THE ROLE OF SPECIAL DISTRICTS IN THE EFFICIENT PROVISION OF LOCAL PUBLIC SERVICES

by

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Dissertation submitted to the Graduate Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Economics

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July, 1979

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ACKNOWLEDGMENTS

First and foremost, I would like to thank my wife, Sandi, for putting up with me during my tenure as a graduate student. Without Sandi, life as a graduate student would have been considerably more difficult.

I owe much gratitude to my dissertation chairman, Professor Paul B. Downing, who has been a tremendous help to me as a constant source of good ideas, a model of scholarship, and a friend.

I am extremely grateful to Professor T. Nicolaus Tideman for taking on the duties of Co-Chairman of my dissertation committee. His influence in this capacity has enabled me to improve my writing style considerably.

Professors Roger L. Faith, Dwight R. Lee, Richard E. Wagner, and Carolyn L. Weaver helped to improve the quality of this dissertation with their helpful comments and ideas. For this I am thankful.

Last, but not least, I would like to thank the man who has come to be known as H. R. "Bob" Molyneaux of the Newman Library for assisting me in my research.

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Chapter 1

INTRODUCTION

1.1 General Introduction

The rising cost of public services and the unresponsiveness of local government to public service demands have been of much concern to economists and other social scientists for some time. There have been many attempts to isolate the causes of the "fiscal crisis of the cities," which is often defined as the simultaneous occurrence of higher public service costs and diminished tax bases.

One proposed solution to these problems has been governmental reorganization. Some proponents of the so-called "reform tradition," a school of thought which advocates a widespread consolidation of governmental units in metropolitan areas, have recommended an 80% reduction in the number of governmental units in metropolitan areas in the U.S.[1] Such consolidation, proponents claim, will lead to the elimination of duplication in the provision of public services, the attainment of economies of scale in service provision and a greater degree of hierarchical control over service provision in urban areas. Such control is seen by governmental reformists to induce a more efficient, less costly operation of local government. These ideas are promoted by a number of private and public organizations, such as the Advisory

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[1]Committee for Economic Development, Reshaping Government in Metropolitan Areas (New York: CEC, 1970).

Commission on Intergovernmental Relations (ACIR), the Committee for Economic Development (CED), the National Municipal League and other local groups.

A contrasting view, one advocated by public choice theorists and other economists, suggests that smaller and more fragmented governmental jurisdictions are more desirable. One generally cited reason for this is that public service demands can be more effectively articulated in smaller jurisdictions.[2] Also, the bureaucratic costs of consolidated urban government may come to outweigh the production efficiencies gained by governmental consolidation.

These issues will be examined in somewhat more detail in later sections; the purpose of this discussion is merely to depict the methodological nature of such previous works in the economics of local government so that a point of contrast can be made to the alternative approach to be offered in this dissertation (to be outlined presently). Previous research efforts have been aimed at deriving policy implications that call for governmental reorganization, a costly, time consuming, and in many cases, impossible task. Furthermore, even if governmental reorganization is in theory desirable, it has often proved to be politically infeasible. Therefore, governmental reorganization is not an attractive policy prescription for the urban fiscal crisis.

In light of the deficiencies of reorganization, an alternative approach is needed. The general approach offered in this study will

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[2]Charles Tiebout, "A Pure Theory of Local Government Expenditures," Journal of Political Economy 64 (October, 1956):416-24.

be to concentrate not on governmental reorganization as a means of attaining greater governmental efficiency, but rather on the institutional environment within which public services are provided, the incentives created thereby, and the subsequent effects on resource allocation in the local public sector. For example, urban public services can be provided by municipal departments, private firms, special districts or through a number of intergovernmental contractual arrangements. Each institutional form of service provision creates different patterns of strategic behavior on the part of the economic agents involved, and consequently on the production, distribution, and consumption efficiency of the provision of municipal services. These alternative institutional structures raise a number of interesting policy issues such as: Under what arrangement(s) can municipal services best be provided? Can competition be introduced, and if so is it advantageous to do so? What are the legal institutions regarding municipal service provision, and what effects do they have on the economic performance of local government? Finally, what are the budgetary consequences of alternative service arrangements and the legal and tax institutions within which they operate?[3]

The next section is decoted to a review of the methodological nature of a number of previous research efforts that have sought to improve the performance of local government. Such an exercise will

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[3]A number of articles that employ a similar methodology and seek to answer questions such as these are found in Elinor Ostrom, Editor, The Delivery of Services: Outcomes of Change (Beverly Hills: Sage, 1976).

provide a point of contrast for a more detailed description of and rationale for the alternative approach to be taken in the remainder of this study.

1.2 Survey of Alternative Approaches to the Study of Local Government Performance

In this section some aspects of the analytical framework within which the problem of local government performance has been approached by a number of economists will be outlined. In particular, a number of works that have been categorized under the name "optimal jurisdiction size" will be examined.[4]

In general, much of the research that has been done in the area of optimal jurisdiction size has focused on the specification of cost functions (for public service provision) and utility functions in order to derive conditions of optimality. One element common to all of these studies is that the researcher is assumed to have knowledge of the

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[4]For examples of this literature see: G. Tullock, "Federalism: Problems of Scale," Public Choice 6 (Spring 1969); Michael J. Boskin, "Local Government Tax and Product Competition and the Optimal Provision of Public Goods," Journal of Political Economy 81 (Jan./Feb. 1973):203-10; Mark V. Pauly, "Optimality, Public Goods and Local Governments: A General and Theoretical Analysis," Journal of Political Economy 78 (May/June 1970):572-85; Alan Williams, "The Optimal Provision of Public Goods in a System of Local Government," Journal of Political Economy 74 (Feb. 1966):19-33; Martin McGuire, "Group Segregation and Optimal Jurisdictions," Journal of Political Economy 82 (Jan./Feb. 1974): 112-32; Geoffrey Brennan, "The Optimal Provision of Public Goods: A Comment," Journal of Political Economy 77 (March/April 1969):237-41; Larry D. Singell, "Optimum City Size: Some Thoughts on Theory and Policy," Land Economics (August 1975):207-12.

appropriate production and preference relationships. He is then able to compute the optimality conditions.

A major criticism of this approach is that individuals can never in fact have knowledge of the mental processes of various economic agents.[5] Therefore, such optimal solutions cannot realistically be identified. Furthermore, even if such static optimality conditions could be identified, the dynamic nature of the world renders them irrelevant. What can be chosen by individuals are the rules and regulations regarding local governmental activity, i.e., specifications of and limitations on financial sources, rules regarding municipal incorporation, special district creation, the ability to enter into and to enforce intergovernmental contractual arrangements, etc. What is in fact chosen is the institutional framework within which the "local government industry" operates.[6] Therefore, the focus of this dissertation will be on a number of institutional arrangements by which local public services are provided (and financed) and the economic incentives thereby created. With this particular focus, economic theory will be used to develop a number of testable hypotheses regarding the effects of alternative service arrangements on the production, distribution and consumption efficiency in the local public sector. The particular

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[5]Frederick A. Hayek, Individualism and Economic Order (Chicago: Regnery, 1948).

[6]For a more in-depth exposition of this scenario see Richard E. Wagner, "Institutional Constraints and Local Community Formation," American Economic Review 66 (May 1976):110-15.

institutional structures of primary interest are special districts and public service contracting.

The next section will begin with an outline of some of the important aspects of the above-mentioned optimality approach to the economic analysis of local government. These aspects will be divided into the familiar supply and demand categories.[7]

Supply Side Considerations

It will be a major goal in future chapters to discern the effects of alternative service-producing arrangements on production and distribution efficiency in the local public sector. Therefore, it is important, at this point, to add some empirical content to the notion of efficiency in the production and distribution of urban public services. This will be done by reviewing some of the evidence regarding the existence of and reasons for economies (and diseconomies) of scale in the provision of a number of municipal services. Reference will also be made as to how some of this evidence has fit into discussions of optimal jurisdiction size.

Regression Analyses

Among the first to examine the determinants of the costs of local government services was Werner Hirsch.[8] The average unit cost function

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[7]For a good text book treatment of these categories see Robert L. Bish, The Public Economy of Metropolitan Areas (Chicago: Markham, 1971).

[8]Werner Z. Hirsch, The Economics of State and Local Government (New York: McGraw Hill, 1970), 147-98.

employed by Hirsch to estimate the unit cost of refuse collection, police departments and fire protection is of the following generalized form:

$$AUC = h(Q,A,I,F,S,T),$$

where AUC = average unit cost,

Q = quality parameter assigned to a particular (physical) unit of service,

I = inputs,

F = input prices,

S = service conditions affecting input requirements,

T = state of technology.

The actual cost functions (accounting costs, for current accounts only, i.e., operating and maintenance costs) estimated by Hirsch were of the following form.

Equation 1: Residential Refuse Collection, St. Louis 1960

$$X_1 = 6.16 + 0.000089X_2 - 0.000000000436X_2^2 + \underline{3.61X_3} + \underline{3.97X_4} - 0.000611X_5 - 1.87X_6 + \underline{3.43X_7}$$

where X_1 = 1960 average annual residential refuse collection and disposal cost per pickup in dollars,

X_2 = number of pickup units,

X_3 = weekly collection frequency,

X_4 = pickup location

X_5 = pickup density

X_6 = nature of contractual arrangement,

X_7 = type of financing.

The multiple correlation coefficient was .874. The underlined coefficients were found to be statistically significant at the .05 level of significance.

Equation 2: St. Louis Police Departments, 1955-'56

$$X_1 = 3.14 - 0.0000103X_2 - 0.00000000000351X_2^2 + 0.000550X_3 + 0.00000946X_4 + \underline{0.00315X_5} + \underline{0.00949X_6} - 0.00000212X_7 + 0.000946X_8 + 0.107X_9 + 0.000219X_{10}$$

where X_1 = per capita total costs of police protection,

X_2 = nighttime population,

X_3 = total miles of streets,

X_4 = nighttime population density per square mile,

X_5 = percentage of nonwhite population,

X_6 = percentage of nighttime population under 25,

X_7 = combined receipts of wholesale, retail and service establishments,

X_8 = number of wholesale, retail, and service establishments,

X_9 = index of scope and quality of police protection.

In this estimation the multiple correlation coefficient was .90. Once again, the underlined coefficients were found to be statistically significant at the .05 level of significance.

Equation 3: Fire Protection Services in St. Louis, 1955-'56

$$X_1 = 0.63 - 0.0000235X_2 + 0.000000000109X_2^2 - \underline{0.866X_3} + 0.00000170X_4 - 0.00206X_5 - \underline{0.0000108X_7} + \underline{1.889X_9} + 0.00231X_{10}$$

where X_1 = per capita total current costs for fire protection,

X_3 = area in square miles,

X_4 = density of dwelling units per square mile,

X_5 = 1950-'55 nighttime population increases

X_9 = index of scope and quality of fire protection.

In this equation X_2 is a proxy for quantity and X_9 is a quality proxy. X_3, X_4, and X_5 are indicative of service conditions affecting input requirements according to Hirsch. In this case there was an R^2 of .67.

With respect to the existence of economies of scale evidenced by these studies, Hirsch concludes that:

1. The average unit cost of "producing" fire protection is a U-shaped function, with a trough at about 110,000 population,
2. the average unit cost of providing police protection is "about horizontal," and
3. the average unit cost of refuse collection is approximately horizontal.[9]

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[9]Two further studies have found declining average unit costs in electricity supply. They are: Marc Nerlove, Returns to Scale in Electricity Supply (Stanford, Calif.: Stanford University Institute for Mathematical Studies in the Social Sciences, 1961); and J. Johnston, Statistical Cost Analysis (New York: McGraw Hill, 1960).

It is also important to note here that in each case the density variable was not significant. Several problems with work such as this have been enumerated by Downing and Gustely.[10] First, these estimates have relied upon budgetary data. There is no reason to believe that accounting costs are the same as real resource costs. Second, further problems arise because what are included as cost factors may also be determinants of demand. This adds difficulty to the interpretation of the regression coefficients. Third, intramarginal cost variations are ignored. For example, the land intensity of the housing structures in a number of communities may have an impact on service costs. A community comprised of structures that are not land intensive, i.e., high rise condominiums, may be substantially cheaper to serve with water, sewerage and refuse collection than a community comprised of single family homes on one or two acre lots; even though average population densities may be the same.

Finally, Hirsch's estimates are not actually estimates of cost functions. They determine average accounting costs (expenditures) rather than minimizing the resource cost of serving a population, holding constant product quantity and quality.

Engineering Studies

A number of important contributions to the study of the costs of public services have been made employing a methodology that first

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[10]Paul B. Downing and Richard D. Gustely, "The Public Service Costs of Alternative Development Patterns: A Review of The Evidence," in Paul B. Downing, Editor, Local Service Pricing Policies and Their Effect on Urban Spatial Structure (Vancouver: University of British Columbia Press, 1974).

determines the physical characteristics of a number of urban development patterns.[11] Estimates are then made of the physical requirements for serving each area, i.e., size and length of water pipe, etc. The next step is to estimate costs by assigning capital and operating costs according to these physical characteristics. The results of this type of analysis have shown that service costs for residential developments vary with both population density and location.[12] Downing, for example, has shown that annual capital and operating costs increase with decreases in residential density as well as with distance from the plant.[13]

In essence, studies such as these have added a dimension to the nature of public service costs not provided by regression analyses such as Hirsch's, namely, that many public service costs vary with density and location as well as with overall scale. In light of this, a number of estimates of differences in density and distance-related costs of providing certain public services will now be surveyed.

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[11]William L. Wheaton and Morton J. Schusshein, The Cost of Municipal Services in Residential Areas (Washington, D.C.: U.S. Government Printing Office, 1955).

[12]Besides Wheaton and Morton, see Walter Isaard and Robert Coughlin, Municipal Costs and Revenues (Wellesley, Mass.: Chandler-Davis, 1957). Their results, among other things, display declining average unit costs for the operation of sewage plants.

[13]Paul B. Downing, The Economics of Urban Sewage Disposal (New York: Praeger Press, 1969).

Density Related Costs of Public Services

The following density and distance-related capital and operating costs were calculated by Downing and Gustely for 1973 for a number of services and for nine different housing types (single family houses with densities of one, two, three and five units per acre; townhouses at ten units per acre; walk-up apartments at fifteen and thirty units per acre; and high-rise apartments at thirty and sixty units per acre, assuming 1000 unit neighborhoods).[14]

As indicated in Table 1.1 (page 13) capital costs for single-family homes in one acre lots are approximately ten times greater than for high-rise apartments. Operating costs are about three times greater for high-rise apartments. Very substantial differentials in capital costs are seen in the areas of water supply, storm drainage and sanitary sewers.

Differentials in operating costs due to density are substantially less than those of capital costs.

Distance-Related Costs of Public Services

Estimates of distance-related costs of public services are presented in Table 1.2. It is seen that water supply is the service most sensitive to distance, followed by sanitary and storm sewers.

It has been shown that there is some evidence that economies of scale may exist for a number of services, implying that increasing the

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[14] Ibid., pp. 82-3.

Table 1.1. The Cost of Providing Public Services by Property Type and Density: 1973

Summary

	Single Family Homes (1000 Units)				Multi-Family Homes (1000 Units				
					Townhouses	Walk-Up Apartments		High-Rise Apartments	
	1 unit/acre	2 units/acre	3 units/acre	5 units/acre	10 units/acre	15 units/acre	30 units/acre	30 units/acre	60 units/acre
Capital Cost									
Police	$ 113,852	$ 111,752	$ 109,652	$ 105,452	$ 104,852	$ 104,252	$ 103,652	$ 103,652	$ 103,052
Fire	119,918	108,368	96,818	73,718	52,974	52,974	52,974	52,974	65,474
Sanitation	29,220	27,620	25,220	23,140	21,244	18,140	17,380	15,796	14,820
Schools	5,353,582	5,353,582	5,353,582	5,353,582	4,538,155	4,538,155	4,538,155	1,646,167	1,646,167
Water Supply	7,529,720	3,833,744	2,563,857	1,739,362	1,163,154	855,900	485,304	566,792	334,777
Storm Drainage	4,835,868	2,420,383	1,595,857	1,068,046	710,649	462,420	231,274	284,522	117,684
Sanitary Sewerage	2,963,624	1,586,257	1,121,045	813,398	594,021	438,451	354,678	345,062	274,509
Total Capital Cost	$20,945,784	$13,441,706	$10,865,350	$9,176,693	$7,185,049	$6,470,292	$5,886,917	$3,027,495	$2,556,483
Yearly Capital Cost	1,828,203	1,167,283	939,488	788,740	617,607	555,001	494,079	264,018	222,446
Operating Cost									
Police	$ 69,817	$ 66,267	$ 62,717	$ 55,617	$ 52,067	$ 49,700	$ 46,150	$ 46,150	$ 42,600
Fire	135,711	116,011	96,311	56,911	41,589	41,589	41,589	54,722	54,722
Sanitation	35,287	33,142	30,315	27,780	25,469	21,686	20,760	18,850	17,640
Schools	1,168,258	1,168,258	1,168,258	1,168,258	988,526	988,526	988,526	269,598	269,598
Water Supply	31,821	31,821	31,821	31,821	30,103	30,103	30,103	25,538	25,538
Storm Drainage	-	-	-	-	-	-	-	-	-
Sanitary Sewerage	41,289	34,401	32,133	30,604	28,022	27,250	26,679	22,825	22,476
Yearly Operating Cost	$ 1,483,183	$ 1,449,900	$ 1,421,555	$1,370,991	$1,165,776	$1,158,854	$1,152,807	$ 437,683	$ 432,574
Total Annual Costs per Dwelling Unit	$ 3,311	$ 2,617	$ 2,361	$ 2,160	$ 1,783	$ 1,714	$ 1,647	$ 702	$ 655

Source: Paul B. Downing and Richard D. Gustely, "The Public Service Costs of Alternative Development Patterns: A Review of the Evidence," in Paul B. Downing (editor), Local Service Pricing Policies and Their Effect on Urban Spacial Structure (Vancouver, B.C.: University of British Columbia Press, 1977), Table 8.

Table 1.2. The Annual Cost of Providing Public Services per Mile Distance from Public Facility Site: 1973

	Capital or Operating Costs per Mile
Police	$ 438*
Fire	216*
Sanitation	3,360***
Schools	19,845***
Water Supply	21,560**
Storm Drainage	6,187**
Sanitary Sewers	12,179**
Total Cost	$68,498

*Includes only operating costs
**Includes only capital costs
***Includes both capital and operating costs

Source: Paul B. Downing and Richard D. Gustely, "The Public Service Costs of Alternative Development Patterns: A Review of the Evidence," in Paul B. Downing (editor), Local Service Pricing Policies and Their Effect on Urban Spatial Structure (Vancouver, B.C.: University of British Columbia Press, 1977), Table 9.

scale of plant can at times yield greater production efficiency, ceteris paribus. Furthermore, density and distance-related costs are seen to be quite important determinants of the distribution efficiency in the provision of a number of services.[15] Therefore, it can be expected that the sources of any scale economies in the provision of a number of services will be overall plant scale as well as increased population density. It must be noted, however, that whether increased density can, in certain cases, increase costs due to increased service demands remains an unresolved issue. Diseconomies of scale are also seen to result from locational costs as well as from declining population densities.

While economies of scale are the one item most studied in many works pertaining to public sector supply, they may not be particularly relevant to the problem of the efficient organization of local governmental units. It is not reasonable to base one's conception of an optimally sized jurisdiction, or a "most efficiently organized" governmental unit on maximizing scale economies, because it is not necessary that the consumers of a particular service be residents of the governmental unit that organizes the production and distribution of the service. This is not the case, for example, when municipalities can contract for services produced by other governmental units. In

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[15]A further piece of evidence of the effects of density on the distribution costs of electricity is found in Fred J. Wells, "Customer Density and Electrical Distribution Costs"; in Downing, Pricing Policies, pp. 87-118, where he concludes that distribution costs are strongly affected by customer density, i.e., number of customers per mile of distribution line.

these instances, discussions of optimal jurisdiction sizes based solely on the minimization of average production costs become irrelevant.

Consider the simple geometric example in Figure 1.1. In this diagram, C = cost of providing a particular public good or service, and n = number of individuals in the "collective consumption unit," or jurisdiction. Assuming for simplicity that there are no interjurisdictional externalities, an optimally sized jurisdiction based solely on the minimization of (average) production costs is characterized by the minimum point on the above curve, corresponding to the (optimal) jurisdiction size of n^*. This framework further implies that if C/n steadily declined, there should be only one (national) jurisdiction producing the good.[16] Each particular public good or service is seen to correspond to some optimally sized collective consumption unit, as in the hypothetical (geometric) example in Figure 1.2, where C_1, C_2, and C_3 are the average production cost curves of goods 1, 2, and 3, respectively, which all attain minimum points at different jurisdiction sizes. It is doubtful that the assignment of each activity to the "optimal" political unit, a solution implied by the optimality literature, would indeed be (socially) optimal. One reason is that the smaller jurisdictions can often simply contract for the services provided most efficiently by units of government that may be able to exhaust economies of scale in the production of that particular good or service. If a number of producers of a particular service exist,

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[16] See Tullock, "Federalism."

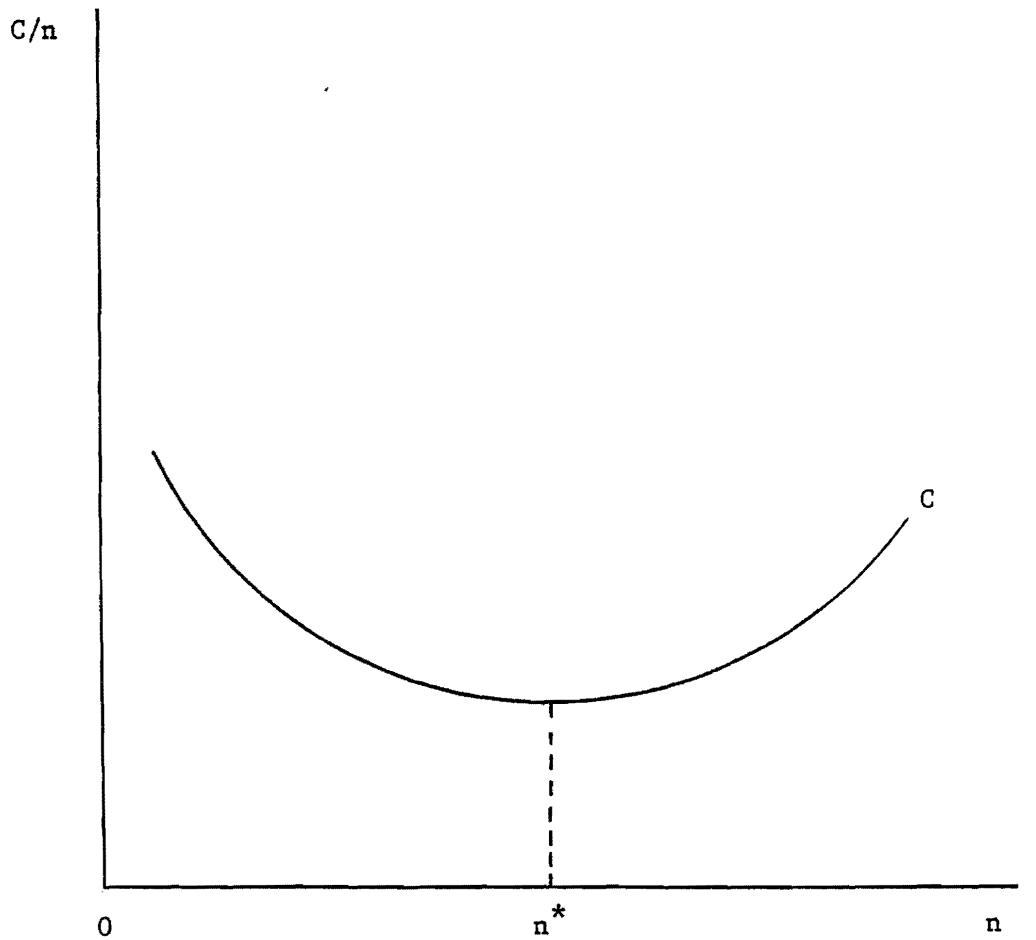

Figure 1.1. Cost of Service Provision as a Function of Population

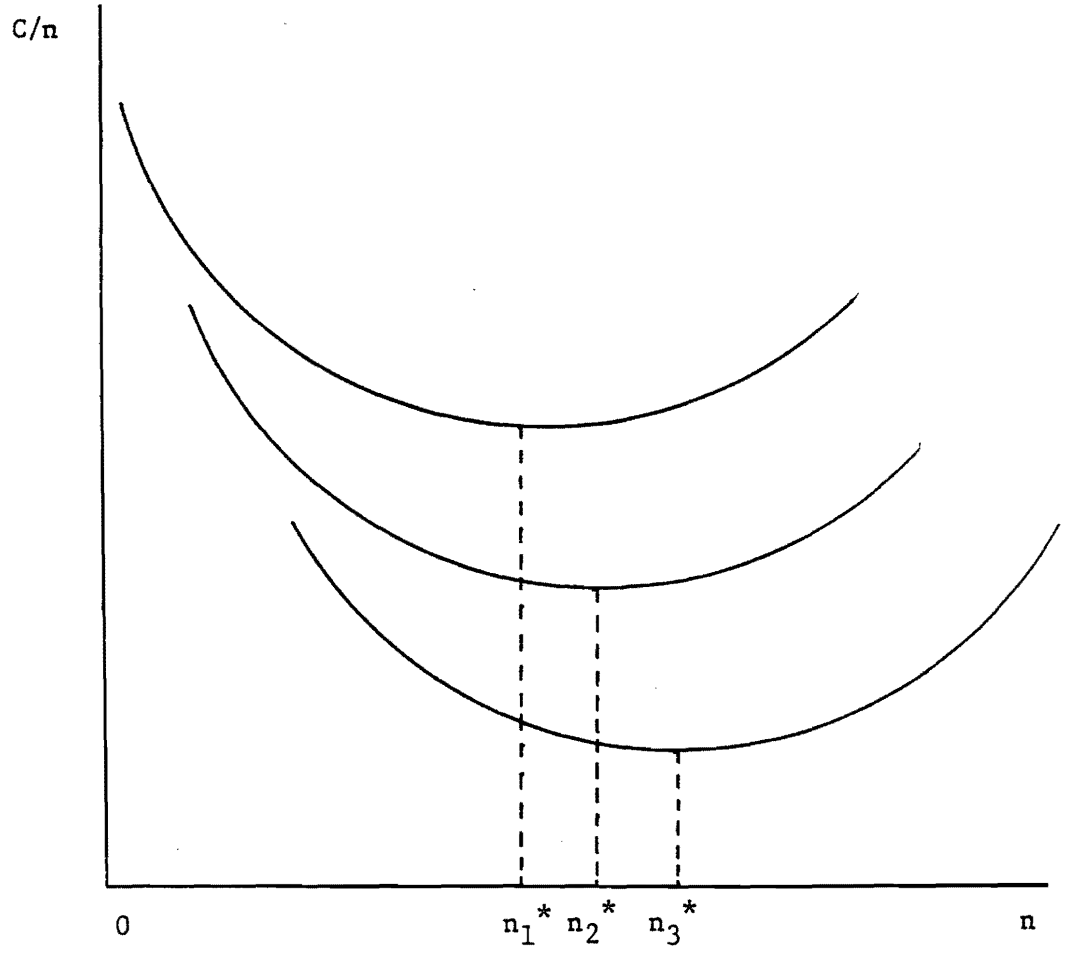

Figure 1.2. Optimal Jurisdiction Sizes: Production Cost Considerations

all of which bid to provide the service to municipalities, the municipalities that contract to purchase services can be assured of receiving the benefits of scale economies. The virtue of competitive bidding has been pointed out by Demsetz, among others.[17] Note that this advantage would not be present if the production of a particular service were merely assigned to one "producer" that was deemed most capable of minimizing average production costs.[18]

In essence, the point to be made here is this: for a goal of increasing social welfare, optimally sized jurisdictions based solely on the minimization of average production costs are an inferior "efficiency criterion" if the production unit can be separated from the consumption unit.[19]

A second element of the supply-side analysis of the optimality models concerns the externality or spillover problems relevant to municipal service provision. Such spill-ins or spill-outs occur when the number of individuals receiving the benefits from the provision of public goods or services is different from the number belonging to the service-producing jurisdiction. Residents from outside a particular jurisdiction who enjoy the benefits of that jurisdiction's public park

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[17]Harold Demsetz, "Why Regulate Utilities?" Journal of Law and Economics 11 (April 1968):55-66.

