among the policy-makers as they affect expenditure outcomes have been pointed out. Most budget-makers tend to utilize an incrementalist strategy, although some infrequent evidence exists that municipalities occasionally follow a more deductive and programmatic approach. Previous research has found that the structure of budgetary

decision-making varies widely among municipalities. The budgetary process ranges from a hierarchical, executive-dominated process at one end, to a legislative-controlled process at the other end of centralization, with a decentralized bargaining structure in the middle.

There is considerable divergence among researchers with respect to the question of how budget decisions in the public sector are made. This irresolution of theory and real-world description invokes the usual call for further research in the area. Interactive study which develops theory based on empirical analysis of public decision processes--at national, state, and local levels of government--offers potential for significant contribution to the field. A corollary charge to the researcher is the further development and extension of economic devices for decision-making (such as PPBS, cost-benefit, and cost-effectiveness analysis) to provide policymakers in local governments with some method for organizing their thoughts about public spending and taxing.^{8/} While the instruments of evaluating alternative public expenditures are not highly refined and have been subject to political resistance as well as professional criticism, the underlying concept of introducing economic rationality into the public decision process contains substantial merit.

Bibliography

Agger, Robert, Daniel Goldrich and Bert Swanson, The Rulers and the Ruled, Belmont, California: Wadsworth Press, 1972.

Anton, Thomas J., Budgeting in Three Illinois Cities, Urbana: Institute of Government and Public Affairs, University of Illinois, 1964.

Arrow, Kenneth J., Social Choice and Individual Values, (second edition) New York: John Wiley and Sons, 1963.

Banfield, Edward C. and James Q. Wilson, City Politics, Cambridge: Harvard University and M.I.T. Press, 1963.

Barber, J. D., Power in Committees: An Experiment in the Governmental Process, Chicago: Rand McNally, 1966.

Barr, James L. and Otto A. Davis, "An Elementary Political and Economic Theory of the Expenditures of Local Governments," The Southern Economic Journal, vol. XXXIII, no. 2, October 1966, pp. 149-165.

Bish, Robert L., The Public Economy of Metropolitan Areas, Chicago: Markham Publishing Company, 1971.

Black, Duncan, The Theory of Committees and Elections, Cambridge: Cambridge University Press, 1958.

Booms, B. H., "City Governmental Form and Public Expenditure Levels," National Tax Journal, vol. XIX, June 1966, pp. 187-199.

^{8/} For a thorough discussion of PPBS and its limitations, see Merewitz and Sosnick [1971].

Bowen, Howard R., Toward Social Economy, New York: Rinehart, 1948.

Braybrooke, David and Charles E. Lindblom, A Strategy of Decision, London: The Free Press of Glencoe, 1963.

Brazer, Harvey, City Expenditures in the United States, New York: National Bureau of Economic Research, 1959.

Buchanan, James M., "Individual Choice in Voting and the Market," Journal of Political Economy, vol. 63, August 1954, pp. 334-343.

Caputo, David, "Normative and Empirical Implications of Budgetary Processes," Presented Paper, American Political Science Association, Los Angeles, 1970.

Carlson, Jack W., "The Current Status of PPB," The Analysis of Evaluation of Public Expenditures: the PPB System, Joint Economic Committee of Congress, Washington, D. C.: U.S. Government Printing Office, 1969.

Clark, Terry N., "Community Structure, Decision-Making, Budget Expenditures, and Urban Renewal," American Soc. Review, vol. 33, May 1968, pp. 576-593.

Clark, Terry N., "Basic Concepts: Power Structures, Influence, and Decision-Making," in Harlan Hahn (ed.), People and Politics in Urban Society, Beverly Hills: Sage Publications, 1972.

Colm, Gerhard, "Public Expenditures and Economic Structure," Social Research, vol. 3, February 1936, pp. 57-77.

Crecine, J. P., Governmental Problem Solving: A Computer Simulation of Municipal Budgeting, Chicago: Rand McNally, 1969.

Crecine, J. P. (ed.), Financing the Metropolis: Public Policy in Urban Economies, Beverly Hills: Sage Publications, 1970.

Dahl, Robert, Who Governs?, New Haven: Yale University Press, 1961.

Davis, Otto A., M.A.H. Dempster, and Aaron Wildavsky, "A Theory of the Budget Process," American Political Science Review, September 1966, pp. 529-547.