[18]As is the case in the "traditional" economic rationale for regulating a natural monopoly.

[19]See Bish, The Public Economy. Note also that increasing jurisdiction size yields scale economies in production and diseconomies in distribution, implying that the minimum average total cost will be at a lower level of output than if one considered only production costs.

are one example. The existence of such externalities has at times led to recommendations of optimally sized jurisdictions that can internalize all externalities. These proposals have been challenged, however, for a number of reasons.[20] First, the internalization of all externalities would require governmental boundaries too large to be receptive to individual preferences. For example, would the whole highway system have to be organized by one central government? This could of course be avoided if intergovernmental cooperation is permitted, as is in fact the case with respect to the highway system.

Next, consider some of the demand-side aspects of urban public service provision, as offered by the research agendas presented by a number of previous researchers.

Demand-Side Considerations

What is the most efficient sized governmental unit for the articulation of public service demands? This question has been answered in the following way.

Since public goods and services are provided through political markets on a majority rule basis and since there is political competition,[21] the level of provision can be expected to meet the demand of the median voter. Therefore, an individual's (public goods)

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[20]Tullock, "Federalism."

[21]Duncan Black, The Theory of Committees and Elections (Cambridge: 1958).

preferences will be satisfied if they are identical to those of the median voter.

There are two widely discussed ways in which individuals can influence their own levels of consumption of public goods and services. One way is that the individual can migrate to a community where the public goods mix is closer to his own preferences.[22] This view of "consumption efficiency" is presented in Figure 1.3. In this figure the quantity of a public good or service provided by a governmental jurisdiction is measured along the abscissa. Along the ordinate is measured the (tax) price of the good or service, which for simplicity is assumed to be equal for all consumers. The demands of these individuals or homogeneous groups of individuals within the community, A, B, and C, are depicted by the curves D_A, D_B, and D_C, respectively. Since the expectable output of the public good or service is that corresponding to the preferences of the median voter, Q_B, a situation exists in which individual C is willing to pay his share of the costs to obtain a greater amount of the good, and individual A does not want to pay for the marginal output given his tax share. Therefore, three different communities, each comprised of individuals with homogeneous tastes would be conducive to consumption efficiency. Group A would enter a community that offered the amount Q_A of the good, and group C would want to have access to the amount Q_C. The existence of such comparatively small, homogeneous jurisdictions would

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[22]Tiebout, "Pure Theory."

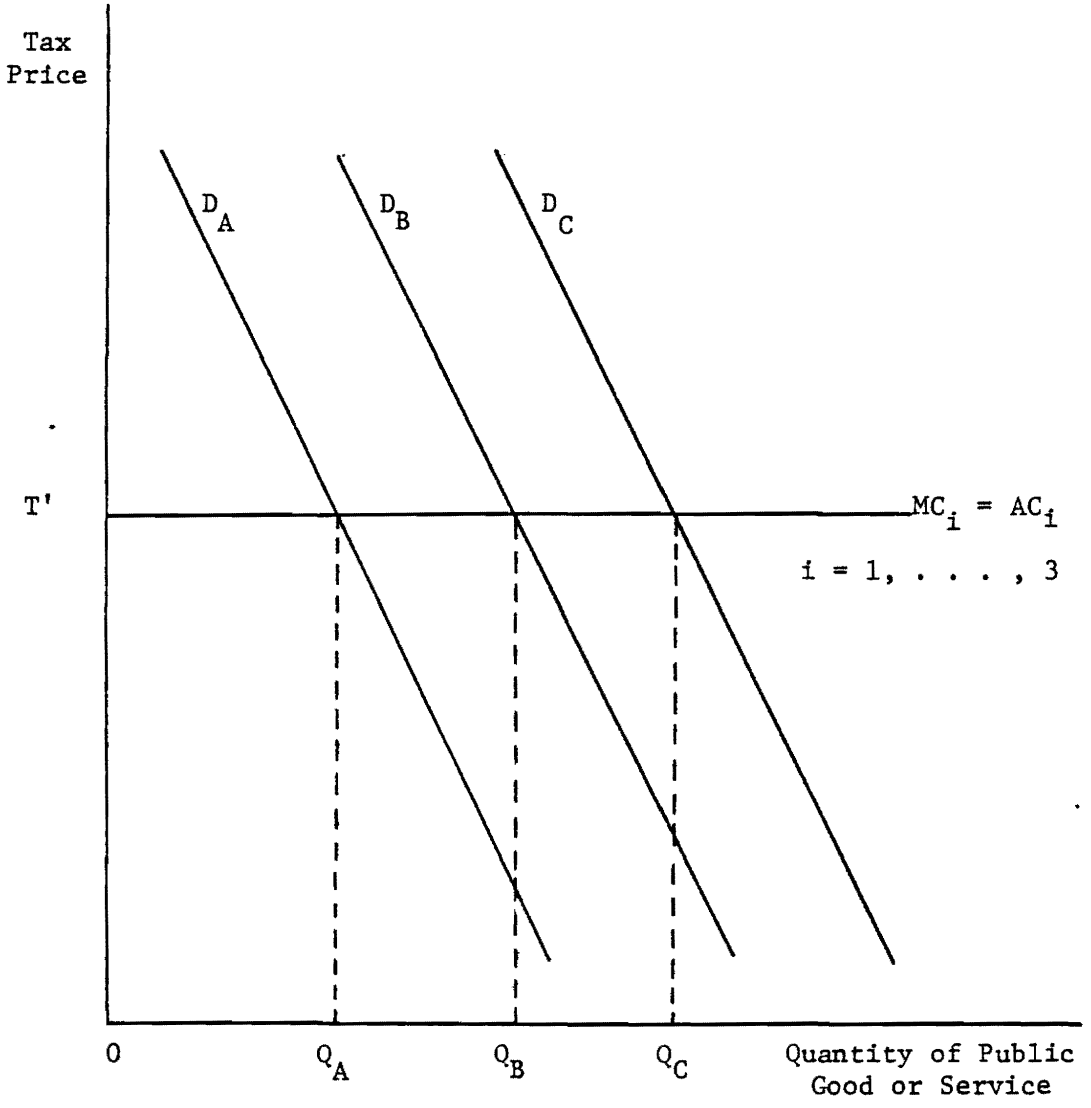

Figure 1.3. Consumption Efficiency

also yield an advantage in terms of a lower level of social interaction costs.[23]

Empirical measures of the welfare losses attributable to the collective provision of public (or private) goods have been found to be quite substantial. Bradford and Oates have estimated that moving from a large number of "producers" of public education to a consolidated provision would yield a welfare loss in excess of 30 percent of total public education expenditures in the state of New Jersey.[24]

The second way in which individuals can influence their own levels of consumption of public goods and services is by voicing approval or disapproval, individually or collectively, through the political process.[25] It has been asserted that small, politically self-contained jurisdictions are more successful in achieving desired quantities and qualities of public services.[26] One reason for this is that smaller jurisdictions decrease the level of negative political externalities

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[23]See J. M. Buchanan and G. Tullock, The Calculus of Consent (Ann Arbor: University of Michigan Press, 1962).

[24]David F. Bradford and Wallace E. Oates, "Suburban Exploitation of the Central Cities and Governmental Structure," in H. Hochman and G. E. Peterson, Editors, Redistribution Through Public Choice (New York: Columbia University Press, 1974):43-90.

[25]For an excellent treatment of the "voice option," see Albert O. Hirschman, Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States (Cambridge, Mass.: Harvard University Press, 1970).

[26]See Dennis Young, "Consolidation or Diversity: Choices in Structure of Urban Governance," American Economic Review 66 (May 1976): 378-85.

individuals can impose on one another. Another reason is that in a smaller number setting, each individual has a higher probability of having an impact on policy outcomes such as service levels and types through his political participation.

Supply and Demand Considerations: Some Concluding Points

A number of shortcomings in the optimality literature have been mentioned. These inadequacies will be briefly reviewed and some alternatives will be suggested.

It has been posited that comparison of average production costs is an inferior means of assessing the "optimality" of governmental jurisdictions, for a number of reasons. One reason is that such an efficiency criterion separates the production units from (service) consumption units, ignoring the possible benefits of public service contracting. Also, the size of governmental unit most conducive to the exhaustion of scale economies may be quite inefficient in terms of demand articulation. A third reason is that in promoting the consolidation of local government units, comparison of average production costs in some instances ignores the fact that there may be substantial costs to increasing the hierarchical control of service provision.[27]

One could maintain, of course, as others have, that the optimal degree of governmental fragmentation in a metropolitan area would be

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[27]See William Niskanan, "Bureaucrats and Politicians," Journal of Law and Economics 18 (December 1975); and Oliver Williamson, "Hierarchical Control and Optimum Firm Size," Journal of Political Economy 74 (April 1967):123-38.

determined by equating the marginal benefits of increased size (a positive function of the exhaustion of scale economies) and the corresponding marginal costs (due to decreased articulation of demands, bureaucratic costs). However, as mentioned in section 1.1, it is very unlikely that such an optimal solution could ever in fact be calculated in the absence of an omniscient, mind-reading planner. Furthermore, secular change, in terms of changing technologies, resources, tastes and preferences, and demands for public goods and services, implies that what is needed to increase social welfare is not a normative criterion of what might be deemed efficient at a particular point in time, but rather a set of institutions that enable individuals to express their (changing) preferences for public output. For example, if a group of individuals decreases their demand for one public good and increases their demand for another, an environment in which governmental units (such as special districts) are easily created would be more conducive to the articulation of these demands than if the local public sector were more centralized. Therefore, in future chapters, a primary goal will be to depict a set of institutions by which individuals can most effectively articulate their demands for local public output. Also of importance will be the existence of institutions conducive to production and distribution efficiency in providing local public services.

1.3 Outline of Subsequent Chapters

In the search for a mode of analysis that can serve as a superior alternative to the optimality literature, efficiency in resource allocation is not relegated to secondary importance. In fact, quite the opposite is true. As Buchanan has said:

> The motivation for individuals to engage in trade, the source of the propensity, is surely that of "efficiency," defined in the personal sense of moving from less preferred to more preferred positions, and doing so under mutually acceptable terms. An "inefficient" institution, one that produces largely "inefficient" results, cannot, by the nature of man, survive until and unless coercion is introduced to prevent the emergence of alternative arrangements.[28]

As mentioned above, the criteria to be used to evaluate the relative efficiency of the various institutional arrangements for providing municipal services (i.e., special districts and contracting) in the remainder of this study will be as follows:

1. Production efficiency--the ability of service-producing units to attain economies of scale. It is important to note that scale economies are not technically attainable in many cases.

2. Distributional efficiency--cost effectiveness in service distribution, which depends largely upon population density, locational factors (i.e., distance from plant), capital costs and the means of financing such costs, i.e., bonded indebtedness, property taxation, intergovernmental revenues.

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[28]J. M. Buchanan, "What Should Economists Do?" Southern Economic Journal (Jan. 1964):213-22.

3. Consumption efficiency--the opportunity for individuals to have access to public goods and services that closely match their preferences. Of importance here is the exit option, as discussed by Tiebout (see the discussion pertaining to Figure 1.3), as well as the "voice option." That is, the ability of individuals to effectively voice their preferences for the public goods and service bundles provided through political markets is an essential element of consumption efficiency, and is a negative function of the level of decision making costs and a positive function of the individual's probability of having an effect on local electoral policy outcomes by voting or "voicing" his preferences.[29] Both of these elements are negative functions of the size of the collective consumption group to which public goods are provided. In this study, special districts will be viewed as collective consumption and production groups, since districts are formed with the intent of organizing the production and distribution of public goods and services to be consumed by their inhabitants.

4. Public managerial efficiency--the degree to which the managers of special district enterprises strive to attain a locational efficiency via cost minimization, to maximize the long run net present value of the "public firm," and to be responsive to local consumer demands.

Now, the question to be posed is: how can service provision via special districts promote the attainment of these often-conflicting goals?

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[29]Preferences are also "voiced" with campaign contributions.

First, special districts provide a means of collective provision of goods and services that might otherwise not be forthcoming via private provision. For example, the main reason for the formation of the Arcade Water District in Sacramento County, California, was that the existing private producer was not willing and/or able to invest an amount of capital that would produce facilities that would ensure the community that shortages would be avoided in times of drought.[30] It must be granted most shortages can be eliminated by raising the per unit price paid for a service such as water supply, but Sacramento residents, dissatisfied with that particular prospect, formed the Arcade Water District, buying out the private producer. Their purpose was to construct a plant size sufficient to supply water to community residents at a lower cost than what was feasible by the existing private producer, given the scale of his operation.

Districts are also a mechanism by which free rider problems in the provision of local public goods and services can be overcome. For example, consider the hypothetical situation where a local governmental unit provides mosquito abatement services that cover five different communities, but only four of them pay, as the non-paying community decides to free ride. The establishment of a mosquito abatement district is then seen as a potential means of eliminating this free rider problem as its (servicing and taxing) jurisdiction can encompass all five communities.

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[30]Robert J. Hawkins, Jr., Self Government by District (Stanford: Hoover Institution Press, 1976):17.

A further advantage provided by special districts is that they can create more effective geographical boundaries than general purpose units of government. For example, a flood control district is capable of providing its service to all those residing in a particular flood plain, regardless of how political boundaries may divide that plain. Thus the provision of flood control can be organized to meet the needs of all those residing in a particular flood plain, rather than being provided only to those within the area belonging to one individual political jurisdiction or general purpose unit of government.

Districts can also be especially efficient in articulating consumer demands for public goods and services as a result of the flexibility in the (legislated) geographic size of a particular special district. For example, a small, homogeneous, rural community that is dissatisfied with the county government's willingness to provide them with, say, recreational park services can form a recreation district. One reason that county officials may be unwilling to allocate financial resources to such an endeavor is that in seeking to be reelected, the county politician might rationally choose to expend the public budget only in areas where he can reap greater political returns (votes). Thus with the formation of a recreation district, in this example, the members of the rural community are made better off as they can attain the desired level of service, and the county government is satisfied as it does not have to "sacrifice" resources on projects that are of little political value. The ability to create special districts then becomes a valuable tool in the articulation of consumer demands for

public goods. Since local general purpose governmental public decisions are most often made on a majority rule basis, implying that the (public goods) preferences of the median voter are met, the creation of special districts provides a mechanism by which more diverse demands can be met. Districts then increase the options made available to the consumer-taxpayer, a result quite analogous to one of the main advantages of competitive markets for privately supplied goods, and one that is not often provided by multipurpose units of local government.

One further very significant advantage of special district provision of local goods and services stems from the degree of publicness characteristic of many goods provided by districts. Namely, many goods and services provided by special districts, such as water supply, sewage disposal, electricity and transit, are quite similar to private goods.

Districts make wide use of user fees in financing such services, as will be seen in Chapter 2. The advantage of this is that efficient user fees pricing by special districts becomes a means of ensuring a more efficient allocation of public resources.[31] Those who benefit from the provision of a particular service are then the ones who pay for it, unlike the case of general fund financing of local public goods and services. Also, introducing efficiently set prices provides a basis for determining efficient quantity and quality levels of public

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[31]Selma Mushkin, Editor, Public Prices for Public Products Washington, D.C.: The Urban Institute, 1972).

services. Paying for public services enables consumer-taxpayers to obtain the quantity that they desire. Those who prefer greater quantities of a particular service can have them if they are willing to pay for them. In essence, then, the creation of special districts and their use of public prices are conducive to the enhancement of efficiency in resource allocation in the local public sector, as the prices paid for some public services can be set equal to the costs of providing those services.

One final note here is that special districts also have the potential to attain production efficiency by exhausting scale economies in the provision of a particular service. This may not be possible with private provision or provision by a multipurpose governmental unit.

There are also a number of efficiency advantages gained through intergovernmental contracting for municipal services between a special district and another (purchasing) unit of government. One advantage is that the ability of a jurisdiction to obtain services through contractual arrangements injects competition into the local governmental environment. The residents of a community may then have an alternative to supply by local governmental monopoly bureaus. Also, if the district can attain economies of scale in the production and distribution of a particular service, the contracting community can attain the benefits of large-scale production and still maintain a degree of control over the level of service provided and the amount of expenditure thereon--especially if the contracted-for good is excludable. Once again, the fact that many of the goods and services provided by

districts are in fact excludable yields further advantages. Namely, the contracting community that wishes to purchase, say, irrigation from an irrigation district can purchase an amount that closely matches the community's preferences, given prices and incomes. Thus the community can attain irrigation services in the desired quantity, at the desired time(s) of the year, and perhaps pay a lower price for such services due to the scale economies obtained by the district. The alternative of constructing separate irrigation facilities could, of course, prove much more costly as the community may be a great distance from the water source, thus requiring a greater capital investment. Also, if the community is one that only purchases irrigation water during periods of peak demand, it foregoes the expense of waste stemming from idle capacity during non-peak periods.

In essence, intergovernmental contracting between a service-producing district and another unit of government is a means of exhausting mutually advantageous gains from trade in the local government market. That is, the district benefits as its net revenues are supplemented by the purchasing activities of contracting communities. Contracting communities can benefit in the ways mentioned above--the possibility of articulating service demands more effectively as well as attaining cheaper services than what could be provided by "in-house" production.

In view of the ability of special districts to induce a more efficient allocation of resources in the local public sector as described here, the general goal throughout the remainder of this dissertation

will be to discern what incentives to attain such efficiency norms are provided by existing institutions. With this overall goal in mind the remainder of this study will be organized as follows.

Chapter 2 will serve to familiarize the reader with special districts and public service contracting as mechanisms by which local public goods and services are provided. This information will supplement, in subsequent chapters, the reader's understanding of the discussions of these institutions. The first part of the chapter describes why and how special districts have evolved as a mode of service provision, what types of districts exist, what their functional responsibilities are, how they are financed and controlled and their relation to other levels of government. The second part of the chapter discusses, in more detail, the efficiency advantages of contracting, who the economic agents involved are, how extensively contracting is used as a mode of service provision and what types of services are most often contracted for. The final section of Chapter 2 is a somewhat more detailed description of how, theoretically, these institutions can lead to production and consumption efficiency in the provision of local public goods and services, assuming that local political decision makers are perfectly benevolent and act to maximize some ideal social welfare function, however defined.

In Chapter 3 local political decision makers are not viewed as being benevolent, but rather as self-interested, utility maximizing individuals. A major question to be posed is: what incentives do existing institutions provide to local political decision makers to

1) seek alternative, and more efficient means of service provision through contracting (i.e., with a special district), and

2) to enforce public service contracts, once entered into.[32]

The nonenforcement of such contracts is seen as an attenuation of the rights of contracting communities and thus serves as a hindrance to the exhaustion of mutually advantageous gains from trade by contracting. The nature of existing enforcement institutions will be examined to determine the incentives they provide with respect to the execution of local public service contracts.

Next, given the above-cited efficiency advantages of service provision by special districts, Chapter 4 starts out with a number of arguments put forth by private and public organizations against special district service provision. Such arguments, promoted largely by local public managers whose self interest is served by these arguments, have led to the alteration of laws in a number of states that have restricted the growth of special districts. Economic theory will be used to deduce the alternative hypothesis that such laws have given existing local governmental units monopoly power in the local governmental industry and have not necessarily provided a means of promoting a "more

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[32]The contracting to be discussed is of an intergovernmental nature, between a special district provider and another unit of local government. However, as will be seen, the analysis can be applied to intergovernmental contracting between any two types of local governmental jurisdictions.

orderly and less costly organization of local government," as has been claimed.

Chapter 5 will present evidence that will confirm or contradict the hypotheses generated in Chapter 4.

Chapter 6 is devoted to summaries, conclusions, policy proposals and an agenda for future research.

Chapter 2

THE INSTITUTIONAL STRUCTURE OF SPECIAL DISTRICTS

2.1 Introduction

The task of this chapter is first to familiarize the reader with the institutional framework surrounding special districts and public service contracting. Then, given these institutions, the potential ability of special districts to attain economic efficiency in the provision of local public goods and services will be examined. In discussing these theoretical efficiency norms it is assumed that local politicians act in a benevolent manner, maximizing the social welfare (however defined) of their constituents. It is also assumed that there are no legal barriers to the creation of special districts. The reason for making these assumptions is that in the following chapters these assumptions will be relaxed, to investigate

1. what incentives are provided to local political decision-makers by existing institutions to attain such efficiency in the provision of local public services, and

2. what institutional changes (if any) can be made that create greater incentives to approach these efficiency norms, given that such changes are Pareto efficient?

2.2 Special Districts Defined

Independent special districts are limited-purpose governmental units which exist as separate corporate entities and have fiscal and administrative independence from general purpose governments. Fiscal independence means that a special district can determine its budget without review by other local officials or governments, levy taxes for its support, collect charges for its services or issue debt without review by another local government.[1] Administrative independence, according to the Census Bureau, implies that a public agency such as a special district has a popularly elected governing body representing two or more State or local governments and performs functions that are essentially different than those of its creating governments.[2] Due to the uniqueness of school districts, subsequent discussion concerns only non-school districts.

Many special districts are, by law, agencies subordinate to a parent governmental unit (or units). Such entities will be denoted here as dependent special districts, which are defined to posess one or more of the following characteristics:

1. Agency officers are appointed by the chief executive and/or governing body of the parent government(s).

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[1] U.S. Department of Commerce, Bureau of the Census, Census of Governments, Governmental Units in 1972.

[2] Ibid.

2. The agency controls facilities that supplement or take the place of facilities ordinarily provided by the creating government(s).

3. There exist provisions that agency properties and responsibilities shall revert to the creating government after the agency's debt has been repaid.

4. Agency plans must be approved by the creating government(s).

5. The parent government(s) specify the type and location of facilities that the agency is to construct and maintain.[3]

2.3 Reasons for Special District Creation

Special districts are created for a variety of reasons. As mentioned in Chapter 1, they provide a means of overcoming free rider problems in the provision of local public services and can generally serve as a remedy to market failure in providing adequate amounts of services. That is, districts are a way of collectively providing local public goods and services in desired quantities and qualities that may not be forthcoming with private supply. This claim is evidenced by the example of the Arcade Water District given in Chapter 1.

Among the other major reasons for special district creation discussed briefly above are the possible attainment of economies of scale in production and distribution and geographic flexibility. Such flexibility is advantageous in that districts are able to conform to

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[3]U.S. Department of Commerce, Bureau of the Census, Census of Governments: 1967, Vol, 1, p. 13.

the service boundaries of a certain function, such as is the case with a port authority, flood control district or irrigation district where the development of a natural or man-made asset is involved.

Perhaps the most widely cited reason for the creation of special districts is "fiscal self-sufficiency." That is, districts are often formed (at least partially) to avoid local property tax and debt limitations which, in most states, do not apply to special districts. Concurrent financing of districts then takes place largely through the sale of nonguaranteed revenue bonds amortized by the extensive use of user charges for district services. In this way, districts are fiscally self-sufficient in that their expenditures are financed largely through bonds that place no financial burden on the general public, as they are not backed by local governmental resources (as is the case with general obligation bonds) but rather the user fee revenues that stem from the proposed project.

Besides the fact that special districts have greater abilities to issue long-term debt to finance capital investment than do general purpose units of government, there is also considerable encouragement of special district creation by the Federal government through Federal grant programs. Among the Federal grant programs aimed at special districts are the following:

--Mass Transportation Loans established by the Housing Act of 1961

--Public Housing established by the U.S. Housing Act of 1937

--Open Space Land Acquisition authorized under Title VII of the Housing Act of 1961 (42 U.S.C.A. 1492)

--Public Facility Loans authorized by Title II of the Housing Amendments of 1955 (42 U.S.C.A. 1491-96)

--Advances for Public Works Planning established by Section 702 of the Housing Act of 1954 (40 U.S.C.A. 642)

--Hospital and Medical Facilities Construction established by the Hospital Survey and Construction Act of 1946 (42 U.S.C.A. 291)

--Waste Treatment Works authorized under section 6 of the Federal Water Pollution Control Act of 1956 (33 U.S.C.A. 466)

--Land Reclamation authorized under the Federal reclamation laws

--Small Watershed Protection established by the Watershed Protection and Flood Prevention Act (16 US.C.A. 371).

2.4 Methods of Special District Incorporation

There are several ways in which districts become legally incorporated, including authorization by general law, special acts, state mandate or court action. Table 2.1 shows the number of districts created by general or special acts in different regions of the U.S. In eleven states, Vermont, Ohio, Indiana, South Dakota, Nebraska, Oklahoma, Montana, Idaho, Wyoming, Utah and Hawaii, districts are authorized exclusively by general statutes. In other states, such as Maine, Massachusetts, and Florida, special acts of the legislature create the majority of special districts.[4]

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[4]ACIR, Regional Decision Making: New Strategies for Substate Districts (Washington, D.C.: ACIR, 1974):24.

Table 2.1. Number of Special Districts Created by Special and General Statutes: 1962 and 1967

Region	General Laws			Special Laws		
	1967	1962	% Change	1967	1962	% Change
United States	20,558	17,700	16.1	691	623	10.9
Northeast	3,377	3,056	10.5	347	343	1.2
North Central	6,986	6,087	14.8	18	21	-14.3
South	4,238	3,264	29.8	277	222	24.8
West	5,957	5,293	12.5	49	37	32.4

Source: U.S. Bureau of the Census, Census of Governments, Vol. I, 1962 and 1967.

A somewhat more detailed survey of the procedures for establishing and terminating special districts is provided in Table 2.2, where it can be seen that individuals have the right to legally establish special districts through petition, hearings and referenda. Slightly more than a third of the SMSAs in the sample have provisions for district termination.

2.5 Special District Growth

The number of special districts in regions of the U.S., in 1952, 1962, 1967 and 1972, is shown in Table 2.3. Steady growth of special districts over the past several decades can be observed.

A number of public reports have called for mechanisms to regulate the growth of special districts.[5] As the economic effects of such regulations are the topic of Chapters 4 and 5, it will suffice for now to note that five states, California, Nevada, New Mexico, Oregon and Washington, have enacted legislation creating "Local Boundary Commissions" to control the growth of special districts. In essence, the creation of such agencies denotes a transfer of the rights to district formation from communities of individuals to agency bureaucrats who staff the boundary commissions. Generally speaking, these commissions are authorized to control the creation, consolidation, annexation and dissolution of special districts. Evidence supports

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[5]ACIR, The Problem of Special Districts in American Government (Washington, D.C.: ACIR, 1964):74-5.

Table 2.2. Procedures for Establishing and Terminating Areawide Selected Special Districts in the 72 Largest SMSAs: 1970

Region	Petition	Hearing	State	Referenda	Court	Termination
Northeast	3	2	2	1	0	2
North Central	17	11	6	10	5	7
South	14	7	9	11	3	9
West	12	7	2	13	0	6
Total	46	27	19	35	8	24

Source: ACIR Tabulation.

Table 2.3. Number of Special Districts: 1972, 1967, 1962, and 1952

Region	1972	1967	1967-72 5-Year Change	1962	1962-72 10-Year Change	1952	1952-72 20-Year Change
United States	23,886	21,265	12.3%	18,322	30.4%	12,339	93.6%
Northeast	3,937	3,724	5.7	3,399	15.8	1,789	120.1
North Central	8,024	7,020	14.3	6,028	33.1	4.622	73.6
South	5,525	4,515	22.4	3,485	58.5	2,288	141.5
West	6,400	6,006	6.6	5,330	20.1	3,640	75.8

Source: U.S. Bureau of the Census, 1972, 1967, Census of Governments, Vol. 1.

the premise that these agencies have been successful in curtailing district growth, as shown in Table 2.4. As shown there, in each state with a boundary commission the rate of growth of district creation has been curtailed, with Oregon and California experiencing negative rates of growth in the period from 1967 to 1972.

2.6 Functional Responsibilities of Special Districts

The Census Bureau has grouped special districts into single and multiple-function categories, as shown in Table 2.5. As indicated, there were substantial increases in nearly all types of districts between 1962 and 1972. The greatest growth was experienced by sewer and water supply districts (355.8%) followed by transit districts (230%) and housing and urban renewal (106.6%). Fire protection districts were the most numerous in 1962, 1967 and 1972.

The types of goods and services provided by districts range from goods generally considered to posess a comparatively high degree of publicness, such as fire protection, flood control and recreation, to goods that are much closer to being designated as private, excludable goods. Falling into this latter category are such services as water supply, electricity, gas supply, transit and sewage disposal.

2.7 Financing of Special Districts

Special districts are financed primarily through the sale of non-guaranteed revenue bonds amortized by user charges and/or special

Table 2.4. States Enacting Legislation to Control Special Districts and Growth of SMSA Special Districts: 1962, 1967, 1972

State	1962	1967	1962-67 5-Year % Increase	1972	1967-72 5-Year % Increase
California	894	1,300	45	1,279	-2
Nevada	19	24	26	26	8
New Mexico	7	4	-43	4	0
Oregon	247	350	42	257	-27
Washington	289	331	15	365	10

Source: U.S. Bureau of the Census, Census of Governments: 1967 and 1972, Vol. 1.

Table 2.5. Types of Special Districts: 1962, 1967, 1972

Districts	Number of Districts 1972	1967	1962	% Change 1967-72	% Change 1962-67
Single Function Districts					
Cemeteries	1,496	1,397	1,283	7.1	16.6
School Buildings	1,085	956	915	13.5	18.6
Fire Protection	3,872	3,665	3,229	5.6	19.6
Highways	698	774	786	-9.8	-11.2
Health	257	234	231	9.8	11.3
Hospitals	655	537	418	22.0	56.7
Housing and Urban Renewal	2,270	1,565	1,099	45.0	106.6
Libraries	498	410	349	21.5	14.0
Drainage	2,192	2,193	2,240	-0.0	-2.1
Flood Control	677	662	500	2.3	35.4
Irrigation and Water Conservation	966	904	781	6.9	23.7
Soil Conservation	2,564	2,571	2,461	0.3	4.2
Other Natural Resources	231	209	309	10.5	-25.2
Parks and Recreation	749	613	488	22.2	53.5
Sewers	1,406	1,233	937	14.0	50.1
Water Supply	2,233	2,140	1,502	8.6	54.7
Electric Power	74	75	76	-1.3	-2.6
Gas Supply	48	37	30	29.7	60.0
Transit	33	14	10	135.7	230.0
Other	889	622	488	42.9	82.2
Multiple-Function Districts					
Sewer and Water Supply	629	298	138	111.1	355.8
Natural Resource and Water Supply	67	45	56	48.9	19.6
Other	207	110	120	88.2	72.5

Source: U.S. Bureau of the Census, Census of Governments, 1967 and 1972.

assessments. Unlike general purpose units of government, which make extensive use of (guaranteed) general obligation bonds backed by the total resources of the municipality, special districts, by their use of revenue bonds, place no financial obligation on the general public. Revenue bonds are backed by the revenues expected to accrue through the proposed project. Furthermore once created, few special districts are granted explicit taxing powers, and those that have them make scant use of the property tax as a revenue source. As shown in Table 2.6, only about 15.5% of total district revenues stem from the property tax, with virtually no use of the property tax by districts providing such important services as housing and urban renewal, water supply, electricity and gas supply.

In contrast, as mentioned above, districts make substantial use of user charges. This fact is illustrated in Table 2.7. As shown, the special districts in most states make very substantial use of user charges. The frequency of use of revenue bonds as a source of long-term debt is reflected in the comparatively high percentage of nonguaranteed debt issued by special districts.

As noted earlier, significant portions of special district revenues come from Federal, state and local aid. The proportion of intergovernmental aid to special districts, by region, is tabulated in Table 2.8.

Table 2.6. Property Tax Revenues as a Percent of Total Special District Revenues

Category	% of Total Revenues
Total	15.5%
Single Function Districts	17.6
Cemeteries	68.2
Education/School Bldg. only	0.0
Fire Protection	93.3
Highways	10.3
Health	85.0
Hospitals	12.3
Housing and Urban Renewal	0.1
Libraries	82.1
Natural Resources	32.4
Drainage	62.4
Flood Control	39.3
Irrigation and Water Conservation	26.4
Soil Conservation	5.2
Other and Composite	43.8
Parks and Recreation	64.7
Sewerage	38.8
Utilities	8.7
Water Supply	22.8
Electric Power	0.0
Transit	6.0
Gas Supply	0.0
Other	15.4
Multiple Functions Districts	6.3
Sewerage and Water Supply	14.8
Natural Resources and Water Supply	21.9
Other	4.6

Table 2.7. Special Districts as a Percentage of Total Local Expenditures, Debt, Revenues, Charges, Taxes: 1976-77, by State

State	% of Total Expenditures	% of Total Revenues	% of Debt	% of Non-Guaranteed Debt	% Charges	% Taxes
Alabama	8.69	8.10	18.64	19.89	21.90	.13
Alaska	-	-	-	-	-	-
Arizona	2.05	2.96	46.46	67.68	-	.70
Arkansas	3.49	3.56	17.85	20.44	4.17	.55
California	5.08	7.37	33.21	26.19	25.89	4.72
Colorado	4.68	6.53	14.53	20.71	14.65	6.35
Connecticut	3.22	2.66	12.79	66.80	14.06	.73
Delaware	4.06	4.71	28.51	76.97	24.92	-
Washington, D.C.	-	27.83	40.38	80.44	19.26	-
Florida	6.55	7.08	10.15	13.58	22.36	2.54
Georgia	18.15	23.55	22.55	21.79	57.17	.14
Hawaii	-	-	-	-	-	-
Idaho	9.25	10.84	20.65	59.13	26.09	7.00
Illinois	9.08	9.77	20.64	20.79	19.75	6.39
Indiana	5.38	5.70	46.23	64.99	10.13	3.63
Iowa	.24	.52	.06	.07	.36	.05
Kansas	2.02	2.10	12.66	18.05	6.02	.75
Kentucky	1.55	2.30	3.46	5.59	3.40	3.04
Louisiana	5.57	6.53	11.43	17.09	18.30	3.04
Maine	11.66	14.59	33.99	44.71	9.88	.16
Maryland	6.59	6.96	29.86	36.05	23.97	1.90
Massachusetts	2.52	6.38	27.32	72.21	12.56	.11
Michigan	1.60	1.92	1.48	4.79	7.06	.19
Minnesota	6.23	7.95	17.33	16.09	10.22	1.86
Mississippi	15.66	1.22	9.10	11.64	2.29	.65
Missouri	4.29	6.78	12.75	21.65	-	3.18
Montana	1.27	1.69	4.96	6.47	8.90	.19
Nebraska	4.63	8.82	73.00	87.48	4.27	1.97
Nevada	3.62	.32	19.49	39.94	8.33	1.06
New Hampshire	2.35	2.57	12.84	45.32	6.35	.68
New Jersey	6.59	5.93	32.18	94.56	31.35	.18
New Mexico	1.29	1.51	7.64	5.19	6.84	2.13
New York	2.32	2.10	8.14	44.87	16.99	.24
North Carolina	3.81	2.93	1.25	50.13	13.99	.09
North Dakota	3.37	4.16	3.79	3.63	8.56	3.43
Ohio	2.65	2.70	12.73	25.67	5.00	2.16
Oklahoma	1.46	1.36	9.75	22.10	2.82	-
Oregon	9.14	10.56	40.19	49.54	28.12	8.34
Pennsylvania	9.85	12.44	59.71	93.56	25.82	.04
Rhode Island	4.71	4.98	23.80	72.64	30.96	2.25
South Carolina	5.24	5.00	16.79	15.42	13.25	2.35
South Dakota	.89	.42	4.05	4.44	1.52	.21
Tennessee	4.44	3.98	17.33	32.02	9.41	.03
Texas	6.93	5.94	24.47	47.68	20.74	2.02
Utah	1.30	5.38	31.12	75.18	5.65	3.79
Vermont	2.88	1.86	20.79	7.84	9.74	1.49
Virginia	4.68	2.52	14.41	67.72	18.58	-
Washington	12.90	21.02	71.20	84.44	53.61	8.70
West Virginia	5.53	2.34	37.06	51.44	7.74	.16
Wisconsin	1.61	1.56	4.46	.80	2.79	1.08
Wyoming	2.59	3.03	4.69	7.38	10.34	1.43

Source: Calculated from Data in U.S. Department of Commerce, Bureau of the Census, Governmental Finances in 1976-77 (Washington, D.C.: U.S. Government Printing Office, 1978):46-63.

Table 2.8. Intergovernmental Aid to Special Districts, 72 Largest SMSAs, 1970

Region	Aid (%)
Northeast	21
North Central	19
South	12
West	6

Source: ACIR Tabulation.

2.8 Control of District Organization

Control over the day-to-day affairs of special districts is exercised by a board of governors, who are either appointed or elected. Some boards have a number of members appointed and others elected. Appointments are made by state or local officials as well as by the local courts, as shown in Table 2.9.

The tenure of governing board members varies from one to seven years in most instances. The governing boards of special districts are generally held responsible for the execution of the day-to-day affairs of districts.

They also make heavy use of appointed committees and professional consultants who make proposals to the boards on such matters as investment projects and rate changes. The boards have final say as to which proposals are accepted.

The next section deals with one of the major activities of special districts--public service contracting.

2.9 Public Service Contracting by Special District

One of the major advantages of contracting is that it enables municipalities to take advantage of production efficiencies that are assumably available when a service is provided by a special district, and at the same time maintain local control over the planning and financing aspects of service provision. In essence, the demand

Table 2.9. Governing Board Characteristics, Selected Special Districts in the 72 Largest SMSA's

Region	Total	State Aptd.	Local Aptd.	Elected	State/ Local Aptd.	Local Aptd./ Elected	State Aptd./ Elected	Court Aptd.
Northeast	18	10	4	3	0	0	0	0
North Central	29	1	7	8	5	0	3	5
South	23	5	3	5	1	0	4	1
West	24	1	11	9	0	1	2	0
Total	94	17	25	25	6	1	9	6

Source: ACIR Tabulation.

articulation that is attainable in a Tiebout-world of small governmental units is, with the existence of contracting, quite consistent with the availability of economies of scale in production and distribution that can conceivably be exhausted only by a larger unit of government. More will be said of this in the next section. A discussion of the evolution of contracting as a structural form of urban public service provision is needed first. Such a discussion provides the opportunity to examine the role of the various economic interests involved in the organization of municipal service provision, a topic that will be of much importance in subsequent chapters.

In the late 1940's and early 1950's incorporated areas of Los Angeles County, California accused the county government of subsidizing unincorporated areas by using county property taxes to finance services provided to these (unincorporated) areas.[6] This contention led to existing municipalities to seek annexation or incorporation of unincorporated areas. However, the county government, especially the departmental heads of public service producing organizations, discouraged incorporation or annexation because they thought it "might reduce the size and activity of the county production organizations."

This conflict led the city of Long Beach to attempt to annex Lakewood, California, an unincorporated area, in the early 1950's.

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[6]S. Sonenblum et al., How Cities Provide Services (Cambridge, Mass.: Ballinger, 1977):6.

Lakewood residents however, a comparatively homogeneous group (in terms of wealth), did not want to be annexed or incorporated, but they did want to maintain the quantity and quality of the services provided by the county. The alternative adopted by the residents of Lakewood was to become incorporated and organized without any municipal departments. Many of the services provided to Lakewood residents were by contract with county agencies. Thus it was that Lakewood became the first "complete contract city" in the U.S.

2.10 The Scope of Contractual Service Arrangements

To attain a better understanding of the scope of contractual service arrangements in the U.S., consider the data in Table 2.10, provided by J. F. Zimmerman from a survey of intergovernmental service agreements.[7]

Formal and informal agreements can involve any service. However, most formal agreements relate to the provision of water supply, sewerage treatment, and joint facilities. Informal agreements, on the other hand, relate chiefly to mutual aid and the maintenance of highways, bridges, etc.

In general, more populated cities make more service arrangements than do less populated cities, although cities with populations of

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[7] J. Zimmerman, "Meeting Service Needs Through Intergovernmental Agreements," The Municipal Yearbook, 1973, p. 79.

Table 2.10. Municipalities with Written and Unwritten Service Agreements

Classification	No. of Cities Reporting (A)	Service Agreements No. (B)	Service Agreements % of (A)	Other Municipalities No.	Other Municipalities % of (B)	Counties No.	Counties % of (B)
Total, all cities	2,248	1,393	61	567	40	858	61
Population Group							
over 500,000	6	5	83	1	20	1	20
250,000-500,000	8	6	75	1	16	5	83
100,000-250,000	46	32	69	17	53	23	71
50,000-100,000	108	86	81	40	46	64	74
25,000-50,000	216	164	75	74	45	105	64
10,000-25,000	496	338	68	150	44	216	63
5,000-10,000	583	338	57	134	39	204	60
2,500-5,000	786	424	53	150	35	240	56
Under 2,500	1	0	0	0	0	0	0
Metro/City Type							
Central	142	107	75	40	37	73	68
Suburban	1,004	713	71	403	56	427	59
Independent	1,102	573	51	124	21	358	62

Source: Robert Bish and H. Nourse, Urban Economics and Policy Analysis (New York: McGraw Hill, 1975):424.

25,000-50,000 and 50,000-100,000 do make more agreements than cities in the 100,000-250,000 population range.

Next, consider Tables 2.11 and 2.12. They break down the category of "municipalities with service agreements" into two groups: those providing and those receiving services. Table 2.11, as expected, indicates that larger cities provide more services to other governments than do less populated cities. Another interesting statistic from this table is that the council-manager form of government is involved in significantly more intergovernmental service arrangements than any of the other four mentioned. One explanation of this may be that the job tenure of a city manager is more likely to depend upon his ability to reduce the cost of services than that of an elected local governmental official.

Data regarding the units responsible for the negotiation of intergovernmental service agreements are presented in Table 2.13. As shown, the contract negotiator can be a mayor, councilman, city manager or staff members. This point, although seemingly minor, is an important one, as it indicates the structure of rights in the local government industry. That is, there are a number of different individuals, with presumably different tastes, preferences, and contraints on their behavior, who in some way benefit from their negotiation of public service contracts, politically or otherwise. Considerations such as these will be shown in the next several chapters to have a significant effect on the economic performance of local government.

Table 2.11. Municipalities Providing Services to Other Governments

Classification	No. of Cities Reporting (A)	Provide Services to Another Government	
		No.	% of (A)
Total, all cities	2,167	936	43
Population Group			
Over 500,000	3	3	100
250,000-500,000	8	7	87
100,000-250,000	38	30	78
50,000-100,000	96	59	61
25,000-50,000	205	108	52
10,000-25,000	477	228	47
5,000-10,000	572	239	41
2,500-5,000	768	262	34
Under 2,500	0	0	0
Form of Government			
Mayor-Council	1,037	394	37
Council-Manager	1,001	505	50
Commission	68	26	38
Town Meeting	49	9	18
Rep. Town Meeting	12	2	16
Metro/City Type			
Central	126	96	76
Suburgan	974	374	38
Independent	1,067	466	43

Table 2.12. Cities Receiving a Package of Services

Classification	No. of Cities Reporting (A)	Receive Package of Services No.	Receive Package of Services % of (A)
Total, all cities	1,305	176	13
Population Group			
Over 500,000	2	0	0
250,000-500,000	6	2	33
100,000-250,000	27	7	25
50,000-100,000	79	17	21
25,000-50,000	152	28	18
10,000-25,000	323	45	13
5,000-10,000	319	31	9
2,500-5,000	397	46	11
Under 2,500	0	0	0
Form of Government			
Mayor-Council	555	10	10
Council-Manager	682	15	15
Commission	38	23	23
Town Meeting	25	8	8
Rep. Town Meeting	5	20	20
Metro/City Type			
Central	92	19	20
Suburban	677	112	16
Independent	536	45	8

Table 2.13. The Unit Responsible for Negotiation of Agreements

Classification	No. of Cities Reporting (A)	Mayor		Council or Commission		Manager or Administrator		Manager's Staff	
		No.	% of (A)	No.	% of (A)	No.	% of (A)	No.	% of (A)
Total, all cities	1,216	135	11	140	11	414	34	106	8
Population Group									
Over 500,000	4	1	25	1	25	0	0	0	0
250,000-500,000	7	1	14	0	0	2	28	2	28
100,000-250,000	30	6	20	3	10	14	46	12	40
50,000-100,000	71	11	15	6	8	43	60	16	22
25,000-50,000	156	11	7	7	4	85	54	33	21
10,000-25,000	303	31	10	25	8	127	41	28	9
5,000-10,000	289	26	8	36	12	81	28	8	2
2,500-5,000	356	48	13	62	17	62	17	7	1
Form of Government									
Mayor-Council	515	93	18	77	14	51	9	7	1
Council-Manager	644	33	5	51	7	359	55	99	15
Commission	36	5	13	7	19	1	2	0	0
Town Meeting	17	3	17	4	23	2	11	0	0
Rep. Town Meeting	4	1	25	1	25	1	25	0	0

With respect to the types of services contracted for, an International City Manager's Association survey reports that the services most often contracted for, in order of descending frequency, are as follows:

1) Street Lighting--installation and maintenance

2) Refuse and Sanitation services--mostly industrial waste treatment rather than collection and disposal of garbage from private residents

3) Health Services

4) Tax collection and assessment

5) Water Supply--about 60 percent of the contracts were with other units of governments, the remainder with private companies

6) Law Enforcement

7) Street Maintenance and Cleaning

8) Fire protection--70 percent of the municipalities surveyed contracted; mostly with other units of government

9) Building and Safety Code Enforcmeent.[8]

A number of elements of the institutional environment within which local public services are provided by special districts have been discussed in this chapter. This discussion is intended to aid the reader's understanding of the analysis undertaken in the remainder of this study.

With these institutions as background, the next section describes, in somewhat more detail than what has been thus far provided, the

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[8]International City Manager's Association, "Contracting for Municipal Services," Management Information Service Report 240, 1964.

potential for economic efficiency in local public service provision by special districts. It is assumed that the agents involved (the local political decision makers) act in a benevolent manner, maximizing the social welfare (however defined) of their constituents. In making this assumption one gains an understanding of the potential for economic efficiency in local service provision by districts. The next step (in Chapters 3 and 4) will be an examination in greater depth, with the use of economic theory, of the incentives provided by existing institutions to local political decision makers (alternatively assumed to be self-interested actors), to attain such efficiency.

The value of an inquiry conducted in this way is suggested by a quotation from urban economists Robert Bish and Hugh Nourse, who asserted that

> . . . we need to impose our capacity to predict what difference different organizational structures will make if we are to have incentive systems that lead to self-correcting instead of cumulatively destructive behavior. We need to begin to understand the operation of the multitude of public agencies in the public sector as we understand the operation of the market--as a system of individuals making decisions with certain regular outcomes, not as a dichotomy between chaos and bureaucratic monopolies.[9]

Bish and Nourse maintain, more specifically, that a type of research that

> . . . may in the long run be the most important for assisting individuals to resolve their common problems in an increasingly diverse and complex economy and

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[9]Robert Bish and H. Nourse, Urban Economics and Policy Analysis (New York: McGraw Hill, 1975):424.

> polity . . . is research that enables us to predict the likely consequences of different rules of political organization or different institutional structures . . . more attention needs to be paid to the design of decision-making arrangements with a view to creating institutional structures within which individuals seeking to resolve their own problems come to agreeable solutions. In the past too little attention has been paid to how efficient and responsive small political jurisdictions are, how well areawide problems are resolved through areawide special districts or intergovernmental arrangements . . .[10]

2.11 Special Districts and Economic Efficiency

The purpose of this section is to depict the ways in which special districts provide an institution by which economic efficiency in the provision of local public services can be attained. It is assumed that there are no institutional barriers to the creation of special districts and that local political decision makers act so as to maximize the social welfare of the community.

Consumption Efficiency

A major economic problem that arises when local governments provide public goods and services is that widely divergent preferences cannot simultaneously be satisfied. Consider Figure 2.1 for example.[11]

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[10]Bish, Urban Economics and Policy Analysis, p. 424.

[11]The first to employ this diagram was Yoram Barzel in his "Two Propositions on the Optimum Level of Producing Collective Goods," Public Choice 6 (Spring 1969):31-38. Also, see J. M. Buchanan, "Principles of Urban Fiscal Strategy," Public Choice 8 (Spring 1970):1-16.

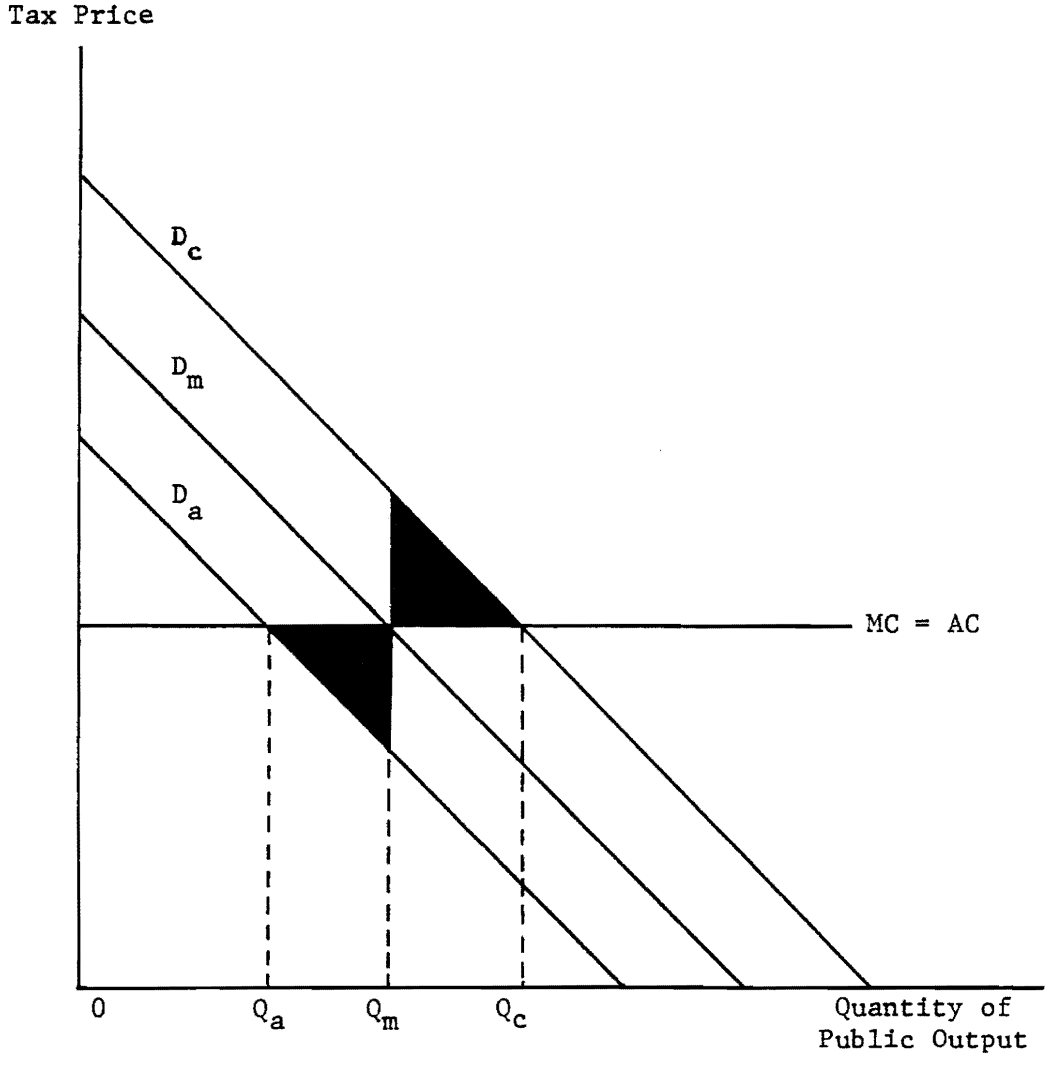

Figure 2.1. Special Districts and Consumption Efficiency

On the vertical axis is measured the tax price or cost of the representative public good or service, the quantity of which is measured along the horizontal axis. The horizontal line represents the (marginal) cost of providing alternate levels of the good, which is assumed constant for simplicity. The curves D_a, D_m, and D_c represent the demands of the low demander(s), median voter(s) and high demander(s) respectively. Given that under a constitutionally imposed majority rule the quantity of public output provided will be that corresponding to the preferences of the median voter, the quantity of public output supplied by, we assume, a general purpose unit of government will be Q_m. At the given price the high demander prefers the amount Q_c, but is unable to attain it. Also, the low demander would prefer the lesser amount, Q_a, but must contribute toward the provision of the Q_m level of public output.