Davis, Otto A. and G. H. Harris, Jr., "A Political Approach to the Theory of Public Expenditure: the Case of Municipalities," National Tax Journal, September 1966, pp. 259-275.

Dorfman, Robert, "General Equilibrium with Public Goods," presented to International Economics Association Conference on Public Economics, September 1966.

Downs, Anthony, An Economic Theory of Democracy, New York: Harper Brothers, 1957.

Dye, Thomas R., Politics, Economics, and the Public: Policy Outcomes in the American States, Chicago: Rand McNally, 1966.

Fabricant, Solomon, The Trend of Government Activity in the United States Since 1900, New York: National Bureau of Economic Research, 1952.

Fisher, Glenn W., "Determinants of State and Local Government Expenditures: A Preliminary Analysis," National Tax Journal, vol. XIV, December 1961, pp. 349-355.

Fisher, Glenn W., "Interstate Variation in State and Local Government Expenditures," National Tax Journal, vol. XVII, March 1964, pp. 57-74.

Goldschmidt, Walter, As You Sow, New York: Harcourt, Brace, and Company, 1947.

Haefele, Edwin T., "A Utility Theory of Representative Government," American Economic Review, June 1971, pp. 350-367.

Henderson, James M., "Local Government Expenditures: A Social Welfare Analysis," Review of Economics and Statistics, vol. 50, May 1968, pp. 156-163.

Horowitz, Ann R., "A Simultaneous-Equation Approach to the Problem of Explaining Interstate Differences in State and Local Government Expenditures," Southern Economic Journal, vol. 34, April 1968, pp. 459-476.

Hunter, Floyd, Community Power Structure; a Study of Decision Makers, Chapel Hill: University of North Carolina Press, 1953.

Lineberry, R. L. and E. P. Fowler, "Reformism and Public Policies in American Cities," American Political Science Review, vol. LXI, September 1967, pp. 701-716.

Lynd, R. S. and H. M. Lynd, Middletown in Transition, New York: Harcourt, Brace, and Company, 1937.

Maas, Arthur, "System Design and the Political Process: A General Statement," Design of Water-Resource Systems, Cambridge: Harvard University Press, 1962.

Mason, Herbert O., Decision-Making in Rural Local Governments: A Case Study of Revenue Sharing, unpublished Ph.D. dissertation, Department of Agricultural Economics, University of California, Davis; 1975.

Meltsner, Arnold J. and Aaron Wildavsky, "Leave City Budgeting Alone!: A Survey, Case Study and Recommendations for Reform," in J. P. Crecine (ed.), Financing the Metropolis: Public Policy in Urban Economies, Beverly Hills: Sage Publications, 1970.

Merewitz, Leonard and Stephen H. Sosnick, The Budget's New Clothes, Chicago: Markham, 1971.

Musgrave, Richard A. and Peggy B. Musgrave, Public Finance in Theory and Practice, New York: McGraw-Hill Book Co., 1973.

Mushkin, Selma, "PPB for the Cities: Problems and Next Steps," in J. P. Crecine (ed.), Financing the Metropolis: Public Policy in Urban Economies, Beverly Hills: Sage Publications, 1970.

Olson, Mancur, The Logic of Collective Action, Cambridge: Harvard University Press, 1965.

Polsby, Nelson W., Community Power and Political Theory, New Haven: Yale University Press, 1963.

Quirk, James and Rubin Saposnik, Introduction to General Equilibrium Theory and Welfare Economics, New York: McGraw-Hill, 1968.

Sacks, Seymour and Robert Harris, "Determinants of State and Local Governmental Expenditures and Intergovernmental Flows of Funds," National Tax Journal, vol. 17, March 1964, pp. 73-85.

Samuelson, Paul A., "The Pure Theory of Public Expenditures," Review of Economics and Statistics, November 1954, pp. 387-389.

Steiner, Peter O., "The Public Sector and the Public Interest," The Analysis and Evaluation of Public Expenditures: the PPB System, Joint Economic Committee of Congress, Washington, D. C.: U.S. Government Printing Office, 1969.

Truman, David B., The Governmental Process, New York: Alfred A. Knopf, 1958.

Vidich, Arthur J. and Joseph Bensman, Small Town in Mass Society: Class, Power, and Religion in a Rural Community, Princeton: Princeton University Press, 1958.

Wildavsky, Aaron, The Politics of the Budget Process, Boston: Little, Brown, and Company, 1964.