With this divergence of desired from actual levels of output the welfare losses are depicted here by the shaded triangles.

The role of special districts in attaining a more efficient allocation of local public resources lies in the fact that districts can provide a mechanism by which high and low demanders can more effectively articulate their demands. They can do this, for example, by forming a number of different types of districts to provide services such as street lighting, libraries, health services, police patrols, refuse collection etc. The desire by low demand (and income) groups in urban areas to take such initiatives is evidenced by the popularity

of "neighborhood governments" in many urban areas during the 1960's and 70's.[12] These governments are, in effect, attempts to create neighborhood districts to provide desired quantities and qualities of particular services.

Another advantage of district government is that decision making costs are likely to be comparatively lower than with general purpose units of government. This is mainly because of the comparatively smaller size of the service-producing unit and the fact that many districts are formed by individuals with similar preferences, in terms of quantity and quality levels of public goods and services. In anticipating the participation in special district government, the individual faces a comparatively lower probability of negative political externalities being imposed upon him.

It should also be noted that it is possible to vary the quantity of service supplied within one areawide district, which serves to further enhance the prospects for demand articulation. For example, it is not uncommon for a number of local public agencies and governmental jurisdictions to form an areawide district which can serve the "member communities" according to the service demands articulated by each community. A small local jurisdiction, for example, upon collectively forming an areawide district to provide a particular service can enter into such an arrangement where it only purchases the

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[12]For a good discussion of the phenomenon of neighborhood government see Howard W. Hallman, Neighborhood Government in a Metropolitan Setting (Beverly Hills: Sage, 1974).

amount of service preferred (by the median voter) at given prices. An example of this type of arrangement will be given shortly.

Production and Distributional Efficiency

As seen in Chapter 1, a number of studies have found evidence of economies of scale in the production of some services such as water supply, electricity, and sewage disposal. It was also seen that decreasing population densities and increased transportation or distribution costs were the sources of diseconomies of scale in the provision of these services beyond certain output levels. These particular studies were performed exclusively with data pertaining to multipurpose units of local government. The question to pose at this point is: how effective are special districts in attaining production and distribution efficiency? A number of studies have been undertaken that attempt to answer this question. One California study evaluated the economic performance of 153 sewage plants operated by municipalities and by districts.[13] Scale economies were found, but no significant difference was found between the two types of suppliers.

The nature of the sewage industry, for example, leads to the idea that special districts are a valuable mechanism by which production and distribution efficiency can be attained. Namely, as many sewage treatment districts operate with increasing returns to scale, smaller

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[13]Krohm, G. "The Production Efficiency of Single Purpose vs. General Purpose Government: Findings of the Organizational Structure of Local Government and Cost Effectiveness." (Sacramento: Office of Planning and Research, 1973).

communities desiring sewage treatment services often construct their own collection systems and then contract with a district for treatment.[14] In this way the smaller communities can obtain the cost advantages of the above-mentioned scale economies while foregoing the expense of constructing their own facilities.

Another point to be made here concerns the fact that there are increasing returns to scale in the production of sewage treatment services only up to a point, beyond which decreasing returns set in due to increased pipe costs, lower population densities, etc. A number of smaller plants, at that point, may be the most efficient solution. Thus the ability to create a number of special districts of (theoretically) the optimum size is indeed a desirable option.

Further evidence of the ability of special districts to attain production and distributional efficiency stems from their superior ability to finance capital expansion compared to some individual units of government. For example, the Metropolitan Water District of Southern California was formed by a number of municipalities and districts in order to generate necessary funds to invest in facilities to transport water from the Colorado River to the Los Angeles Basin.[15]

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[14]See for example, Assembly Interim Committee on Municipal and County Government, Special Districts in the State of California: Problems in General and the Consolidation of Sewer and Fire Districts Acts, 1957-59. Vol. 6 no. 12 (Sacramento: State Printing Office 1959), p. 23.

[15]J. Bain, R. Caves, J. Margolis, Northern California's Water Industry (Baltimore, Md.: Johns Hopkins Press 1966):212-13.

The economic advantage derived from this institution was cited in 1973 when it was determined that "no single agency could have undertaken such activities without serious diseconomies."[16]

Regional districts such as this also face the possibility of reducing per unit costs even further as a result of their ability to obtain Federal grants.

A proposed regional sewage treatment district in Pepper's Ferry, Virginia for example, to be formed by the City of Radford, Virginia, Montgomery County, Virginia, Dublin, Virginia, The Fairlawn Sewerage Authority and the Pulaski County Service Authority expects seventy-five percent of its construction costs to be financed by the Environmental Protection Agency.[17]

In essence, the reasoning and evidence cited above shows that, in many instances, special districts provide an institution that is capable of being just as efficient in providing local public goods and services as general purpose units of government. One must acknowledge, however, the fact that under certain circumstances production and distributional efficiency may be unattainable by any supplier.

A Note on Public Managerial Efficiency

It has been posited by Gordon Tullock that there are substantial differences between public and private institutions in handling

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[16]San Diego County Water Authority, Report to the California Council on Intergovernmental Relations (San Diego: San Diego Water Authority, 1973).

[17]Roanoke Times and World News, 16 April 1979.

information. In private organizations incentives of subordinates to transmit "correct" information are monitored by profit and loss statements, which provide a basis upon which managers can evaluate their subordinates.[18]

In contrast, according to Tullock, the self-interested, career-minded government bureaucrat has the incentive to transmit to his superiors only the information that they want to hear. Since governments do not have profit and loss statements, it is much less costly for the bureaucrat to transmit incorrect or incomplete information as such. Furthermore, Tullock contends, as agencies gain in size this process becomes more widespread, leading to even greater managerial inefficiencies.

In light of this it is reasonable to assume that special districts will be more efficient in their dissemination of information due to their single (of "few")--purpose nature, in comparison to general purpose units of government. This of course is not to say that it is desirable to replace some multipurpose units of government with special districts, but merely that district creation does provide an institution that is capable of efficiently handling large amounts of information.

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[18]Gordon Tullock, The Politics of Bureaucracy (Washington, D.C.: Public Affairs Press, 1965).

District Pricing Practices and Economic Efficiency

A further "efficiency advantage" of special districts is that they represent an institution that, by charging explicit prices for many public services, can enhance the public allocation of resources.

Consider first a general purpose unit of government that relies heavily upon the property tax as a revenue sources as is quite often the case. The consumer-taxpayer may have an adequate perception of what his personal benefits derived from a number of public goods and services are, but it is difficult for him to discern the exact costs, as his tax payment for these local public goods and services is in the form of a property tax that is not disaggregated. Furthermore, the fact that many municipally owned utilities contribute part of their revenues to the city's general fund, which is often used to financially support other local governmental functions implies that the consumer-taxpayer is contributing an amount greater than the true cost of the service.[19] That is, he is in effect making a side payment or providing a subsidy that the individual may or may not want to pay for.

In contrast, special district government provides the potential for greatly improved management of quantities and qualities of public services. The individual knows what the benefits derived from a single

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[19]See Patrick C. Mann, "The Interlocking of Municipalities and Publicly Owned Utilities," in Paul B. Downing, Editor, Local Service Pricing Policies and their Effect on Urban Spatial Structure (Vancouver: University of British Columbia Press, 1977):286-308.

purpose district are as well as the bill he pays to attain them, given user charge finance. The side payments that often take place with multipurpose governmental provision are also eliminated.

Pricing by special districts provides the further advantage of allowing the individual to purchase the quantity he desires of some services at the given price. If the price of, say, water supply increases he then receives a market signal that permits him to alter the amount of service demanded. For example, one can merely start washing the car or watering the lawn less, etc. A market signal is also transmitted to public managers who then may alter the local public service production mix to more closely match voter demands. This particular efficiency advantage is dependent upon the type of user fee employed by a district. Many utility-type services such as electricity, refuse collection, etc. are financed through the imposition of a flat fee. Such a fee does not necessarily reflect the true cost or value of service. Therefore, the price signals that may allow volume adjustments may not be forthcoming in instances such as these.

District pricing also yields a means of meeting the demands of different groups of individuals with different intensities of preferences for various public services. For example, those who want more street lighting, health services, etc. can get it--if they're willing and able to pay for it.

One final point here is that many of the advantages of district pricing practices as described here are not viable for those goods

exhibiting a high degree of publicness--at least in the absence of a mechanism such as the demand revealing process.[20]

District Contracting

Although the advantages of public service contracting by special districts have been mentioned briefly above, the economic advantages of contracting involving special districts will now be examined in more detail.

Special districts do, at times, possess the ability to exhaust scale economies in the production and/or distribution of certain services. The ability to sell these services to other units of government yields the prospect for mutually advantageous gains from trade. That is, the district can increase its net revenues, perhaps implying even lower operating costs, while the contracting community gains the benefits of lower cost services without having to sacrifice the demand articulation that is easier to obtain in smaller jurisdictions. The contracting community can, theoretically, articulate its demands by purchasing only the quantity and quality of the service that it prefers. The irrigation district example of Chapter 1 is worth repeating here. In that example, the contracting community was assumed to be able to purchase the amount of water it needed, whenever it needed it. Without the ability to contract, for whatever reason, the water would

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[20]For a discussion of the nature of public goods see J. M. Buchanan, The Demand and Supply of Public Goods (Chicago: Rand McNally, 1968). On the Demand Revealing Process, see Public Choice, Vol. 29-2, Special Supplement to Spring 1977.

most likely have not been forthcoming at all, given the high cost of constructing irrigation facilities. And even if such facilities were built, they might not be constructed at the optimal plant size due to financial limitations--limitations that are often overcome by special districts.

Empirically, a number of studies have found considerable evidence that contracting for services has indeed provided improved efficiency in local government service provision as well as a means of "lessening urban fiscal pressures."[21]

2.12 Summary

The purpose of this chapter has been twofold. First, to familiarize the reader with the institutions of special districts and contracting.

Second, to outline the potential that these institutions provide for attaining economic efficiency in production, distribution and consumption in the provision of local public services. In doing this it was assumed that such efficiencies, as defined above, could be obtained,

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[21] Steven L. Mehay, "Intergovernmental Contracting for Municipal Police Services: An Empirical Analysis," Land Economics (Feb. 1979): 59-72; John Kirlin, "The Impact of Contract Services Arrangements on the Los Angeles Sheriff's Department and Law Enforcement Services in Los Angeles County," Public Policy 21 (Fall 1973):553-84; Sidney Sonenblum et al., How Cities Provide Services (Cambridge, Mass.: Ballinger 1977); Peter Kemper and John M. Quigley, The Economics of Refuse Collection (Cambridge, Mass.: Ballinger 1976); E. S. Savas, Editor, The Organization and Efficiency of Solid Waste Collection (Lexington, Mass.: Lexington Books 1977).

given perfectly benevolent local political decision-makers and the existence of individual rights to collectively organize special districts.

The purpose of the next several chapters will be to depict how conducive a number of existing institutions are to the attainment of these efficiencies by altering the behavioral assumptions made in this chapter. Namely, it will be alternatively (and more realistically) assumed that local political decision-makers are not "benevolent," but rather are self-interested actors who maximize their own personal utility subject to the constraints facing them. This may or may not be consistent with the attainment of efficiency in the provision of local public services.

With these basic behavioral assumptions, to be outlined in more detail in the next chapter, two questions are to be answered there.

First, what incentives do existing and alternative local governmental institutions present to local bureaucrats and politicians to seek out contracting as a less costly means of service provision? Second; what incentives are provided by existing institutions to enforce public service contracts, once entered into? It is seen that difficulties in monitoring district suppliers' performance are a hindrance to the realization of mutually advantageous gains from trade that can accrue from contracting.

The second major assumption made throughout Section 2.10 was that there are no hindrances to the creation of special districts. Realistically, however, there are a number of different ways in which

districts can be created and dissolved. The purpose of Chapters 4 and 5 will be to discern the economic effects of a number of institutional changes that have, in effect, made district creation more difficult and have led to a decline in the rate of growth of special district formation in several states.

Chapter 3

ENABLING LAWS AND THE ECONOMICS OF PUBLIC SERVICE CONTRACT ENFORCEMENT

3.1 Introduction

Up to this point the institutions of special districts and contracting have been discussed with the assumption of perfectly passive local politicians and bureaucrats. There is, of course, no reason to assume that local bureaucrat-politicians are different from the "average individual" as viewed by economic theory, i.e., that they are not self-interested utility maximizing agents. It is not necessarily true that local political decision makers will respond faithfully to the demands of the consumer-taxpayer. A number of institutional factors, to be described presently, create differential incentives to do so. Therefore, the mere existence of or potential for attaining the efficiency criteria defined in Chapter 2 says nothing about how effectively "real world" institutions provide the incentive (if any) to local political decision makers to pursue such efficiency. In light of this, this section will start out by reviewing some of the existing literature pertaining to public sector supply, which includes the discussion of the rational behavior of local bureaucrats and politicians. Then, these principles of human action will be subjected to a number of manifestations in the local governmental institutional framework.

This scenario will then be used to answer two main questions posed in the remainder of this chapter. First, what incentives are provided to local political decision makers by existing and alternative institutions to seek out more efficient means of service provision through district contracting and to attain the efficiency advantages thereof? Second, what incentives are there to enforce such contracts? Evidence is cited that infers that the nonenforcement (or the non-monitoring of performance) of such contracts is an attenuation of the rights of individuals in the contracting communities, and therefore is a hindrance to the execution of public service contracts and the efficiency advantages thereof.

3.2 The Rational Behavior of Local Political Decision Makers

The local political decision makers whose behavior is to be studied consist of the following groups of individuals. First, we are interested in the motives of the individuals who are actually responsible for the contracting of services. As seen in Chapter 2 this group includes mayors, city council members, municipal managers and/or their staff. These are the individuals whose job it is to organize the production and distribution of municipal services--a task that includes the consideration and implementation of contracting alternatives to "home production."

The second group of individuals whose behavior is to be studied is the district management, whose responsibility it often is to

organize and monitor the production and distribution of district services--including those that are sold to contracting jurisdictions.[1]

In essence, two categories of public managers are to be examined here: bureaucrats, elected or appointed, who manage a particular service-producing agency, and locally elected politicians.[2] Each group will be seen to have somewhat different choice sets, constraints and patterns of strategic behavior that have an effect on the allocation of resources in the local public sector.

Utility Maximizing Bureaucrats

The economic theory of bureaucracy attempts to explain the growth of government expenditures as a result of the rational behavior of utility maximizing government bureaucrats.[3] The bureau manager is seen to maximize a utility function, where utility is a positive function of the present value of his income and the perquisites of his position, such as leisure, physical amenities, prestige, etc.

Since the public manager cannot lay claim to the "profits" of the government enterprise, he seeks other ways of supplementing his

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[1]The following analysis can be generalized to the case where the contractor is a county or municipality as well as a district.

[2]The behavior of such agents will be discussed more fully in a later section.

[3]See William Niskanan, "Bureaucrats and Politicians, Journal of Law and Economics 18 (December 1975); Richard E. Wagner and Warren Weber, "Competition, Monopoly, and the Organization of Government in Metropolitan Areas," Journal of Law and Economics 18 (December 1975): 661-84; Gordon Tullock, The Politics of Bureaucracy (Washington, D.C.: Public Affairs Press, 1965).

income stream. One way is to increase the bureau's net budget, according to Niskanen and others. A larger budget may enable the bureaucrat to increase his own personal wealth through the purchase of more job-related perquisites.

Since the "ownership" of a governmental enterprise is diffused among the municipality's residents while public managers are the ones who exert control over governmental operations, we have a separation of ownership from control in governments just as in firms.[4] So, public managers not only have the incentive to increase their wealth via job-related perquisites at the expense of governmental owners, but also to transfer wealth from governmental owners to themselves by shirking.[5] Such shirking implies that inputs are not combined in a least-cost manner, and that the result is an eventual increase in the cost (and price) of publicly produced goods and services.

These basic behavioral postulates will be applied in the next section to the case of the local public manager whose job it is to organize the provision of local public services. The question to be posed is: what factors affect the extent to which the local public manager substitutes his own personal utility for that of government

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[4]Richard E. Wagner, "Supply Side Aspects of the Theory of Local Government," Mimeograph, VPI & SU, Department of economics, 1974; Adolf A. Berle and Gardiner C. Means, The Modern Corporation and Private Property (New York: MacMillan, 1933).

[5]Armen Alchian and Harold Demsetz, "Production, Information Costs, and Economic Organization," American Economic Review 62 (December 1972):777-95.

owners by shirking his duty of seeking less costly means of service provision via contracting?

With respect to locally elected politicians, it will be assumed that the local politician acts in a manner similar to Niskanen's "individual legislator" in that he maximizes the number (or proportion) of votes in the next election.[6] Votes are a positive function of services performed for campaigners and contributors and the provision of public services. Taxes and/or fees paid for governmentally provided services impose a negative influence on votes.

The local politician is seen to spend all of his work time both monitoring the activities of the producers and distributors of public services and campaigning/catering to his constituents. The cost of public service provision is assumed to decline as the politician spends more of his time monitoring those activities. Such monitoring also reduces the discretionary profits available to the local public manager. Also, the time spent on "constituency activities" is a positive function of the politician's total hours of work and the vote effect of those activities.

The next section begins with a survey of state constitutional and statutory provisions granting various local public managers the right to partake in the execution of public service contracts. Then, given the existence of such laws, the above bureaucratic framework will be applied to answer the question of what incentives are provided by

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[6]Niskanen, "Bureaucrats."

different local governmental institutions to "make use" of such rights, thereby yielding the efficiency advantages made possible through contracting.

3.3 The Authority to Enter Into Intergovernmental Contractual Arrangements

Forty-two states have enacted some form of general intergovernmental contracting legislation.[7] In thirty-two states, however, such enabling legislation applies only if both local governments are granted authority. Furthermore, in thirteen states a general statute may not override an individual act that covers a specific functional area.[8] At least four states have enacted no legislation authorizing intergovernmental contracting, and a number of others have maintained a policy whereby attorneys general have curbed the use of public service contracting as a mode of public service provision. Table 3.1 displays the general intergovernmental cooperation authorization across the United States.

As seen in Table 3.1, most states have granted blanket authorization to their local units to provide services to other units of government.

One particular provision, however, that inhibits intergovernmental cooperation is the fact that in thirteen states general statutory

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[7]ACIR, Substate Regionalism and the Federal System (Washington, D.C.: ACIR, 1974):36.

[8]Ibid.

Table 3.1. Public Service Contracting Legislation

State	Contract Power	Across State Lines	Local Unit With Home State	Power of Only One Unit Nec.	Legisl. Action Required	Attorney General Approval
Alabama						
Alaska			X			
Arizona	X	X	X		X	X
Arkansas	X	X	X		X	X
California	X	X	X		X	X
Colorado	X	X	X		X	
Connecticut	X	X	X		X	X
Delaware						
Washington, D.C.						
Florida	X	X	X			X
Georgia			X		X	
Hawaii						
Idaho	X	X	X		X	X
Illinois	X	X	X			
Indiana	X	X	X		X	X
Iowa	X	X	X	X	X	
Kansas		X	X	X	X	X
Kentucky	X	X	X		X	X
Louisiana				X	X	
Maine				X	X	X
Maryland						
Massachusetts	X				X	
Michigan	X	X	X			X
Minnesota	X	X	X		X	
Mississippi						
Missouri	X	X	X		X	
Montana	X		X	X	X	X
Nebraska	X	X	X		X	
Nevada	X	X	X	X	X	X
New Hampshire						
New Jersey					X	
New Mexico		X	X		X	
New York						
North Carolina	X	X		X	X	
North Dakota		X	X	X	X	
Ohio						
Oklahoma	X	X	X	X	X	X
Oregon	X	X	X			
Pennsylvania	X	X	X		X	X
Rhode Island						
South Carolina					X	
South Dakota	X	X	X		X	
Tennessee	X	X	X		X	X
Texas	X		X		X	
Utah	X	X	X		X	X
Vermont	X				X	X
Virginia					X	
Washington	X	X	X		X	
West Virginia	X				X	X
Wisconsin	X	X	X		X	X
Wyoming		X	X	X	X	

authorization may not override the existing specific functional authorizations.[9] Several states have a plethora of individual statutes that tend to limit the usefulness of the general authorization. New Jersey, for example, had two hundred such statutes in 1970.[10]

Table 3.1 does show us that intergovernmental contracting has been greatly encouraged by the legal framework itself. One might further assert that in light of the discrepancy between specific and general legislation there might be an information problem facing local government managers. That is, will public managers hesitate to enter into contractual arrangements in view of the uncertainty regarding their right to do so? Some authors have answered this question positively and have consequently asserted that it is therefore desirable to establish mechanisms that would provide public managers with information pertaining to their right to employ alternative means of service provision, such as contracting.[11]

While such information may be useful, an even more important goal is to provide the incentive for public managers to seek out such information. One means of doing this is through the promotion of competition in the local government industry. That is, in a fragmented, competitive local government industry, i.e., one characterized by free

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[9]Ibid.

[10]Ibid.

[11]See J. Kirlin, J. Reis, and S. Sonenblum, Alternatives for Delivering Public Services: Toward Improved Performance (Boulder, Colorado: Westview Press, 1977):111-40.

entry of "government firms" such as special districts, there is more of an incentive for public managers to seek out information regarding more efficient means of service provision, for two related reasons.

First, the public manager's foregoing of such opportunities may increase the comparative costliness of the jurisdiction's public goods bundle and, consequently, diminish the fiscal surplus accruing to consumer-taxpayers there. This creates an incentive for individuals to migrate to other jurisdictions. In a general equilibrium setting, such migration will take place, theoretically, until fiscal surpluses are equalized among communities. The point to be made here is that if the public manager desires to maintain his jurisdiction's tax base, the ill-pursuit of efficient service provision will be an inhibiting factor in attaining that goal in a fragmented metropolitan area.

The second point to be made here is that in a fragmented, "competitive" local government industry, public managers do in fact have more incentive to pursue more efficient means of service provision, if available, than in a less competitive, consolidated metropolitan area. The reason for this, as shown through the application of an idea first developed by Wagner, is as follows.[12]

Consider a fragmented metropolitan area where public managers are all earning competitive wages. Now, if managers of one particular jurisdiction begin to increase their own discretionary profits by, say, lax monitoring of government production and little pursuit of more

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[12]Richard E. Wagner, "Supply Side Aspects."

efficient means of service provision (i.e., through contracting, if possible), the (tax) price of public services to consumer-taxpayers will rise. This will reduce the quantity of residency demanded, as it is assumed that the "price of residency" in a jurisdiction is composed of the tax price of the public goods bundle provided there plus the price of housing. The extent to which the tax price is altered and the speed at which it is altered will depend upon information consumer-taxpayers have pertaining to residency prices in other localities, the costliness of securing such information, and on migration costs. For simplicity, assume that consumer-taxpayers are fully aware of all this information. The result of the increased tax price then, is to reduce the amount of residency demanded and consequently, to depress property values. In effect, public managerial inefficiency is capitalized into property values. This change in property values then provides a basis on which a set of political entrepreneurs could make a "take-over bid." That is, a political entrepreneur could oppose the existing public manager(s) by running on a platform promising an increased level of efficiency in service provision which would yield a decline in the tax price paid by residents, an increase in property values, and subsequently, a capital gain that accrues to owner-residents of the locality.

Now consider a consolidated metropolitan governmental setting. There is, we assume, little or no migration among jurisdictions as the cost of <u>intermetropolitan</u> migration is, not unrealistically, prohibitively high. An increase in public managerial inefficiency will still increase tax prices, but in this case there is no longer a

decline in the quantity of residence demanded. There may still be a theoretical basis for a take-over bid, as managerial inefficiency does exist, but it is now based on weaker information signals as the take-over bid can no longer be based on the capital gain that could result from a change in management. Therefore, in a less competitive, consolidated metropolis, there is less incentive for government managers to pursue more efficient means of service provision.

The point to be made in this section is this: the mere existence of enabling laws regarding contracting opportunities and the availability of such information to local political decision makers is not an adequate policy with which to pursue the goal of more efficient local government. A necessary condition for the implementation or use of such information is the provision of an incentive for public managers to pursue the contracting opportunities that are made available. Competition in the local government industry is one means of providing this incentive. In a study of intergovernmental contracting in five states, Stoner has offered statistical evidence that "there is more cooperation in urban areas with many units of government that provide a great many services."[13] This implies that the elimination of barriers that hinder the creation of special districts (and other units of government) is conducive to a more efficient allocation of resources in the local public sector in terms of less costly service provision.

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[13]J. E. Stoner, Interlocal Government Cooperation: A Study of Five States, U.S. Dept. of Agriculture, Agriculture Economic Report No. 118, July 1967.

The next set of questions to be posed is: how are intergovernmental contracts enforced, who enforces them, what resources are brought to bear on such enforcement activity, and what are the implications of all this with respect to the economic efficiency of local government?

3.4 An Economic Theory of Public Service Contract Enforcement

The primary purpose of this section is to construct an economic model of rational contractual enforcement which is largely an adaptation of Becker's "Crime and Punishment" model.[14] The potential value of such an undertaking, in general, has been forcefully stated by Stigler in the following quotation:

> The influence upon contract, and upon economic organization generally of the costs of enforcing various kinds of contracts has received virtually no study by economists, despite its immense potential explanatory value.[15]

Within the context of municipal service contracting it is important to establish a framework with which to analyze the effects of alternative contract enforcement institutions on the strategic behavior of contracting agents and consequently on the extent to which contracting takes place.

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[14]Gary Becker, "Crime and Punishment: An Economic Approach," Journal of Political Economy 76 (March/April 1968):169-217.

[15]George J. Stigler, "The Optimum Enforcement of Laws," Journal of Political Economy 78 (March/April 1970):526-35.

First, an economic rationale for the importance of studying the enforcement of public service contracts will be established.[16]

Consider a service-producing government agency such as a special district that provides service demanders with two different goods: "home goods," provided to residents of the home jurisdiction, i.e., the jurisdictional membership of the district, and "export goods," provided to non-residents." One can think of home goods as those units of say, water supply provided to city residents, and export goods as the supply of water provided to those in the suburbs. Note that these "goods" are differentiated spatially--not necessary physically. Thus we can view the service producing agency as a multiproduct firm with a product transformation function represented by equation (3.1) as follows:

$$T = T(H,E) \tag{3.1}$$

where T = transformation function

H = home goods

E = export goods.

Assuming that the agency acts as a profit maximizing firm, which is in fact quite similar to Niskanen's net revenue maximization

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[16]After constructing the following model, the author discovered a very similar model by Thomas D. Crocker entitled "Water and the Economics of Implementing Environmental Objectives," in D. Field, J. Barron, and B. Long, Editors, Water and Community Development (Ann Arbor Science Publishers, 1974):261-78. The method used by Crocker is quite similar to the following framework, but his model is formulated within the context of (public) managerial decisions pertaining to the implementation of effluent fees or standards in controlling water quality.

assumption, the necessary conditions for the agency's "profit" maximization are obtained by taking the differential of (3.1) and setting it equal to zero:

$$(3.2) \qquad dT = \frac{\partial T}{\partial H} dH + \frac{\partial T}{\partial E} dE = 0$$

Then, a simple manipulation yields the fact that the slope of the transformation curve, dE/dH, is -(dT/dH)/(dT/dE).

The profit maximizing agency will operate at the point where the slope of the production possibility curve equals $-P_h/P_e$, where P_h = price of home good, and P_e = price of export good. Seen diagrammatically in Figure 3.1, the agency will be at equilibrium at point A where it produces OE_o units of export goods and OH_o units of home goods.

What happens as the agency begins to become lax in enforcement or monitoring of the contract services? The effect of a decrease in the enforcement of contractually provided services will be a decline in the quality of the service, which is equivalent to an increase in P_e. This is represented in Figure 3.2 by a shift in the isorevenue curve from MM to M'M'.

The new equilibrium is at point B, where in the case of a private multiproduct firm serving "private" markets there would be a substitution in production (and consumption) of home goods for export goods. However, since the analogy between a private, multiproduct firm and a local service-producing agency is by no means a perfect one, these same results cannot be postulated. That is, there will not necessarily be an increase in production of home goods when water demands are held

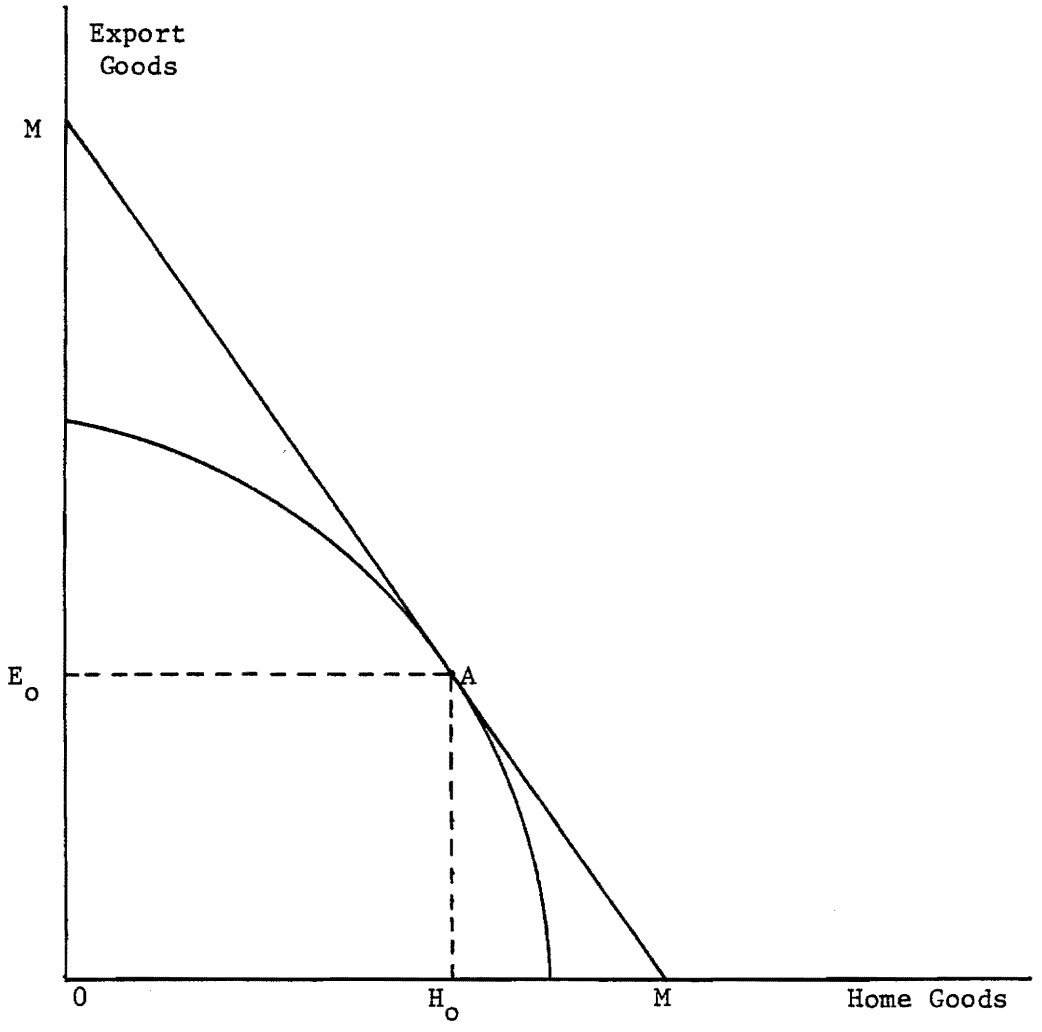

Figure 3.3. The Government Agency as a Profit Maximizing Multi-product Firm

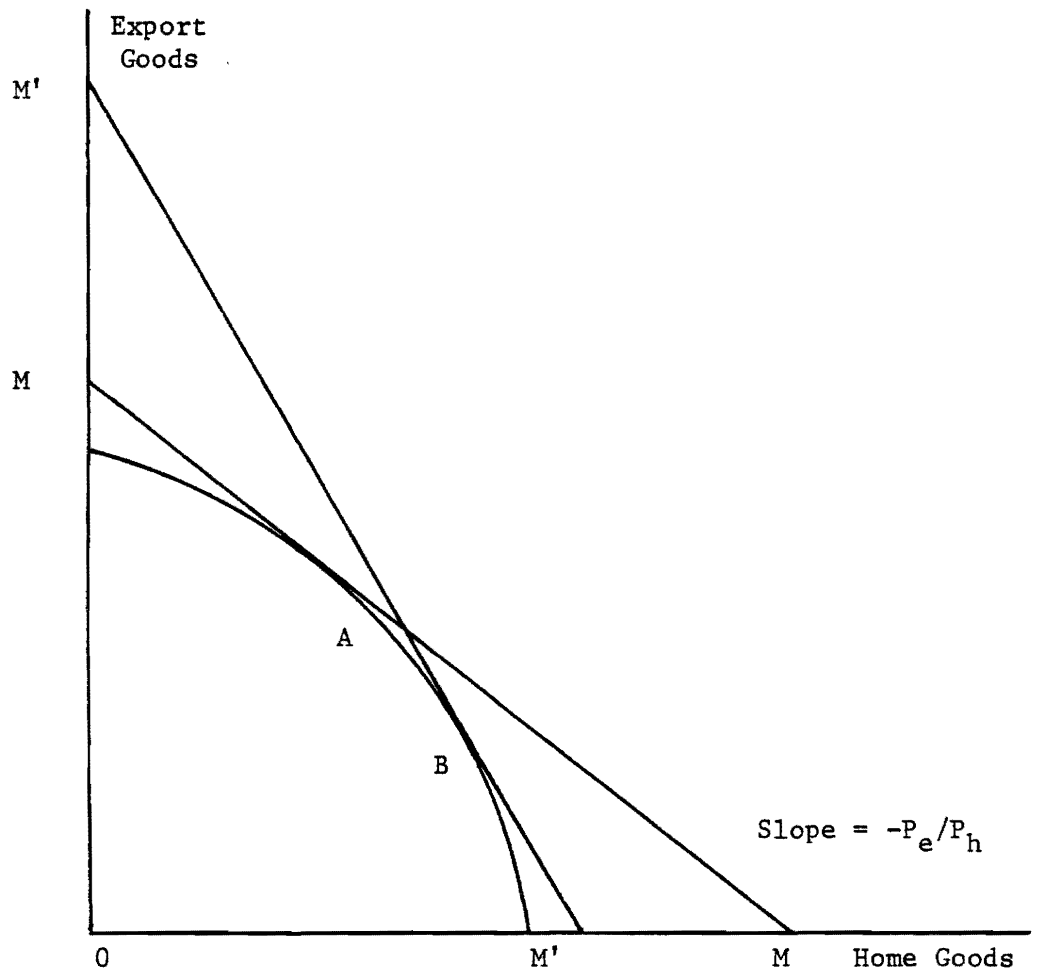

Figure 3.2. The Effects of a Decline in Contract Enforcement

constant, as is assumed here. Instead, there is an increase in the discretionary profits of agency management as they spend less of their time monitoring. Of course there are constraints on the ability of agency management to reduce their monitoring activities as such. For example, the contracting jurisdiction may provide lobbying support for the agency at appropriations time. Thus the agency manager will indeed consider such tradeoffs. In any case, the point here is that there is an incentive for a decline in contract enforcement to take place, thereby creating possible barriers to the extent that public service contracting is carried out. Just as the appropriation of rights in a private, two person economy inhibits mutually advantageous trade, the nonenforcement of public service contracts is seen to inhibit mutually advantageous trade between communities. In this case the agency is, in effect, able to act as a price discriminating monopolist as it rationally monitors the service provision in areas with more inelastic service demands less than in those areas with more elastic demands, assuming that such elasticities are known (or approximated). We should expect such "implicit price discrimination" to lead to higher municipal service costs as well as an allocative inefficiency in the local government market (assuming perfect price discrimination is not practiced).

Thus there is cause for concern over the institutions of public service contract enforcement. One question to pose at this point is: how, exactly, are public service contracts enforced? Furthermore, what constitutes a socially optimal level of enforcement, and how can enforcement institutions be improved (if at all)?

With the above rationale for the importance of contract enforcement, one can view the cost of a particular service to a contracting community as a positive function of the degree of managerial shirking by the service-producing district (or agency) management. Such shirking is defined here as the failure of the agency management to monitor the operation sufficiently to assure that the terms of the contract are adhered to (in terms of price and/or quality level). Thus the cost of a representative public service is represented by the relation

$$C_i = C_i(q_iQ_i, I_i, T, N) \tag{3.3}$$

where C_i = cost of the i^{th} service

q_i = quality of the i^{th} service

Q_i = quantity of the i^{th} service

I_i = price of the i^{th} input

T = state of technology

N = costs due to managerial shirking, as defined above. We further assume that $\frac{\partial C}{\partial N} > 0$.[17]

The gain or benefit to the agency manager from more shirking, in terms of increased discretionary profits will then increase, up to a point, with the amount of nonenforcement, as

$$G = G(N), \text{ with } dG/dN > 0, \tag{3.4}$$

where G = gain to agency manager from his shirking activities.

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[17]See Werner Hirsch, Urban Economics (New York: McGraw-Hill, 1970).

The net social cost of such shirking then is the difference between the gains and losses to shirking, or

$$NC = C(N,z) - G(N) \tag{3.5}$$

where NC = net social cost

z = all other variables in the cost function besides N, which are assumed to be held constant.

It is also quite plausible to assume that the agency manager experiences diminishing returns to his shirking activity and that this is the cause of increasing marginal service cost to the contracting community. Therefore we have the additional conditions that $G'' < 0$ and $C'' > 0$, as well as the relation

$$NC'' = C'' - G'' > 0. \tag{3.6}$$

The Cost of Contract Enforcement

A number of individuals and groups allocate resources toward intergovernmental contract enforcement. To be discussed in more detail in a later section are the activities of both parties involved in service contracting, as well as the courts. Therefore, "enforcement" not only involves the monitoring activities of agency management, but also involves the decisions of the courts as well as the rules regarding punishment for actions that result in the breach of a service contract.

Once again following Becker, a relation between the output of total enforcement activity, designated by E, and the various capital and labor inputs used in enforcement is put forth such that

(3.7) $$EC = f(E), \text{ and } dEC/dE > 0,$$

where EC = enforcement costs.

Thus the less expensive are the resources used in contract enforcement the lower will be the total costs of enforcement.

Next, let us assert that we can approximate an empirical measure of enforcement activity, E, by the relation

(3.8) $$E = pN$$

where p = ratio of $\frac{\text{contract violations punished}}{\text{total no. of contract violations}}$

Substituting (3.8) into (3.7) and differentiating gives us

(3.9) $$\frac{\partial EC}{\partial p} = \frac{\partial EC(pN)}{\partial p} = \frac{\partial EC}{\partial N} > 0, \text{ and}$$

$$\frac{\partial EC}{\partial p} = \frac{\partial EC}{\partial p} > 0 \quad \text{if } pN \neq 0.$$

Therefore, an increase in either the probability of being "punished" for nonenforcement (or "shirking") or the total amount of nonenforcement would increase total costs.

The Supply of Nonenforcement

One can now assert that the rational agency manager practices "nonenforcement" if the expected utility from doing so exceeds the opportunity cost to him. Thus the supply of nonenforcement will logically be a function of the probability of "being caught," (in

this case, being subject to litigation) the penalties involved (if any), and a number of other portmanteau variables. We then have the relation

$$N = N(p,P,\delta) \tag{3.10}$$

where P = punishment

δ = portmanteau term.

It is further assumed here that

$$\frac{\partial N}{\partial p} < 0, \text{ and that } \frac{\partial N}{\partial p} < 0. \tag{3.11}$$

Punishments

The total social costs of the punishment of nonenforcement includes the costs imposed upon the agent(s) responsible for the "offense" as well as the costs imposed upon others such as those who contribute resources to the courts or other enforcement bodies or to the various mechanisms used to implement any fines, etc. This leads to the development of what Becker terms a social cost function, written as

$$s' = bs \tag{3.12}$$

where s' = social costs of nonenforcement

b = coefficient that transforms s into s'.

Optimality Conditions

Next, what is the optimal amount of contractual enforcement, now that the relevant parameters have been introduced, and how does social policy affect this optimum?

In attempting to answer this question, let us develop an analogue to Becker's (social) "loss function," written as

$$L = L(NC, EC, bs, N) \tag{3.13}$$

where L = social loss

EC = enforcement costs

bs = cost of punishments

N = nonenforcement

NC = net social cost, which is = C(N,Z) - G(N) from (3.5).

We further assume, logically, that

$$\frac{\partial L}{\partial NC} > 0; \frac{\partial L}{\partial EC} > 0; \frac{\partial L}{\partial bs} > 0. \tag{3.14}$$

To make the discussion somewhat less general at this point, let us rewrite the loss function as

$$L = NC(N) + EC(p,N) + bPpN. \tag{3.15}$$

The term bPpN is the total loss from punishments, as bP is the loss per "punishable offence" and pN is the number of offenses punished.

Assuming that p is a more relevant decision variable than EC and that b is held constant and greater than zero, P and p become the

only decision variables and their optimal values are found by differentiating L to attain the first order conditions:

$$(3.16) \quad \frac{\partial L}{\partial P} = (NC' + EC')\frac{\partial N}{\partial P} + bPpN_p + bpN = 0, \text{ and}$$

$$(3.17) \quad \frac{\partial L}{\partial p} = (NC' + EC')\frac{\partial N}{\partial p} + EC_p + bpPN_p + bPn = 0.$$

Since N_p and $N_p \neq 0$, we can divide through by them to attain

$$(3.18) \quad NC' + EC' = -bpP(1 - 1/e_p), \text{ and}$$

$$(3.19) \quad NC' + EC' + EC_p(1/N_p) = - bpP(1 - 1/e_p)$$

where $e_p = - \frac{P}{N}\frac{\partial N}{\partial p}$; and $e_p = - \frac{p}{N}\frac{\partial N}{\partial p}$.

The terms on the left side of (3.18) and (3.19) represent the marginal cost of increasing the level of nonenforcement by decreasing P and p respectively. The right sides of the equations depict the corresponding measures of marginal benefits. This is seen graphically in Figures 3.3a and 3.3b. In Figure 3.3, MC_p represents the marginal cost of nonenforcement due to a decline in p. MC_p is the analogue for the case where there is a decrease in P. MR_p and MR_P are the associated marginal revenue curves. The marginal cost of altering the level of nonenforcement through a change in p is less than the marginal cost of doing so by altering P, as seen above, as less resources are required to attain the former result. The equilibrium marginal revenue attained by a changing value of P is also greater than the marginal benefit of altering p. The optimum level of nonenforcement via a decline in p

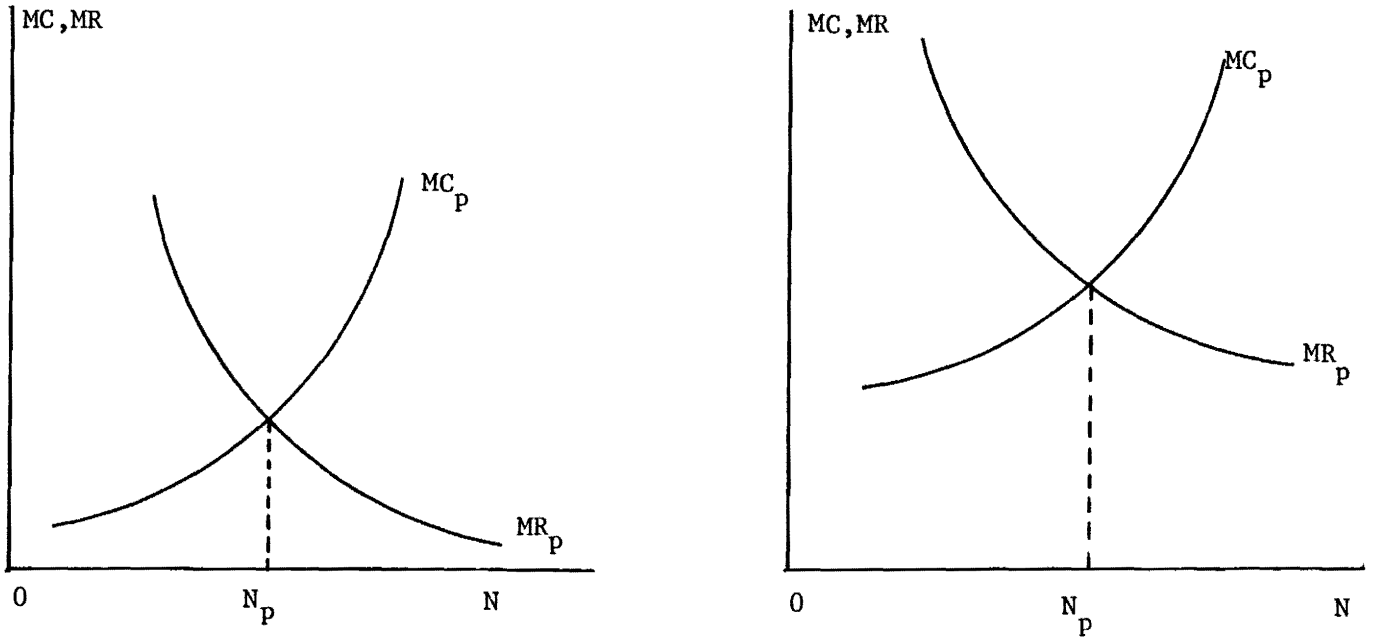

Figure 3.3. Socially Optimal Levels of Enforcement

and P are N_p and N_p respectively. The overall optimum level of nonenforcement can be attained by a horizontal summation of the MC and MR schedules in figures (a) and (b), as seen in Figure 3.4.

Next, what factors will cause shifts in the basic behavioral relations--the marginal benefit and cost of nonenforcement functions?

Of course, an increase in the marginal public service cost (to contracting residents) of a given level of nonenforcement will increase the marginal cost curve as seen below in Figure 3.4, and will necessarily yield a decline in the optimal amount of nonenforcement from ON_o to ON_1.

The optimal value of N decreases, as the optimal values of p and P increase. What factors can cause an increase in the marginal service cost due to managerial shirking? This will depend, at least in part, by the production and distribution technology of the particular service, which will be examined in more detail in a later section.

For a given level of nonenforcement, an increase in the marginal cost <u>to contracting communities</u> of enforcing contracts through the courts, etc. will also yield a decrease in the optimal level of nonenforcement and a consequent rise in the optimal values of p and P. For example, an increase in the cost of litigation to the contracting community would represent such an increase in the marginal nonenforcement cost. The costs of litigation can be viewed as a function of the cost of information necessary to be successful at the litigation. That is, if a contracting community is to bring suit against a service-providing governmental unit, it must invest in a certain amount of information

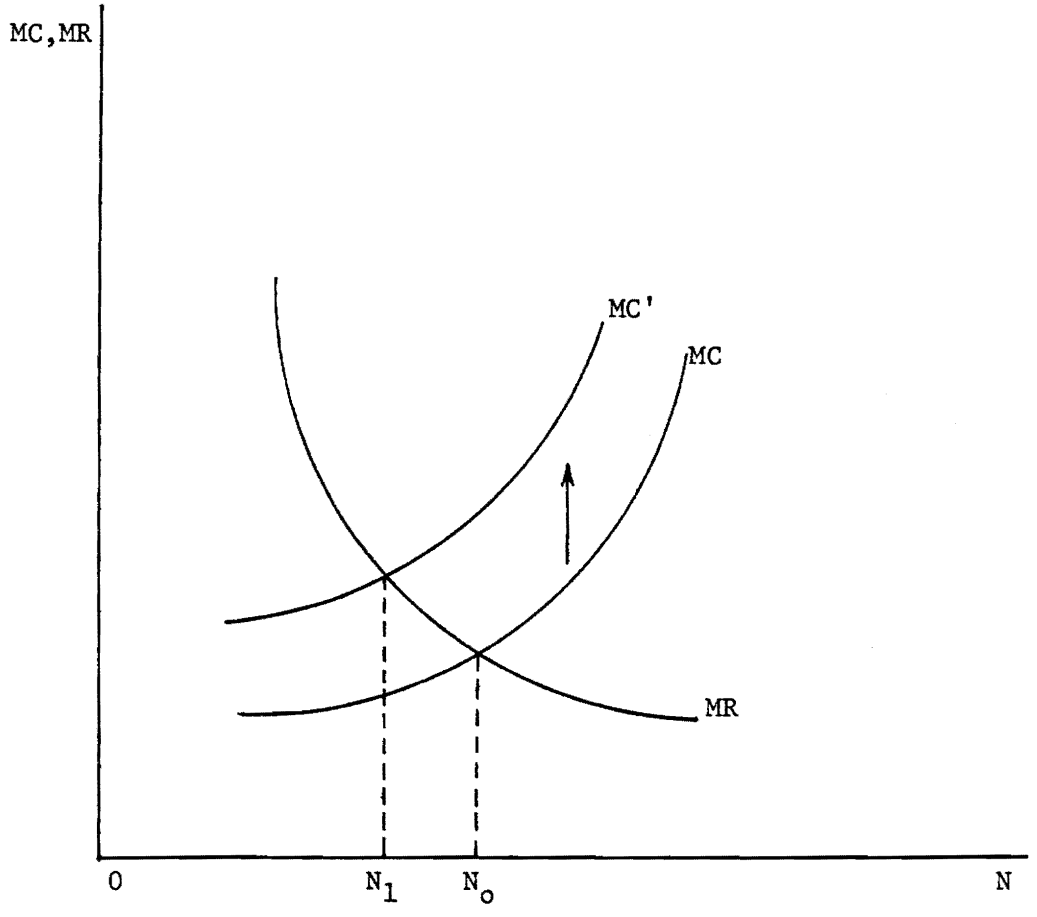

Figure 3.4. Optimum Enforcement

that can be used as evidence that the service-providing unit has, in fact, breached the contract. For example, if a service contract stipulates that the price charged a municipality is to be a function of the cost of providing the service, among other things, the contracting community is interested in assuring that such cost information is not falsified. The community will then monitor the accounts of the service producer. An increase in either the amount of information necessary or the difficulty in attaining such information would indeed increase the marginal costs of enforcement and consequently decrease the optimal amount of information attained.

As will be seen in the next several sections, the legal and bureaucratic framework within which such enforcement activities take place have a significant impact on the cost of enforcement. For example, laws placing the burden of proof upon the contracting community increase the cost of information to them. Similarly, administrative rules constructed by service-producing agency managers may inhibit the ability of individuals to attain information relevant to contract enforcement. It will also be a goal in the next section to further investigate the nature and magnitude of such costs and the incentives they induce.

3.5 Individual Incentives to Enforce Public Service Contracts

We have discussed, thus far, the concept of a socially optimal level of contract (non)enforcement. There is, of course, no reason to believe that the socially optimal amount of contract enforcement will

be forthcoming from existing enforcement institutions. In light of this it is appropriate to shift the discussion to the question of how the level of contract enforcement that is observed actually comes about. That is, what factors affect the private choice calculus of groups of individuals who allocate resources toward the enforcement of service contracts?

The improved enforcement of a service contract is, in effect, yet another local public good that can be purchased by a fiscal club such as a local governmental jurisdiction. The degree of publicness is dependent upon the nature of the good or service purchased, i.e., whether it be water supply, refuse collection, fire protection, etc. and the means of financing it. Improved enforcement of a contract will benefit all of the member of a local fiscal club that consume the service, and is, therefore, nonexcludable. Assuming, as is most often the case, that preferences for public services in our hypothetical jurisdiction are not homogeneous, general fund financing of contract enforcement activities may result in the imposition of negative fiscal externalities on those individuals with little preference for the particular (contracted-for) service. In any case, the provision of this local public good will be provided, assuming a constitutionally imposed majority rule, in the amount preferred by the group of median voters. The median voter, as well as other members of the contracting jurisdiction, will benefit from the improved contract enforcement, as it yields a decline in the effective price of the service and consequently, an increased fiscal surplus. Jurisdictional residents thereby increase

their wealth as the increased fiscal surplus is capitalized into higher property values. The expenditure of public funds on the activity of contract enforcement will then be profitable to the group as long as the present value of the increase in consumer-taxpayer wealth exceeds the cost of investing in contract enforcement. That is, as long as

$$PV_w = \sum_{i=1}^{n} \Delta W_i (1 + r)^{-i} > K$$

where PV_w = present value of increased consumer-taxpayer wealth

r = market rate of interest

K = cost of attaining contract enforcement

n = number of time periods

ΔW_i = change in wealth in the i^{th} period.

Therefore the costs of attaining contract enforcement will depend upon

1) the prices and quantities of resources used, such as court costs, lawyers' fees, funding of research, and

2) the amount of information necessary to attain successful enforcement litigation or legislation. This will depend, to some extent, on the existing legal framework as described above as well as the institutional environment of the metropolitan area in geneal.

A locality's investment in contract enforcement, then, depends upon the expected returns, the resource costs of attaining enforcement, its wealth and ability to borrow, and the institutional environment. The optimal quantity of contract enforcement to be invested in by the

contracting jurisdiction is seen diagrammatically in Figure 3.5. Diminishing returns to group investment in enforcement are assumed, giving the downward sloping marginal benefit curve, MB. The opportunity cost of using public funds for "enforcement investment" rises as more enforcement is invested in, giving rise to the upward sloping marginal cost curve, MC. As is most often the case, the cost of borrowing funds increases with the amount of borrowing, which also implies an upward sloping MC curve. The optimal quantity of investment to the group is, of course, OE_o.

An increase in the cost of resources used to attain enforcement will shift the marginal cost curve upward, producing a smaller amount of investment in enforcement. Another factor that will serve to influence the optimal quantity of enforcement the group invests in is the cost of information. As mentioned above, when a local jurisdiction seeks to have a contract enforced (through grand jury action, etc.) it must obtain a certain amount of information, such as the costs to the service-producing agency of providing the service, evidence of inferior performance standards, etc. Service-producing agency managers, acting in their self interest, then have an incentive to make it more difficult to obtain such information. Evidence that such activities do take place lies in the fact that in Los Angeles County, where service contracting is carried out quite extensively, contracting cities hire accountants to monitor the accounts of Los Angeles County to make sure that cost of service data are not being falsified in an attempt by the county to "gouge" suburban (contracting) residents and, in effect, shirk

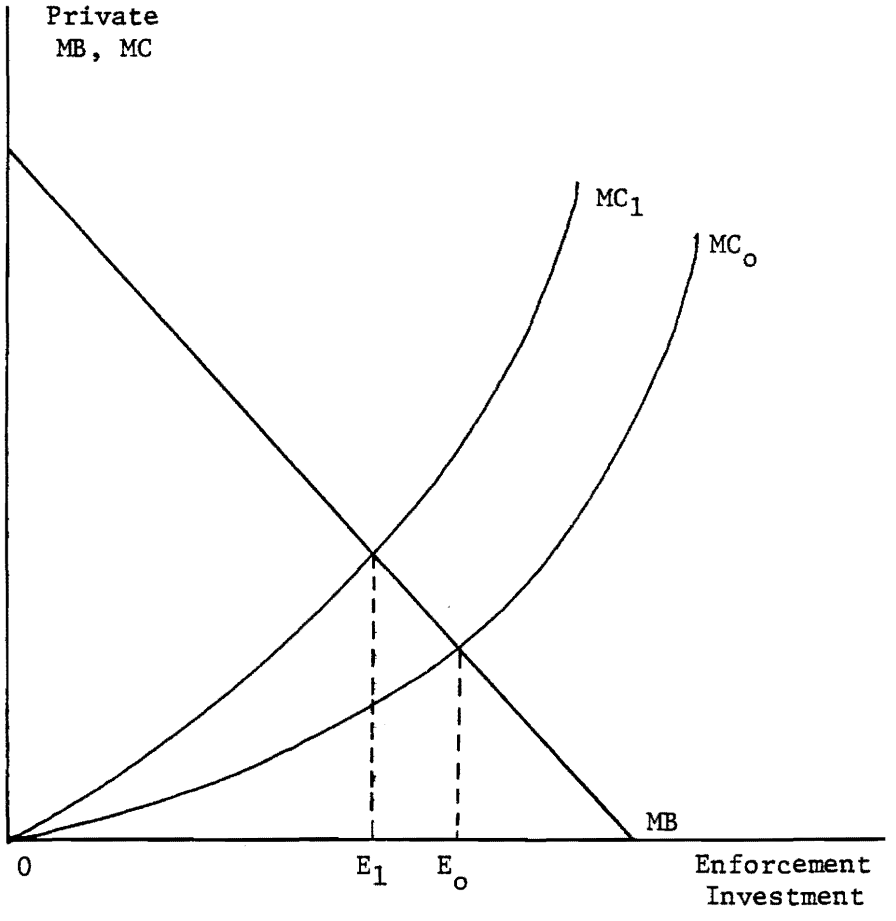

Figure 3.5. Private Investment in Contract Enforcement

their contractual commitment.[18] Thus the activities of the agency can also yield an upward shift in the marginal cost curve to say, MC_1 as seen in figure 3.5. The result is a decline in the optimal quantity of enforcement.

3.6 Bureaucratic Incentives and the Enforcement of Public Service Contracts

As seen in the previous section, the act of seeking the (improved) enforcement of a public service contract yields the provision of a local public good, even if the particular good or service that is collectively provided happens to be of a more private nature. That is, the enforcement of a service contract that results in an increase in public service quality does, in fact, result in the provision of a public good, namely, improved service quality.

If the local contractor-politician is not perfectly benevolent, but, rather, acts in his own self interest, the next question to pose is under what conditions does the local politician in fact have an incentive to expend time, effort, and public financial resources on increased contract enforcement?[19]

In answering this question consider, once again, the actions of the local political decision maker who is acting as a spokesman for a local consumers' cooperative in his negotiation of public service

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[18]Stoner, "Interlocal Cooperation."

[19]Assuming that such an activity would yield an increase in the fiscal surplus in the political decision maker's jurisdiction.

contracts. Assume that this particular public manager presides over a jurisdiction that is one of many in a fragmented metropolitan area and contracts for, say, water supply from a nearby water district. Assuming further that consumers are dissatisfied with the quality of contracted-for services, for whatever reason (i.e., inadequate water pressure, alleged price gouging, having supplies cut short during periods of shortage, etc.), and demand improved enforcement of the contract terms that they feel have been breached or are unfair, what incentives does the local politician have to pursue such enforcement? He can do this either through negotiation or formal litigation. In the former case, the cost to him (or her) of partaking in such action is merely the opportunity cost of his time. In the latter case the cost will most likely involve the additional expenditure of public resources (on lawyers' fees, etc.).

If the decreased service quality (due to bureaucratic shirking by the contractor-politician, for example) yields more costly service(s) and consequently, an increase in the (tax) price paid, the quantity of residency demanded in that jurisdiction will decline. This comes about through the law of demand, as the price of residency in a local jurisdiction is determined by the tax price of the bundle of local public goods and services provided there plus the price of housing. Next, assuming for simplicity that consumer-taxpayers have perfect information, a further result will be the capitalization of such tax price increases into property values, as some individuals migrate out to jurisdictions with more favorable levels of fiscal

surplus. The decline in property values then provides the (informational) basis on which a political entrepreneur could make a take-over bid by running on a platform of improved service provision. The local public manager then has the incentive to cater to the service demands of his constituents (i.e., improved contract negotiation and enforcement) if he wants to be reelected.[20]

Alternatively, consider the situation in which the contracting jurisdiction is a consolidated governmental unit and we assume, not unrealistically, that migration costs are prohibitively high. That is, the cost of migrating to another metropolitan area outweigh the benefits that could be attained in terms of increased fiscal surplus. In this case a similar increase in the tax price paid by consumer-taxpayers as a result of the above-mentioned decline in service quality will not yield a decline in the quantity of residency demanded. Consequently, the alteration in land values that took place in the previous example will not come about. As a result, the market signal upon which a possible political take-over bid can be based is nullified. The local public manager then has less of an incentive to expend his resources (in terms of time, effort, and money) on pursuing improved contract enforcement.

In essence, the point to be made here is that with existing political institutions and the rational behavior of the local politician described here, the articulation of public demands for improved service

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[20]Under majority rule the local politician will cater to the preferences of a majority of his constituency.

quality (via contract enforcement) is more likely to come about in a metropolitan setting which consists of a number of local governmental units, as opposed to a consolidated metropolis.

Monitoring the Service-Producing Agency

The next set of actors that allocate resources toward the enforcement of public service contracts, as mentioned earlier, is the management of the service-producing agency or bureau. It is the agency or district management that is responsible for the actual monitoring of the production and distribution of contract services. One goal here is to examine the incentives that local public managers have to partake in such monitoring activities, given existing political institutions. In doing this the possible ways in which local public managers can be induced to improve their monitoring activity, thereby yielding both increased benefits due to contracting and eventually, greater incentives on the part of potential contracting communities to engage in mutually advantageous trade through contracting will be deduced.

The forthcoming discussion will attempt to deal with these issues through the application of a number of Peltzman's ideas on "pricing for political support."[21] A major hypothesis made (and tested) by Peltzman is that "if public enterprises benefit voters to secure political support, there is no reason to expect them to benefit non-voters.

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[21]Sam Peltzman, "Pricing in Public and Private Enterprises: Electric Utilities in the United States," Journal of Law and Economics (April 1971):109-47.

Therefore, prices should generally be higher to non-voters than to voters."[22] Special districts (and other units of local government) that sell services to other jurisdictions often do, in fact, charge higher prices to those non-voting (for the agency's activities) customers. There are, of course, a number of non-political reasons for charging higher prices as such. The actual distribution costs of service extension may be higher, for example. Also, charging higher prices to outlying communities may be part of a rational urban fiscal strategy aimed at avoiding the outflux of an urban area's population base, a migration induced by favorable service prices.[23]

In any event, the purpose here is to show how the same incentives that cause public enterprise managers to charge higher explicit prices to non-voting customers induces them to monitor the production and distribution of contract services to non-voting customers less than to voting customers. The end result of this activity, as will be seen shortly, is that even though public service contracts are characterized by contractually set explicit prices for a period of time, alterations in service quality can result in alterations in the real price paid for contract services.

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[22]Peltzman, "Pricing," p. 114.

[23]See Gene E. Mumy and Steve H. Hanke, "Optimal Departures from Marginal Cost Prices for Local Public Services," in Paul B. Downing, Editor, Local Service Pricing Policies and Their Effect on Urban Spatial Structure (Vancouver: University of British Columbia Press, 1974):309-40; and J. M. Buchanan, "Principles of Urban Fiscal Strategy," Public Choice 8 (Spring 1970):1-16.

Pricing for Political Support and Contract Enforcement

Assume that a special district derives political support for its activities by charging lower prices to voting constituents than to non-voting customers, i.e., contracting communities. The lower the price charged, the greater the political support gained. From this behavioral assumption one can also deduce that the service-producing agency management has more of an incentive to monitor the production and distribution of services to consumer-voters than to non-voting consumers of its service(s) for the following reason. The marginal opportunity cost of the public manager's time spent monitoring service provision is the value to him of putting that time to its most highly valued use--perhaps some combination of campaigning, catering to constituents or just attaining discretionary profits in terms of leisure time.[24] The marginal benefits due to monitoring are measured in terms of the expected votes attainable (in support of district activities). These votes come, it is assumed, as a result of service price decreases stemming from improved monitoring. On the basis of gaining voter support, then, the district manager has less incentive to monitor the provision of services to non-voting, contracting jurisdictions. Therefore, assuming that the marginal cost to the district manager to be the same for, say, an hour spent monitoring service provision in either market, the lesser amount of marginal benefits attained by monitoring

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[24]Peltzman, "Pricing," p. 115.

service provision to the contracting community implies that the optimal amount of monitoring (to the manager) will be less in that market.

With respect to the welfare of the contracting community, one can conjecture that such a lack of monitoring will yield an increase in the effective price paid for the service(s), even though the actual price is contractually set for a period of time.

The effect of a decline in the monitoring of service provision is as follows. Since the physical quantity of a particular contracted service is fixed for a set period of time, the result of a decline in monitoring is a decline in the quality of the service and consequently, an increase in the effective price as mentioned earlier.

In essence, a redistribution of wealth occurs, the wealth being transferred from the consumer-taxpayers of the contracting community to the agency management. This redistribution is represented below in Figure 3.6. In that diagram, D is the demand curve for a particular contracted service, the price of which is measured on the vertical axis by P. On the horizontal axis is measured the quantity of service, Q. The decline in monitoring and subsequent increase in the price of the service is represented by the increase in the price from P to P'. The end result is a decline in consumers' surplus from the original amount of ABP to the lesser amount, ACP'. The change in consumers' surplus, P'CBP, is transferred to agency managers as discretionary profits.

It has been seen how the rational behavior of the management of service-producing public agencies such as special districts is characterized by a lack of incentive to monitor the provision of services to

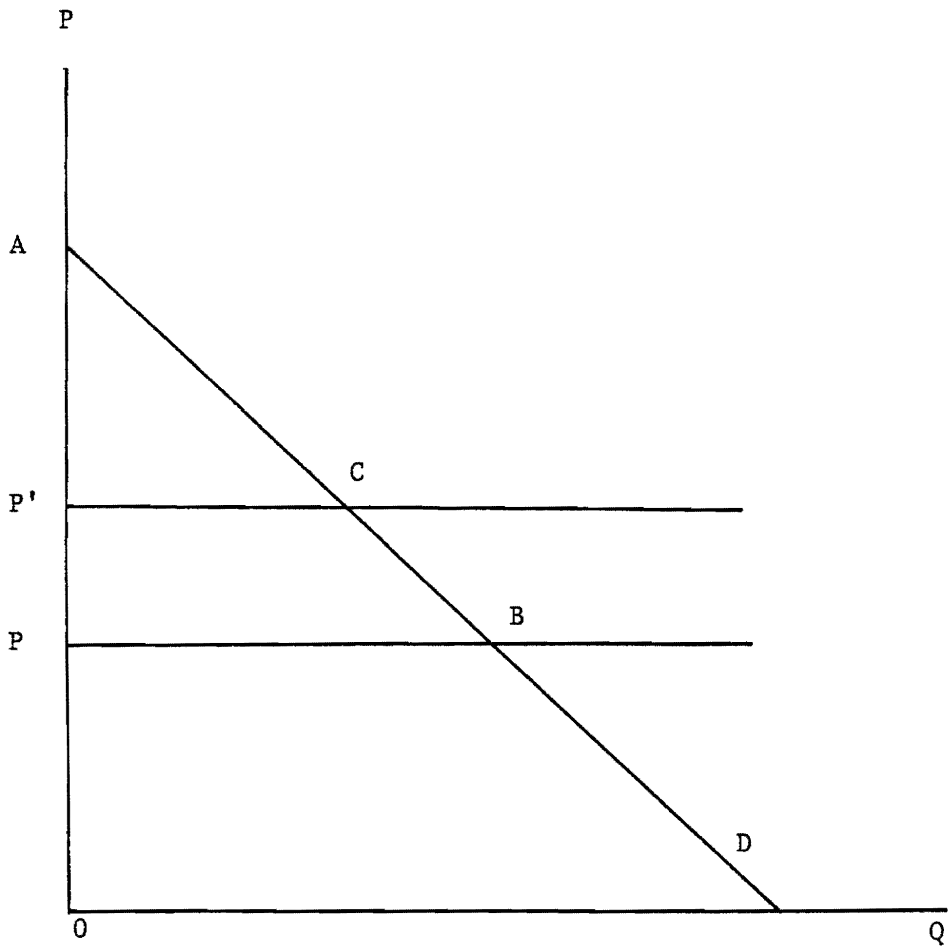

Figure 3.6. Decline in Consumer Surplus Due to Bureaucratic Shirking

non-voting, contracting communities. Such shirking represents a redistribution of wealth from contracting communities to agency management as seen above. In many instances, this is construed as a breach of a service contract, and the result is a clash between service providers and contracting communities over the quality level of a particular service. Furthermore, many municipalities are hesitant to promote or adopt the contracting mode of service provision for exactly this reason, as they feel that "contracting is a relationship between customer and monopoly supplier."[25] And, that

> . . . the (contracting) suburbs have no representation on the central city agency which provides the service. When clashes arise over rates and service, or supply (of water, in this example) during periods of shortage . . . , the (service-producing) central city (agency) . . . usually prevails.[26]

The courts have, in the past, gone both ways in cases concerning quality discrimination between residents of service-providing municipalities and contracting non-residents.[27]

3.7 Practical Institutions for Public Service Contract Enforcement

Now, in light of the above deduction that the rational behavior of service-producing agency managers, given existing political

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[25]ACIR, Intergovernmental Responsibilities for Water Supply and Sewage Disposal in Metropolitan Areas (Washington, D.C.: ACIR, 1962):36.

[26]Ibid. Terms in parentheses added.

[27]Frank S. Sengstock, Extraterritorial Powers in the Metropolitan Area.

institutions, leads eventually to shirking in the monitoring of contract service provision, one can infer that the emphasis that some authors have placed on the "control of politicians" has not been misplaced.[28] That is, if it is not desirable for contracting communities to permit the bureaucratic management of service-producing agencies (such as special districts) to substitute their own wealth for that of the owners of contracting governmental units, then some means of control may be desired. Theoretically, one method of "control" here would be (in the limiting case) to impose the optimal level of fine, as discussed in section 3.4, on the agency management, if found to be responsible for the breach of contract. The implementation of such fines would presumably be carried out through the courts. But there are a number of practical problems to be considered if not eventually surmounted. First, existing law regarding the regulation of public service provision often prohibits the use of such fines. Within the body of the law of municipal corporations is found the following statement:

> Though the regulation of . . . the terms and conditions of contracts . . . is usually in the form of an ordinance, it is nevertheless contractual or administrative in character and not enforceable by criminal penalties.[29]

Nevertheless, in light of increased dissatisfaction with the provision of municipal services (in terms of quantity, quality, and price) it is

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[28]See, for example, Robert J. Barro, "The Control of Politicians: An Economic Model," Public Choice (Spring 1973):19-42.

[29]See Mitchies' Jurisprudence "Municipal Corporations," p. 50.

expected that the plaintiffs in municipal service suits are likely to receive not only "injunctive relief" (from inferior services, etc.) but also "sizable monetary judgments" in the future."[30] This expected trend is exemplified by the case of "Fire v. City of Winner," where the plaintiffs sued not only for improved services but also sued the municipal authorities for damages in excess of $12,000. In this particular case the bid for damages was not won but the ex ante cost imposed upon the municipal officials caused them (not unexpectedly) to improve substantially the quality of services provided to the group of plaintiffs. The court, in fact, stated that

> . . . subsequent to the commencement of the law suit . . . While there may have been some neglect on the part of the City of Winner with respect to . . . adequate drainage ditches, street lights and fire hydrants, the deficiencies were corrected prior to the trial of this matter . . . .[31]

Thus the courts are indeed capable of providing a mechanism that can effectively enforce public service contracts by introducing market forces, i.e., altering the cost of bureaucratic shirking, etc. and subsequently hinder the ability of local political decision makers to attenuate the rights of contracting communities. Another means of monitoring bureaucratic shirking through the introduction of market forces into the local governmental environment is by the advocacy of

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[30]D. W. Fessler and C. N. May, "The Municipal Equalization Suit: A Case of Action in Quest of a Forum," in John Jackson, Editor, Public Needs and Private Behavior in Metropolitan Areas (Cambridge, Mass.: Ballinger, 1975):195.

[31]See 352, Federal Supplement 925 (D.S.D. 1972).

free entry into the local government market. That is, with free entry, i.e., no restrictions on the growth of special districts (or municipal corporations in general), service providers have less incentive to shirk, as in a competitive setting dissatisfied service customers can merely withdraw their "business." In a more monopolistic local governmental setting, on the other hand, the service provider has more of an incentive to shirk as the withdrawal of his customers is less likely in light of the absence of alternatives to monopoly provision.

Next, some further practical aspects of contract enforcement will be examined by surveying the design of a number of types of service contracts currently utilized.

Performance Provisions of Public Service Contracts

As seen above, a major reason for a community's dissatisfaction with (contracted-for) services is the decline in quality stemming from lax monitoring by local politician-bureaucrats. Also, the result of a quality decline, as seen in the discussion of equations (3.20) to (3.22), is an increase in the effective price paid.

Since there are two main "policy parameters" that can be altered to induce bureaucratic compliance with contract standards, penalties and the probability of being fined, clearly defined service performance standards within public service contracts will induce less shirking by local bureaucrats. The reason for this is that the existence of measurable performance standards increases the probability of losing

a municipal service suit, as judgment in such a case can be made on the basis of these performance measures. Examples of such measures are: frequency of refuse collection, water pressure, police patrol response time, etc. An additional advantage of specifying a number of specific performance standards in a public service contract is that a contracting community can articulate its demands quite precisely. For example, consider a comparatively small community comprised predominantly of elderly people which contracts for police services. They may choose performance standards pertaining to juvenile delinquent crime against the elderly, but may care less about gambling or other such police-regulated activities that affect them less. In doing this they provide greater incentive to the service-providers to provide the desired quality and quantity of a particular service.[32]

Of course, public service contracts vary widely in their design. Nevertheless, it is still useful to examine a sample of such contracts to discern

1) the degree to which performance standards have been emphasized, and

2) the prospects for a more efficient institutional design of service contracts.

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[32]It is also worthy of mention here that a fragmented metropolitan area is more conducive to the attainment of this advantage than is a consolidated metropolis. The larger the collective consumption unit, the higher the levels of political externalities and decision making costs. Consequently, homogeneous groups of individuals will find it more difficult to articulate their demands in this way.

First, consider a sample of contract terms in the municipal residential refuse collection in California taken by Bennet C. Jaffee.[33] In his sample of contracts in 100 municipalities, Jaffee found that 62 contracts contained clauses specifying performance standards, 37 were without, and one was too nebulous to decide. Another interesting statistic is that a mechanism for dealing with service customer complaints was only provided by 31 percent of the municipalities surveyed. Furthermore, only 15 percent of the municipalities acknowledged the existence of penalties for failure to resolve complaints within a given time period. Additional information related to the obligation of service-producers which are as shown in Table 3.2 (according to the Jaffee survey).

As seen here, a substantial majority of the contracts do not provide much of an incentive to respond to complaints pertaining to service quality. Also, without the right to monitor the service-producing agency's books, the cost of contract enforcement to the contracting community, in terms of avoiding "price gouging," becomes greater. That is, if the contracting community wants to monitor the contractor's accounting system, for example, as is quite frequently done, it must pay the accountants' fees, etc. as well as the cost of attaining the right to monitor the contractor's books--either by negotiation with the contractor or litigation.

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[33]B. C. Jaffee, "Contracts for Residential Refuse Collection," in E. S. Savas, Editor, The Organization and Efficiency of Solid Waste Collection (Lexington: Lexington Books, 1977):153-68.

Table 3.2. Contractor Obligations

Contract Term	Yes	No	Don't Know
Prescribed time period for resolving consumer complaints	31	68	1
Penalty for failing to resolve complaints in a given time	9	90	1
Provision giving contracting community the right to audit the contractor's books	23	72	5
Provision requiring compliance with State and Municipal laws	48	48	4
Provision requiring performance bond	77	22	1

Another piece of information coming from this survey that is useful to us concerns the extent to which "enforcement clauses" are included in such contracts (consider Table 3.3).

In this instance only about one-fourth of the municipalities had explicit penalties for breach of contract written into the agreement. Enforcement via penalties, therefore, becomes much more costly to the contracting community. We also note that a mere 27 percent of the contracts surveyed specified a procedure for conflict resolution. This, too, makes enforcement more costly as the alternative to "informal" conflict resolution, formal litigation, involves court costs, lawyers' fees, the cost of gathering information to be used, etc.--costs that can overwhelm any perceived benefits of litigated contract enforcement.

Only 17 percent of the municipal contracts sustained all the remaining terms of a contract if one term became void. Once again, the absence of an enforcement provision such as this increases the enforcement costs to contracting communities. That is, "voiding" one contract term, for whatever reason, then entails renegotiating another contract in its entirety if contract services are to be sustained. Such bargaining costs could be avoided with the existence of a provision such as the one mentioned here.

Next, consider a "model contract form" that has been developed and implemented by the League of California Cities.[34] This model is

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[34]League of California Cities, Intermunicipal Cooperation Through Contractual Agreements (Sacramento: July 1963):11-27.

Table 3.3. Enforcement Clauses

Contract Term	Yes	No	Don't Know
Provision for liquidated damages for breach of contract	27	71	2
Specified procedure for conflict resolution relating to contract	27	71	2
Provision that if one contract term is void, remaining terms sustained	17	78	5

found in its entirety in the appendix to this chapter. For now, it is important to note a number of specifications of this model regarding service quality, performance, and enforcement.

First, there is no mention of the value of explicit performance standards. However, the model contract does state that

> . . . the level of service shall be the same basic level of service that is and shall be hereafter, during the term of the agreement, provided by First Party (service provider) within their corporate limits.[35]

Thus the model contract <u>does</u> state that the quality of services is to be equalized in the "home" <u>and</u> contracting jurisdiction, but, as seen in the following quotation taken from the same paragraph, the determination of such quality standards is done, contractually, <u>by the service-producing agents</u>:

> Rendition of service, standards of performance, discipline of officers and employees, and other matters incident to performance of services and control of personnel shall remain with the First Party.

In essence then, even though the contract calls for service equalization, the decision as to what constitutes "equivalent (to the home jurisdiction) quality of service provision" is made by the service-producing agents. And this gives the service provider considerable leeway in adopting performance measures that may or may not adequately measure the quality of service provided. As a simple example, consider the adoption of a performance measure for police

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[35]League of California Cities.

services. The contractor-politician may prefer to adopt "miles patrolled" as his performance criterion. However, a criterion more advantageous to the contracting community might be an index of the crime rate, or changes in the crime rate. The former criterion would give the service provider much more discretion in his monitoring.

Another portion of the California model contract design explicitly grants the right to resolve disputes over the quality of service to the service-providing agent, as seen in the following quotation taken from the model contract.

> In event of dispute between the parties as to the extent of the duties and functions to be rendered hereunder, or the level or manner of performance of such service, the determination thereof made by the chief administrator of First Party shall be final and conclusive.

Thus the League of California Cities has suggested that the monitoring of service quality by contracting jurisdictions be eliminated completely! This may be explained by the fact that most of the members of the League of California Cities are the chief administrators of service-producing governmental units.

3.8 Conclusions

One main conclusion that can be drawn from the theoretical analysis of this chapter is that the institutional environment within which the contracting system exists influences the ability of communities to realize the efficiency potential of contracting. This conclusion is drawn for a number of reasons. First, and most obviously, the efficiency advantages of contracting for, say, sewage treatment (while

maintaining "in-house" collection and disposal), for example, are not attainable if a sewage treatment district cannot be formed. That is, an institutional environment that makes it difficult to form such districts does eliminate some of the potential mutually advantageous gains from trade due to contracting. More will be said of these "types of institutions" in the next chapter. Second, the local governmental institutional environment can have an effect on the incentives of local public managers that influences the extent to which contracting takes place. It was first illustrated how, in a more competitive local governmental setting, public managers have more of an incentive to seek more efficient means of service provision through contracting. They do this in their role as the "spokesmen for local consumer-cooperatives." Also, with respect to the enforcement of public service contracts, it was seen that by making the local governmental institutional environment more competitive, service producers had more of an incentive to monitor service contracts. Also, in this instance, the local contractor-politician was seen to have more of an incentive to expend public funds on improved contract enforcement when demanded by his constituency.

The third reason for which the above-mentioned general conclusion has been drawn is as follows. The importance of performance standards in service contracts has been discussed. It was seen that well defined performance standards, when possible, were a means of establishing the contracting community's rights in the service(s) provided. The establishment of such rights is posited to provide more of an incentive for

municipalities to partake in contracting. It was also seen, however, that certain enforcement mechanisms, i.e., standards, penalties, etc. were absent from many of the contracts surveyed. This resulted in making contract enforcement a more expensive activity for municipalities to partake in, thereby diminishing the optimal level of enforcement. As many (if not all) of the terms of public service contracts are created in a bargaining situation, one can infer that in a more competitive local governmental environment, contracting municipalities will be better able to bargain for the establishment of such provisions.

This chapter has provided a theoretical scenario for the statement of the proposition that the promotion of competition in the local government industry by "allowing" the growth of special districts increases the ability of the contracting system to yield efficiency gains in the provision of local public services. A test of this proposition will be provided in Chapter 5.

Prospectus

The role of special districts in the efficient provision of local public services entails two organizational arrangements for the provision of municipal services. First, districts can sell their service(s) to contracting jurisdictions as discussed in the present chapter. Second, as mentioned earlier, districts are a means of establishing a "collective consumption-production unit" that can yield a more efficient provision of services to its members. One thing that has not

been discussed too extensively thus far is the body of literature that claims that such efficiency gains will not be forthcoming. Therefore, the next chapter will document and evaluate these claims. In doing this, a point of departure from which to enter the succeeding chapter, Chapter 5, is provided where some empirical evidence pertaining to the ability of special districts to attain production, distribution, and consumption efficiency in the provision of local public goods and services will be brought forth.

APPENDIX

MODEL CONTRACT FORM--CALIFORNIA

(Same for all contracts)

THIS AGREEMENT made and entered into this ___ day of _____, 19 ___ by and between the CITY of _____, hereinafter referred to as "First Party" and the CITY of _____, hereinafter referred to as "Second Party" both of whom understand and agree as follows:

(Underlined portion to be changed according to subject of agreement.)

WHEREAS, the parties hereto have the common power to perform general services within their corporate limits; and

WHEREAS, the Second Party is desirous of contracting with First Party for said services; and

(Same for all)

WHEREAS, First Party is agreeable to rendering such services under the terms and conditions hereinafter set forth; and

(Same for all)

WHEREAS, such contract is authorized by the provisions of Title I, Division 7, Chapter 5 of the Government Code of the State of California which authorizes the joint exercise by agreement of two public agencies of any power common to them:

PURPOSE OF AGREEMENT

1. This agreement is for the purpose of performance by First Party of all functions of Second Party as hereinafter provided except those services which are now or may hereafter be made the subject of separate and special agreements between the parties hereto.

The purpose of this agreement shall be accomplished in the manner hereinafter set forth.

Administrative Agent

2. First Party is designated as the party to administer this agreement by and through its departments and officers.

Cost Computation

3. Second Party shall pay to First Party the entire cost to the First Party of performing each function or service called for herein, including salaries and wages of all employees engaged therein, supervision over such employees while so employed, a prorated portion of departmental overhead, clerical work, office supplies, depreciation on machinery and equipment, traveling expense, including mileage of employees and all other costs and expense incidental to the performance of each such function.

In computing the cost of machinery and equipment, the full cost to First Party of rented machinery and equipment and any operator furnished therewith, and a reasonable rental rate on machinery and equipment owned by First Party shall be included.

Duties and Level of Service

4. No officer or department of First Party shall perform for Second Party any function not within the scope of the duties of such officer or department in performing the same kind of services for First Party. Except as otherwise hereinafter provided for, the level of service shall be the same basic level of service that is and shall be hereafter, during the term of the agreement, provided by First Party within their corporate limits. Rendition of service, standards of performance, discipline of officers and employees, and other matters incident to performance of services and control of personnel shall remain in First Party. In event of dispute between the parties as to the extent of the duties and functions to be rendered hereunder, or the level or manner of performance of such service, the determination thereof made by the chief administrator of First Party shall be final and conclusive.

Fund Appropriation

5. No service shall be performed hereunder unless Second Party shall have available funds previously appropriated to cover the cost thereof.

Service Requirement

6. No service shall be performed hereunder by First Party unless such service shall have been requested in writing by Second Party on order of the city council thereof or such officer as it may have designated, and each such service shall be performed at the times and under circumstances which do not interfere with the performance of regular services and operations of First Party within its own corporate limits.

Office or Facility

7. Whenever both parties mutually agree as to the necessity for any such First Party officer or department to maintain administrative headquarters or service facility such as a branch library or fire station in said corporate limits of Second Party, said Second Party shall furnish at its own cost and expense all necessary office space, furnishings, furniture, office supplies, janitor service, telephone, light, water and other utilities.

In the event an administrative office or service facility is maintained in corporate limits of Second Party for use by any officer or department of First Party such offices or facilities may be used by officers or departments of First Party in connection with the performance of their duties in territory outside of said corporate limits of Second Party provided, however, that the performance of such outside duties shall be at no additional cost to Second Party.

Employee Status

8. Persons employed by First Party in the performance of services and functions pursuant to this agreement shall have no claim to pension, civil service, or other employee rights granted by Second Party to its officers and employees.

Cooperation

9. To facilitate performance under this agreement, First Party shall have full cooperation and assistance from Second Party, its officers, agents, and employees.

First Party Liability

10. First Party, its officer and employees, shall not be deemed to assume any liability for the negligence of Second Party. Second Party shall hold First Party harmless from, and shall defend First Party and its officers and employees thereof against any claim for damages resulting therefrom.

Second Party Liability

11. Second Party shall assume no liability for the payment of salary, wages, or other compensation to officers, agents or employees of First Party performing services hereunder for Second Party or any liability other than that provided in this agreement.

Second Party shall not be liable for compensation or indemnity to officers or employees of First Party for injury or sickness arising out of performance of this agreement.

Records

12. Each officer or department of First Party performing any service for Second Party under this agreement shall keep reasonably itemized and, in detail, work or job records covering the cost of all services performed, including salary, wages, and other compensation for labor, supervision and planning plus overhead, the reasonable rental value of all machinery or equipment owned by First Party, the cost of all machinery and supplies furnished by the First Party, reasonable handling charges, and all additional items of expense incidental to the performance of such function or service.

Billing

13. Each officer or department of First Party performing any service hereunder shall render to Second Party at the close of each calendar month an itemized statement covering all services performed during said month, and Second Party shall pay First Party for such services within 20 days after receipt of such statement. If such payment is not received by First Party within 30 days after billing, First Party may satisfy such indebtedness from any funds of Second Party on deposit with First Party without giving further notice fo Second Party of its intentions to do so.

Term of Contract

14. The contract shall become effective on the date mentioned above and shall run for a period ending _____, 19____, and at the option of the city council of Second Party, with the consent of the city council of First Party shall be renewable thereafter for successive periods of not to exceed five years each.

Renewal

15. In event Second Party desires to renew this agreement for any succeeding five-year period, its city council, not later than December 31 next preceding the expiration date of this agreement, shall notify the city council of First Party that it wishes to renew the same, whereupon city council of First Party not later than the last day of January, shall notify city council of Second Party in writing of its willingness to accept such renewal for an additional five-year period or such other term as it deems advisable, otherwise such agreement shall finally terminate at the end of such five-year period.

Notwithstanding the provision of this paragraph, either party may terminate this agreement as of the first day of July of any year upon notice in writing to the other party of not less than two (2) calendar months prior to the date of termination.

Property Disposal

16. In the event of termination of this agreement for any cause, all property acquired under this agreement by First Party shall remain in the possession and ownership of First Party unless payment therefor is made by Second Party to First Party, and all property acquired under this agreement by Second Party shall remain in the possession and ownership of Second Party unless payment therefor is made by First Party to Second Party.

Contract Control

17. This agreement is designed to cover miscellaneous and sundry services which may be supplied by First Party and the various departments thereof. In the event there now exists or there is hereafter adopted a specific contract between the parties to this agreement with respect to specific services, such contract with respect to such services, shall be controlling as to the duties and obligations of the parties.

Chapter 4

ALTERNATIVE INTERPRETATION OF DISTRICT GROWTH CONTROLS

4.1 Introduction

The purpose of this chapter is to provide a theoretical framework with which to answer the following question: What effect has the growth (in numbers) of special districts had on the efficiency of local public service provision?

First, a number of views presented by parties that can be labeled as "anti-district forces" will be presented. These groups are embodied in such organizations as the ACIR, Committee for Economic Development, National Municipal League, and numerous local groups. As will be seen, the arguments against the increased use of districts as municipal service providers that have been made by groups such as these have led to the adoption of laws in seven states that have had the effect of curbing the growth of special districts.

In section 4.3 an alternative, economic explanation for the existence of such district growth-restricting legislation is developed. In essence, such restrictions are seen as barriers to entry into the local government industry. Therefore, it is inferred that district growth restrictions are a means of maintaining quasi-rents earned by existing local governmental units.

The final section will briefly summarize the two alternative explanations or reasons for district growth restrictions, and then

describe the hypotheses derived therefrom that will be tested in the next chapter, namely, if the proliferation of special districts induces inefficient and costly local government operations (i.e., service provision), then growth controls that reduce the growth of special districts in an urban area should result in more efficient, less costly provision of municipal services. The general alternative to this hypothesis is that such controls make existing local government a more monopolistic one, where there is less incentive for local public managers to minimize the costs of providing municipal services.

The derivation and exact statement of these hypotheses will be made shortly, but for now the discussion turns to an outline of the reform proposals.

4.2 Reform Proposals

As mentioned in Chapter 1, the "reform tradition," a set of ideas about how to structure local government, is the source of many ideas pertaining to the role of special districts in the organization of local government. The basic proposition put forth by the reform tradition is that the most rational form of local government organization is one that is centralized. It is thought that a most efficient administrative system is one that is served by one central administrative body that is supposedly capable of planning and coordinating the activities under its realm better than a less centralized administration.

A fragmented local government system is viewed as being unplanned, uncoordinated, inefficient, and unresponsive.[1]

This view is exemplified by the following quotation of the ACIR on the subject of municipal water supply.

> A small number of community water utilities is preferable to a multiplicity of uncoordinated systems . . . A large number of relatively small water companies or municipal departments is often the result of a lack of coordinated policy for community water resources.[2]

More generally, the ACIR further claims that

> . . . special districts . . . inhibit efforts of district consolidation or annexation which would provide more effective and more efficient service to the whole area.[3]

In evaluating the overall efficacy of special districts in providing municipal services, the ACIR has concluded that

1. special districts are an uneconomical means of providing services,
2. districts distort the political process through which the competing demands for the local revenue dollar are evaluated and balanced.
3. special districts increase the costs of government services,
4. the multiplicity of districts prevents citizens from understanding them, rendering local government unresponsive.[4]

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[1]ACIR, The Problem of Special Districts in American Government (Washington, D.C.: ACIR, 1964).

[2]ACIR, Performance of Urban Functions: Local and Areawide. Report M-21 (Washington, D.C.: September, 1963):206.

[3]ACIR, "The Problem of Special Districts in American Government," p. 50.

[4]Ibid., pp. 74-5.

Having reached these conclusions which are based on their approach to government, one that assumes a centralized local government administration to be the most efficient type, the ACIR has made several recommendations that have become embodied in the laws of several states. They are as follows.

1. States should enact legislation to provide that no special district be created prior to review and approval of the proposed district by a designated agency consisting of representatives of the counties or cities within which the proposed district will operate.

2a. If a proposed . . . district is within the . . . boundaries of an existing municipality or within a designated number of miles of an existing . . . municipality, officially notify such . . . municipality of the proposal to create the district. . .

2b. If the proposed district is not within the designated number of miles of an existing city or municipality . . . to officially notify the county governing body of the proposal to create the special district . . .

2c. If neither a county or municipality has elected to act pursuant to a or b and the proposed district is adjacent to an existing special district which is performing the same service, the approval agency shall officially notify the district governing body of the proposal to create the special district . . . . Where a city, municipality, county, or existing special district, acting singly or jointly, is willing and able to provide the service in a satisfactory manner, the agency should not approve creation of the special district.

3. States should enact legislation to insure that the activities of existing and subsequently created special districts are coordinated with the activities of units of general government. Such legislation should require (1) approval by the appropriate unit or units of general local government within which the land lies of any proposed acquisition of title to land by a special district, provided that this approval be subject to court review; and (2) that any proposal for special district capital improvements be submitted, for comment, to the appropriate unit or units of general

local government within which the proposed improvements would occur at least 60 days prior to final action on the proposal by the governing body of the district.

4. States should enact legislation requiring that a designated State agency (an office of local government or other appropriate agency), and the appropriate county governing body, be informed of the creation of all special districts within respective county borders, and, to the extent practicable, that states require that budgets and accounts of special districts be formulated and maintained according to uniform procedures determined by an appropriate State agency.

5. States should enact legislation that (1) provides a simple procedure for consolidation of special districts performing the same or similar functions; and (2) permits an appropriate unit of general government to assume responsibility for the function of the special district within the district area.

6. States should enact legislation to provide that service charges or tolls levied by special districts, which are not reviewed and approved by the governing body of a unit of general government, be reviewed and approved by an appropriate State agency.

7. States should enact legislation requiring counties and municipalities, when sending out their property tax bills or providing receipts, to include in each individual property owner's bill or receipt an itemization of special district property taxes and special assessments levied against the property. At the same time, counties and municipalities should . . . include pertinent information on the activities of all special districts operating within the . . . county or municipality.

8. States should enact legislation authorizing counties to establish subordinate taxing areas in parts of their territory to enable these governments to provide and finance a governmental service in a portion of the county.

9. Each state should undertake a comprehensive study of all governmental entities authorized by state law to ascertain the numbers, types, functions, and financing of entities within the state defined as special districts and subordinate agencies and taxing areas by the Bureau of the Census.[5]

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[5]Ibid, pp. 77-84.

The Effectiveness of the Reform Recommendations

Five states, California, Nevada, New Mexico, Oregon, and Washington have paid heed to these recommendations by creating "local boundary commissions," agencies similar to those described in items 1 - 9 above, to control the growth of special districts in metropolitan areas.[6]

Two additional states, Texas and Colorado, now have enabling legislation aimed at controlling special district growth.[7] The effects of the boundary commissions are seen in Table 4.1, where it is seen that there has been a decline in the district growth rate in each boundary commission state (except New Mexico) during the period between 1967 and 1972.

One state that has most ardently pursued the ACIR recommendations is California. Hence California will be used as a case study depicting the reasoning that was involved in the act of creating California's version of a local boundary commission--"Local Agency Formation Commissions." This discussion will aid in illuminating our future discussion of an alternative "economic rationale" for the adoption of local boundary commissions that will take place in the next section.

With the rapid urban growth that was occurring in California in the 1950's, many state legislators became of the opinion that "without

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[6]California Code 54773-54799; Nevada NRS 268-570-268.66A; New Mexico Chap. 291, Laws of 1956, Chap. 300, Laws of 1963, Chap. 248, Laws of 1967; Oregon, ORS 199.410-199.540.

[7]Texas, Ch. 54, Municipal Utility Districts, sec. 54.001; Colorado--Ch. 89, Art. 18-10.

Table 4.1. Boundary Commission States and the Growth of SMSA Special Districts

State	1962	1967	1962-1967 5 yr. % Increase	1972	1967-1972 5 yr. % Increase
California	894	1,300	45	1,279	-2
Nevade	19	24	26	26	8
New Mexico	7	4	-43	4	0
Oregon	247	350	42	257	-27
Washington	289	331	15	365	10

Source: U.S. Bureau of the Census, Census of Governments, 1967 and 1972.

some coordination in their operations, districts provide short-sighted and inefficient government." Attitudes such as this were based upon ideas such as the following one put forth by political scientist John C. Bollens, writing on districts located at the urban-rural fringe:

> Many fringe residents argue erroneously that the condition of their area is solely their own business or concern. What is particularly ironic is their frequent failure to realize that the gradual accretion of special districts eventually results in uneconomic government.[8]

After several years of study, discussion, debate, and political bargaining in the California legislature, the state regulatory bodies known as Local Agency Formation Commissions, or LAFCos, were formed by the Knox-Nisbet act of 1963.[9] LAFCos possess the following features. They are located at the county level and are comprised of city and county politicians as well as citizen representatives. They have the duty of reviewing all types of local government structure changes such as annexations, municipal incorporations and disincorporations, formation and dissolution of special districts, the annexation of territory to (existing) districts, and consolidations. LAFCo decisions are not subject to review by any higher board. The courts do not review LAFCo decisions.

More specifically, the commissions each consist of five members: two representing the county, two representing existing municipal

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[8]J. C. Bollens, Special District Government in the U.S. (Berkeley: Univ. of California Press, 1957):114.

[9]Ann. Calif. Code, 54774.

corporations, and one "representative of the general public." The general powers of LAFCos are to review and approve or disapprove, with or without amendment; wholly, partially, or conditionally, proposals for

1. incorporation of cities,
2. formation of special districts,
3. the annexation of territory to local agencies. . . provided that the commission shall not impose any conditions which would regulate land use or subdivision requirements.
4. the exclusion of territory from a city.
5. the disincorporation of a city.[10]

The section of the California law of most interest to us here is the District Reorganization Act of 1965, and amendment to the original Knox-Nisbett act, which has the following impact.

1. Makes it easier to initiate proposals for eliminating or radically modifying districts that are "anacronistic,"
2. provides a mechanism that can effectively study and recommend needed changes, and
3. gives LAFCos the power to hold hearings and make final disposition of various kinds of organizational changes.[11]

In essence, the District Reorganization Act gives state agencies even more power to regulate the structure of local government as they exert their influence over the formation, activities and dissolution of special districts. In fact, it has been stated that

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[10]Calif. Code 54790.

[11]Calif. Code 56000-58908.

> . . . one of the principle reasons for creating LAFCos was to control the proliferation of independent special districts, and to guarantee that any new districts were not only necessary, but also were coordinated with other existing governments.[12]

And, as seen above in Table 4.1, the proliferation of special districts in the State of California has indeed been halted somewhat as the actual growth rate (percentage increase) has changed from 45 percent between 1962 and 1967 to -2 percent for the period 1967 to 1972.

4.3 Alternative Interpretations of the Reform Position

This section will first point out how economic theory renders the claims of the reform tradition as to the "effectiveness" of special districts incorrect. Then, an alternative rationale for the emergence of state regulatory agencies, such as LAFCos, will be constructed, based upon the economics of industrial organization. Upon doing this, two alternative hypotheses regarding the effects of special district growth restrictions on the costs of providing municipal services and consequently, upon the level of local government expenditures will be stated.

In evaluating the justification of the reformist claim that special districts are an "uneconomical" and "inefficient" means of providing services, it is of utmost importance to note that these conclusions are based entirely on their (the reformists') "approach to

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[12]R. T. LeGrates, California Local Agency Formation Commission.

government." That is, the reformist position is that "economical service provision" is assumed only attainable by a centralized local government. If so, then by definition special districts represent an inefficient mode of municipal service provision.

Alternatively, if by the phrase "efficiency in service provision" it is meant efficiency in production, distribution and consumption as defined in Chapter 2, then our expectations will change. With respect to production efficiency in particular, it was seen in Chapter 2 that there have been instances where district provision of services (fire protection, in that example) is just as efficient as what could be obtained with provision by multi-purpose units of government.

The reformists' claim that special districts "are unresponsive" once again, relies upon the assumption that only a centralized metropolitan governmental setting can provide responsive local government. Evidence of such unresponsiveness, according to the ACIR, is the fact that voter turnout in district elections is low. Thus, if "responsive government" is defined as one characterized by high voter turnout, then by definition special districts are unresponsive.

On the other hand, since the rational individual will base his decision to vote upon the expected benefits thereof as well as the accompanying costs, in terms of time, effort and money, and since many individuals are eligible to vote in the elections of numerous levels of government (including special districts), it is logical to assume that the costs of participating in a district election quite often outweigh the benefits. Such benefits are necessarily comparatively

small in a governmental unit the size of a special district.[13] As John C. Bollens has stated:

> . . . although conscientious citizens might conceivably have exercized effective control over a few governmental units it is unreasonable to expect them to watch and regulate a multi-ring circus.[14]

As mentioned in Chapter 2, if one things of responsive government in terms of the ability of consumer-taxpayers to articulate their demands for public goods and services, then districts do have the potential to be quite responsive.

The further claim by the ACIR that "districts distort the political process by competing for scarce public resources" is, once again, based entirely on their approach to government. Namely, they define an undistorted political process as one where there is no such competition for "scarce public resouces." Alternatively, if competition for such resources exerts competitive pressures on local public managers that induces them to be more efficient, then districts distort the political process only inasmuch as district growth creates unwanted competition for local incumbents.

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[13]For a discussion of the economics of the decision to vote, see Gordon Tullock, Toward a Mathematics of Politics (Ann Arbor: Univ. of Michigan Press, 1972):100-14.

[14]John C. Bollens, Special District Government in the U.S. (Berkeley: University of California Press, 1957).

4.4 An Economic Interpretation of Special District Growth Controls: Entry Barriers in the Local Government Market

In light of the above contradictions brought about by evaluating, theoretically, special district performance on economic grounds, an alternative explanation and set of predictions as to the effects of restricting the growth of special districts will now be offered.

The general scenario will be to apply economic theory to the discussion of the local political institutions that are of interest to us.[15] In particular, the number of local governmental units in a metropolitan area will be compared to the number of firms in an industry.

If the representative firm in a private industry is to earn above-normal economic profits in the long run, then it is essential to be able to limit entry into the industry. In the absence of such limitations, above-normal economic profits will attract new entrants into the industry, the occurrence of which will bid away the quasi-rents available to existing producers. Therefore, a geneal behavioral assumption made by a number of economists and aptly stated by Stigler is as follows:

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[15]For a broader application of economic theory to political institutions, see Albert Breton, The Economic Theory of Representative Government (Chicago: Aldine, 1974).

> . . . every industry or occupation that has enough political power to utilize the state will seek to control entry. In addition, the regulatory policy will often be so fashioned as to retard the rate of growth of new firms.[16]

The managers of private firms do have an incentive to restrict entry into their industry as they are often the residual claimants to monopoly profits that may be earned.[17] Now, the question to pose at this point is: do local politicians have a similar motivation to restrict entry into the local government industry?

In answering this question it must first be noted that local public managers, unlike the managers of private firms, are not residual claimants to the "profits" that might accrue to the "local government firm" from the restriction of entry into the local government industry. That is, they can lay no direct personal claim to any revenues gained as a result of the establishment of a monopoly. Would local bureaucrat-politicians, such as those comprising the membership of the boundary commissions, then have an economic incentive to pursue policies that would limit special district growth, thereby creating barriers to entry into the local government industry?

In answering this question it must be recognized that there are two different types of public managers: the locally elected politician and the manager-bureaucrat who may be an elected or appointed official.

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[16]George J. Stigler, "The Theory of Economic Regulation," The Bell Journal of Economics 2 (Spring 1971):3-21.

[17]See Armen Alchian, "Some Economics of Property Rights," Il Politico 30 (December 1965):816-29.

The membership of boundary commissions consists of both types of agents. These individuals may or may not have significantly different behavioral motivations. Therefore, they will be dealt with separately. First, one can assert that the rational local politicians, in maximizing his votes in the next election, attempts to maximize the fiscal surplus of a majority of his jurisdiction's residents.[18] In doing this it is then rational for him to pursue policies that would increase net city revenues that increase the fiscal surplus and consequently, the wealth of city voters. This goal can be attained more readily if there are barriers to entry into the local government market, for a number of reasons. First, there is then less competition for intergovernmental aid, a source of municipal revenue that has been increased substantially in recent years. Also, diminishing the number of sources of municipal service provisions induces individuals and firms to establish residence in the existing municipality, thereby contributing to the tax base there.[19] For this reason one can view the reduction in the growth rate of special districts as a means by which local political decision makers increase their ability to compete for tax revenues as well as for intergovernmental aid.[20]

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[18]This behavioral assumption is made by Buchanan in his "Principles of Urban Fiscal Strategy," Public Choice 8 (Spring 1970):1-16.

[19]For a discussion of how cities compete for tax revenues in this way, see Donald J. Curran, "Inframetropolitan Competition," Land Economics (February 1964):94-9.

[20]Further evidence of this motivation on the part of local governmental managers is found in the fiscal zoning literature. See, for example, Bruce Hamilton, "Zoning and the Exercise of Monopoly Power," Journal of Urban Economics 5 (January 1978):116-30.

Next, consider the"manager-bureaucrat," i.e., the manager of the existing local service-producing agency. Since the local agency manager cannot claim any direct pecuniary rewards from the "profits" derived from local governmental activities, what economic rationale does he have to restrict entry into the local government industry?

The economics of bureaucracy promotes the idea that public managers are not"profit" maximizers as is the manager of the private firm of neoclassical microeconomic theory, but instead seek increased power, prestige, salary and perquisites. Furthermore, it has been shown that bureaucrats, in fact, pursue these benefits by maximizing the net revenues of the operation that they manage. It has also been shown that in some cases the salaries of such bureaucrats are positive functions of the budgets that they manage.[21]

Thus, the self-interested local bureaucrat does have the incentive to promote the construction of entry barriers into the local government industry if he can, in fact, increase his budget by doing so. Explicit evidence of this particular bureaucratic rationale was mentioned in Chapter 2 where it was seen that one of the greatest inhibiting forces against the adoption of the Lakewood Plan in the 1950's was the opposition provided by the managers of local service-producing agencies who feared that the contracting system would diminish their

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[21]S. R. Klatzy, "Relationship of Organization Size to Complexity and Coordination," Administrative Science Quarterly 15 (December 1971): 428-38.

monopoly power in the provision of local services and subsequently decrease the size of their agencies.[22]

4.5 Summary

Two very divergent views of the role of special districts in the efficient provision of local public services have now been seen. On the one hand, districts are viewed as a potential means of attaining production and distribution efficiency--both as a contracting agent, selling its services, and as a local fiscal club providing (assumably) cheaper services to its members. Alternatively, it has been seen how the reformists' "approach to government" has been used to persuade the lawmakers in at least seven states to restrict the growth of special districts which are viewed by reformists as inefficient and unresponsive service providers.

Yet another explanation has been given in this chapter that serves as an alternative interpretation to the reform model. Namely, the "economic interpretation" of special district growth restrictions.

In the next chapter the reform hypothesis will be tested against the alternative "efficiency hypothesis" pertaining to the role of special districts. This will be done by examining the effects that local boundary commissions have had in the states of California, Oregon, and Washington, the three states that have been most effective

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[22] In terms of capital and labor expenditures.

in curtailing special district growth, on the cost of providing local public services.

The "bureaucracy hypothesis" outlined in the previous section will also be tested by determining whether or not restricting the proliferation of special districts has given local public managers greater monopoly power in the local government industry, thereby allowing them to increase their budgets, expenditures and relative proportion of intergovernmental aid.

Chapter 5

HYPOTHESIS TESTING

5.1 Introduction

The purpose of this chapter is to present evidence that will confirm or contradict the following hypothesis, which was derived in Chapter 4:

> If the growth of special districts in metropolitan areas does in fact lead to uneconomical and unresponsive local government, then the imposition of effective controls on the proliferation of special districts should yield a more efficient, i.e., less costly, provision of local public services.

In testing this hypothesis the data and method to be used will first be described. Then, evidence will be brought forth to confirm or contradict the hypothesis. The final section of this chapter will then summarize the results.

5.2 Data and Method

The "experimental laboratory" that will be used will be the local governmental environment of the states of California, Oregon, and Washington during the years 1962 to 1972. Each of these states, as mentioned in Chapter 4, imposed growth restrictions on special districts by the creation of "boundary commissions." The goal then is to ascertain the effects of these institutional changes on the costs of providing municipal services in California, Oregon, and Washington.

Two measures of the efficiency with which local public services are provided will be employed: per capita local governmental tax shares, and per capita current operating expenditures for county governments in the above-mentioned states.[1] County government data were used, as adequate data is simply unavailable for municipalities. That is, using municipal data would severely restrict the sample size.[2] The data source is the U.S. Bureau of the Census, City and County Data Book: Statistical Abstract Supplement covering the years 1962 to 1972.

The experimental design will be as follows. First, for the "California case," the costs of municipal service provision before and after the restrictions imposed upon special district growth will be compared. However, merely comparing the costliness of service provision in these two time periods can only inform us of the direction or pattern of municipal service costs. Discerning the effects on such costs of an institutional change such as special district growth restrictions will then be approached by choosing a control group of states characterized by the existence of free entry in the local government market by special districts and then testing the hypothesis that the mean changes in per capita tax shares and current

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[1]Among other economists to use these measures of local government performance are William Niskanen, Robert Bish, Craig Stubblebin et al. in Public Benefits from Public Choice (Los Angeles: Task Force on Local Government Reform, 1975).

[2]Counties were chosen in alphabetical order to ensure randomness.

expenditures were equal, for the period 1962-67, to that of control group states. The alternate hypothesis is that the mean alteration in per capita taxes and current expenditures for California were greater than for the control group states. Accepting the null hypothesis and thereby rejecting the alternative would support the premise that decreasing the number of special districts in a metropolitan area is conducive to less costly service provision. Rejecting the null hypothesis, and accepting the alternative would support the assertion that districts provide an institution that promotes less costly service provision (for the reasons mentioned in earlier chapters).

This scenario will then be applied to the case of Oregon and Washington, which due to the establishment of boundary commissions experienced a sharp decline in the number of special districts between 1967 and 1972. Further evidence relevant to the testing of the central hypothesis will also be presented.

5.3 Tax Share and Expenditure Hypotheses

Since the District Reorganization Act in California was initially implemented in early 1965, with other elements of the Knox-Nisbett Act implemented two years earlier, we are interested in discerning whether or not such an institutional change did, in fact, increase the efficiency with which municipal services are provided, as proponents of that legislation have claimed. Thus service costs in California counties will be considered first in the year 1962 (pre-DRA) and then in 1967, after the District Reorganization Act had taken effect.

(Consider Table 5.1.) As seen in the table, nearly every county experienced a sharp increase in per capital local taxes and expenditures. The mean percentage change in per capita taxes was calculated as 34.53%, while the mean percentage change in per capita expenditures was 37.21%. The average absolute change in per capita local taxes was found to be $111.54, while the average absolute change in per capita current expenditure was calculated as $124.93.

Granted, there are a number of variables that can influence the level of local governmental expenditures and tax shares, but the information gleaned from Table 5.1 is indeed important as it shows that the costs of providing municipal services in California counties increased substantially after the restrictions placed on the creation of special districts. This is, of course, contrary to the reformist predictions that restricting special district growth would decrease the levels of local government expenditures and tax shares.[3]

Since the costs of providing local public services and subsequently, municipal expenditures, generally rose throughout the country during the sixties, the changes in local per capita taxes and expenditures in states characterized by different institutional settings will now be compared. That is, the changes in per capita taxes and current expenditures in California will be compared to those of a control group

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[3]An explicit statement of this prediction in the Oregon case can be found in (among other places) R. Ease, W. Myylenbeck, and M. Rosenberger, Approaches to Local Government Reorganization: Tri Cities Washington (Portland: Columbian Research Institute, 1970).

Table 5.1. Per Capita Taxes and Expenditures, California Counties: 1962-1967 (In Dollars)

County	Per Capita Taxes			Per Capita Expenditures		
	1962	1967	% Change 1962-1967	1962	1967	% Change 1962-1967
Alameda	173.31	218.42	26.03	272	381	40.07
Alpine	191.31	368.88	92.82	658	1104	67.78
Amador	186.07	246.85	29.03	351	449	27.92
Butte	162.28	201.87	23.90	281	342	21.71
Calaveras	151.96	183.64	20.85	296	352	18.19
Colusa	218.76	383.90	76.21	420	597	42.14
Contra Costa	203.85	240.31	17.89	319	431	35.11
Del Norte	135.55	207.65	53.19	283	484	71.02
El Dorado	178.98	265.48	48.33	298	449	50.67
Fresno	163.96	208.15	26.95	293	410	39.93
Glenn	185.27	253.70	36.94	368	471	27.99
Humbolt	144.89	235.45	62.50	240	425	77.08
Imperial	159.13	234.21	47.18	350	489	39.71
Inyo	232.67	256.01	10.03	404	538	33.17
Kern	199.45	241.69	21.18	313	428	36.74
Kings	168.83	193.27	13.80	317	391	23.34
Lake	181.61	183.78	1.19	331	306	-7.55
Lassen	120.52	152.44	26.49	309	357	15.53
Los Angeles	187.50	232.94	24.23	265	356	34.34
Madera	172.45	229.45	33.05	333	483	45.05
Marin	170.05	236.66	39.17	231	361	56.28
Mariposa	132.83	219.37	65.15	341	409	19.94
Mendocino	128.21	178.52	39.24	249	369	48.19
Merced	163.44	228.95	40.08	303	481	58.75
Modoc	163.21	215.61	32.11	425	511	20.24
Mono	443.35	415.28	-6.33	615	777	26.34
Monterrey	127.93	175.46	37.13	236	327	38.56
Napa	122.76	163.51	33.19	204	321	58.82
Nevada	140.02	192.13	37.22	311	339	9.00
Orange	186.57	178.44	-4.36	251	302	20.32

Table 5.1 (Continued)

County	Per Capita Taxes			Per Capita Expenditures		
	1962	1967	% Change 1962-1967	1962	1967	% Change 1962-1967
Placer	158.04	258.82	63.77	274	453	65.33
Plumas	237.31	322.68	35.97	385	522	41.90
Riverside	166.00	192.54	15.99	273	384	40.66
Sacramento	150.62	190.77	26.66	260	371	42.69
San Benito	148.99	190.80	28.06	264	331	25.38
San Bernardino	151.89	193.67	27.51	257	375	45.91
San Diego	141.04	152.56	8.17	231	320	38.53
San Francisco	199.58	338.15	69.43	262	423	61.45
San Joaquin	168.95	207.38	22.75	312	454	45.51
San Luis Obispo	155.88	212.15	36.10	272	387	42.28
San Mateo	179.97	245.25	36.27	260	389	49.62
Santa Barbara	176.02	180.10	2.32	266	312	17.29
Santa Cruz	172.99	203.12	17.42	302	359	18.87
Shasta	159.68	265.10	66.02	293	400	36.52
Sierra	199.07	268.63	34.94	477	680	42.56
Siskiyou	136.15	207.72	52.57	301	398	32.23
Solano	106.93	141.45	32.28	229	309	34.93
Sonoma	153.05	187.92	22.78	261	349	33.72
Stanislaus	140.02	191.17	36.53	299	412	37.79
Sutter	127.59	218.95	71.60	266	341	28.20
Tehama	166.56	201.91	21.22	324	382	17.90
Trinity	98.93	180.16	82.11	291	533	83.16
Tulare	162.32	196.94	21.33	310	436	40.65
Tuolumne	167.86	180.26	7.39	306	366	19.61
Ventura	202.53	198.89	-1.80	277	338	22.02
Yolo	151.44	192.38	27.03	274	340	24.09
Yuba	67.81	175.75	159.18	269	366	36.06

Source: Calculated from data contained in City and County Data Book, 1962 and 1967.

of states where free entry into the local government market by special districts is permitted, and in which there was a substantial increase in the number of districts created during the 1962-1967 period. More specifically, the choice of control group states was based on the following criteria:

1. State law must permit free entry by special districts into the local government market.

2. The states chosen experienced the most rapid growth of SMSA special district creation in the relevant period, i.e., 1962-1967 for the California case, and 1967-1972 for the Oregon and Washington tests, subject to the conditions:

   2a. both SMSA districts and the total number of districts in the state increased significantly, and

   2b. the states chosen have a total number of districts somewhat comparable to boundary commission states. For example, a state that experienced a 300% increase in the district growth rate would not be chosen if such a growth rate represented a change from a total of only, say, 8 districts to 32. The numbers of special districts in the control group states are listed in the forthcoming discussion.

The states chosen, according to these criteria, for the "California hypotheses" were North Carolina, North Dakota, and West Virginia. Control group states for the Oregon and Washington hypotheses were, of course, chosen according to this same criterion.

The fact that there was substantial growth in the use of special district government by these states would, if anything, bias downwards our conception of the difference between service costs in California and those in free entry states, as district creation does often reflect an increased demand for publicly provided goods and services, which can induce increased service costs. Therefore, choosing the

control group states according to the above criteria would appear to be superior to merely using all free entry states as the control group. One would expect that using the latter procedure would lead to greater cost differences between boundary commission and control group states than the former method.

The null hypothesis used in the test was that counties in California and the control states would experience equal mean changes in per capita taxes and current operating expenditures.[4] The data used were the calculated changes in per capita county taxes and current expenditures, including special districts, in these areas. As hypotheses concerning differences between means of two sample populations were being tested, the t-statistic was used in a one-tailed test. The t-statistic used is as follows.[5] (See Table 5.2.)

$$(5.1) \qquad t = \frac{\bar{X}_1 - \bar{X}_2}{S_p\sqrt{(1/N_1) + (1/N_2)}}$$

where $\bar{X}_1$ = sample mean of California observations

$\bar{X}_2$ = sample mean of control state

S_p = pooled mean-square estimate of the population variance, σ^2, which is equal to

$$\sqrt{\frac{(N_1 - 1)s_1^2 + (N_2 - 1)s_2^2}{N_1 + N_2 - 2}}$$

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[4]Note that we are dealing with absolute rather than percentage changes.

[5]See William C. Merril and Karl A. Fox, Economic Statistics (New York: John Wiley & Sons, 1970):271-320.

Table 5.2. Number of Special Districts in Control Group States: 1962-1967

State	Number of Special Districts		% Change 1962-1967
	1962	1967	
North Carolina	125	215	72
North Dakota	246	431	75
West Virginia	55	120	118

Source: U.S. Bureau of the Census, Census of Governments, 1972, Vol. 1.

where s_1, s_2 = sample variances

N_1 = sample size of California observations

N_2 = sample size for control state.

Two sets of hypotheses were made; one concerning differences in mean changes in per capita taxes between California and the control group states and the other concerning differences in mean changes in per capita expenditures. The listing of the actual hypotheses, decision rules, and test results for the "tax share hypotheses" are presented below in Table 5.3. The null hypothesis (one-tailed test), in each case, takes the following form:

$$(5.2) \qquad H_o: \quad \mu_1 = \mu_2$$

where μ_1 = mean change in per capita local government tax shares in California

μ_2 = mean change in per capita local government tax shares in control group states.

The alternative hypothesis is

$$(5.3) \qquad H_o: \quad \mu_1 > \mu_2$$

The actual hypothesis is stated in words that the average change in California counties (in service costs) is equal to that in counties of the control group states. If accepted, this would infer that the institutional structure of California local government yields no significant difference in the change in service costs over the relevant time period than in the control group states. If the null hypothesis

Table 5.3. California Tax Share Hypotheses: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-statistic	Decision	$\bar{X}^*$
North Carolina	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.672$	7.75	Reject H_o	45.00
North Dakota	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.655$	12.93	Reject H_o	61.73
West Virginia	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.672$	7.35	Reject H_o	15.17

*The mean change in per capita taxes for California counties was found to be 111.54.

$\alpha = .05$ for all tests.

is rejected, and the alternative accepted, then the inference is that the rise in service costs (in terms of increases in the per capita tax burden) was significantly greater in California counties than in the other states. The .05 level of significance, α, was arbitrarily chosen for all tests.

As seen in Table 5.3 the null hypothesis was rejected in each case. Therefore, accepting the alternative hypotheses with a small probability of committing a type II error, the data infer that the costs of providing local public goods and services in California rose at a significantly greater rate than in those states (in our sample) where special district creation was not hindered and there was free entry into the local government market.

Expenditure Hypotheses

Similar tests were conducted concerning differences in average changes in per capita current expenditures. The same t-statistic as in (5.1) was used and the .05 level of significance was retained. The results of the testing of the expenditure hypotheses are reported in Table 5.4. In Table 5.4 θ_1 and θ_2 represent average changes in per capita local government current expenditures for California and control group counties, respectively. Once again, rejecting the null hypothesis and accepting the alternative would lend support to the claim that service costs increased at an equivalent rate in California and the free entry control group states. As seen in Table 5.4, the null hypothesis was again rejected in each case.

Table 5.4. California Expenditure Hypotheses: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-statistic	Decision	$\bar{X}^*$
North Carolina	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.672$	7.01	Reject H_o	45.00
North Dakota	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.655$	5.09	Reject H_o	63.48
West Virginia	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.672$	6.68	Reject H_o	42.28

*The average change in per capita expenditures in California counties was $124.93.

$\alpha = .05$ for all tests.

In essence, the testing of both the tax share and expenditure hypotheses lend support to the claim that the institutional structure of California local government, one that has restricted the growth of special districts, yields a greater increase in the cost of providing local public goods and services than in the control group states which are characterized by free entry by special districts in the local government industry.

Per Capita Tax and Expenditure Growth in the State of Oregon

As mentioned earlier, the state of Oregon also initiated state boundary commissions with the expressed purpose of restricting the growth of special districts. Oregon boundary commissions have, in fact, been quite successful in doing just that, as the number of SMSA special districts in Oregon declined from a total of 322 in 1967 to 257 in 1972, over a 20 percent drop.[6] Therefore, it is of interest to seek the effects of this institutional change in the State of Oregon on the costs of providing municipal services. Tests similar to those just described were undertaken for the state of Oregon. One minor alteration is that Oklahoma replaced North Dakota as one of our control group states. The reasons for this are: 1) the total expenditures in Oklahoma and Oregon are more closely matched (in magnitude) than are those for Oregon and North Dakota, and 2) the control group states

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[6]U.S. Department of Commerce, Bureau of the Census, Census of Governments, Vol. 1, 1977.

were once again chosen by considering those free entry states that have had the most substantial increase in the number of special districts (for the period 1967-72 in this instance). This ensures that there is, in fact, free entry into the local government market and that such entry is not restricted by any means not related to "official" state activity, i.e., for political reasons, etc.

Before describing the results of these particular tests, however, consider the pattern of per capita taxes and current expenditures in Oregon (counties) during the 1967-72 period presented in Table 5.5. As seen there, every county witnessed an increase in both per capita taxes and current expenditures--some in excess of 100 percent during the five year period. The average percentage change in per capita tax shares for that period was 68.09% while the mean percentage change in per capita local governmental current expenditures was calculated to be 60.25%. In terms of absolute magnitudes, the average change in per capita tax shares was found to be $98.79 while the average change in per capita current expenditures was $165.56.

In essence, the data in Table 5.5 do tell us that the abolition of over 20% of the special districts in the state of Oregon did not diminish the levels of taxes and expenditures facing consumer-taxpayers there, as some reformists have claimed would be the case. There was indeed a substantial increase in the cost of providing local public goods and services during the 1967-72 period.

Next, consider the results of testing of the per capita tax and expenditure hypotheses for the State of Oregon. In Table 5.6, μ_1 and

Table 5.5. Per Capita Taxes and Expenditures, Oregon Counties: 1967-1972 (In Dollars)

County	Per Capita Taxes			Per Capita Expenditures		
	1967	1972	% Change 1967-1972	1967	1972	% Change 1967-1972
Baker	178.56	227.89	27.58	270	383	41.85
Benton	107.52	217.57	102.35	194	333	71.65
Clackamus	122.35	239.24	95.54	223	399	78.92
Clatsok	155.94	256.38	64.41	337	467	38.58
Columbia	123.96	245.03	121.07	240	419	74.58
Coos	144.38	254.80	110.42	266	449	68.80
Crook	150.27	170.26	13.30	257	365	42.02
Curry	131.92	230.66	74.85	342	517	51.17
Deschutes	142.34	240.47	68.94	289	487	68.51
Douglass	144.97	203.50	40.37	273	443	62.27
Gilliam	261.54	400.00	52.94	443	491	10.84
Grant	132.31	231.88	75.26	384	512	33.33
Harney	191.64	318.78	66.34	366	589	60.93
Hood River	137.26	273.00	98.89	266	445	67.29
Jackson	133.42	206.28	54.61	246	391	58.94
Jefferson	222.79	292.47	31.28	339	599	76.70
Josephine	97.16	198.62	104.43	269	453	68.40
Klamath	141.37	189.92	34.34	253	341	34.78
Lake	153.37	252.25	64.45	312	603	93.27
Lane	142.74	259.98	82.14	244	445	82.38
Lincoln	162.89	279.56	71.63	166	485	82.71
Linn	137.12	257.25	87.61	250	407	62.80
Malheur	159.58	250.33	56.87	282	494	75.18
Marion	125.88	232.64	84.81	211	387	83.41
Multnomah	183.08	302.88	65.44	271	494	82.29
Polk	105.51	147.10	39.42	210	265	26.19
Sherman	283.93	419.19	47.64	363	566	55.92
Tillamook	145.97	234.35	60.55	315	473	50.16
Umatilla	176.96	253.77	43.41	300	426	42.00
Union	139.34	227.07	62.96	231	364	57.58
Wallowa	171.86	304.15	76.98	288	518	79.86
Wasco	180.10	238.41	32.38	278	414	48.92
Washington	109.64	270.39	146.60	205	344	67.80
Wheeler	177.13	274.88	55.19	296	439	48.31

Source: Calculated from data contained in City and County Data Book: Statistical Abstract Supplement, 1967 and 1972.

Table 5.6. Tax Share Hypotheses, Oregon: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-2 statistic	Decision	$\overline{X}^*$
North Carolina	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.649$	9.09	Reject H_o	45.00
Oklahoma	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.649$	8.90	Reject H_o	34.36
West Virginia	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.649$	10.22	Reject H_o	15.17

*The mean change in per capita taxes in Oregon was found to be $93.99.

$\alpha = .05$ for all tests.

μ_2 represent the average change in per capita tax shares in Oregon and each control group state, respectively, for the years 1967-72.

The hypothesis that the average increase in per capita taxes in Oregon counties was equal to that for the control group states was rejected in each case and the alternative accepted at the .05 level of significance. Thus, the data support the assertion that the costs of providing local public goods and services to Oregon residents rose at a greater rate than in the control group states for the 1967-72 period.

The expenditure hypothesis was also tested in the Oregon case, the results of which are listed below in Table 5.7. In this instance, θ_1 and θ_2, once again represent the average change in per capita current expenditures in Oregon and control group states, respectively. Once again, the null hypothesis is rejected in each instance at the .05 level of significance.

Per Capita Tax Share and Expenditure Growth in Washington State

Now consider tax and expenditure growth in the State of Washington. As seen in Table 5.8, nearly every county experienced an increase in per capita taxes and current expenditures for the 1967-72 period. The average percentage changes in per capita taxes was found to be 81.58%, while per capita expenditures rose at an average percentage rate of 55.11%. The average absolute changes in per capita taxes and expenditures were found to be $71.71 and $151.87, respectively.

Tests of the tax share and expenditure hypotheses were also conducted for the State of Washington. As seen in Table 5.9, the tax

Table 5.7. Expenditure Hypotheses, Oregon: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-statistic	Decision	$\overline{X}^*$
North Carolina	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.649$	3.67	Reject H_o	45.00
Oklahoma	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.649$	5.26	Reject H_o	124.65
West Virginia	$\Theta_1 = \Theta_2$	$\Theta_1 > \Theta_2$	Reject if $t > 1.649$	6.15	Reject H_o	42.28

*The average change in per capita expenditures for Oregon counties was found to be $165.56.

$\alpha = .05$ for all tests.

Table 5.8. Per Capita Taxes and Expenditures, Washington Counties: 1967-72

County	Per Capita Taxes			Per Capita Expenditures		
	1967	1972	% Change 1967-1972	1967	1972	% Change 1967-1972
Adams	145.14	224.00	54.33	471	562	38.43
Asotin	50.22	74.83	49.00	211	281	33.18
Benton	68.19	130.69	91.65	257	400	55.64
Chelan	107.07	179.29	67.45	282	379	34.40
Clark	77.46	155.68	100.98	247	356	44.13
Columbia	119.62	173.91	45.39	303	481	58.76
Cowlitz	100.16	201.75	101.43	297	429	44.44
Douglass	72.33	116.67	61.30	246	374	52.03
Ferry	52.86	125.00	136.47	315	492	56.19
Franklin	98.31	198.50	101.91	336	497	47.92
Garfield	157.64	181.82	15.34	384	514	33.85
Grant	112.42	158.99	41.43	361	547	51.52
Gray's Harbour	87.72	178.93	103.75	257	481	87.16
Island	51.50	113.40	120.19	178	330	85.39
Jefferson	70.16	198.11	182.37	319	422	32.29
King	127.85	250.62	96.03	271	458	69.00
Kitsap	58.87	130.43	121.56	207	323	56.04
Kittitas	75.73	125.93	66.29	247	346	40.08
Klickitat	96.02	178.29	85.68	330	555	68.18
Lewis	88.64	165.24	86.42	250	360	46.80
Lincoln	164.20	278.35	69.52	355	579	63.10
Mason	66.28	142.18	114.51	245	430	75.51
Okanogan	78.93	111.94	41.82	286	431	50.70
Pacific	112.17	193.55	72.55	301	408	35.55
Pend Oreille	103.97	119.40	14.85	343	553	61.22
Pierce	84.09	173.24	106.02	247	358	44.94
San Juan	117.74	255.81	117.26	283	461	62.90
Skagit	98.89	194.71	96.90	291	481	65.29
Skamania	91.57	100.00	9.21	409	748	82.89
Snohomish	68.54	204.01	197.65	229	375	63.76
Spokane	90.60	137.33	51.58	219	324	47.95
Stevens	72.30	92.39	27.79	242	399	64.88
Thurston	69.98	168.70	141.07	232	391	68.53
Wahkiakum	107.24	105.25	-1.85	249	347	39.96
Walla Walla	106.78	166.27	55.71	219	319	45.66
Whatcom	88.08	185.94	111.10	217	363	67.28
Whitman	76.02	154.79	103.62	198	317	60.10
Yakima	68.17	115.59	69.56	203	349	71.92

Source: City and County Data Book: Statistical Abstract Supplement, 1967 and 1972.

Table 5.9. Washington State Tax Share Hypotheses: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-statistic	Decision	$\bar{X}^*$
North Carolina	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.660$	7.01	Reject H_o	32.62
Oklahoma	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.660$	5.03	Reject H_o	34.97
West Virginia	$\mu_1 = \mu_2$	$\mu_1 > \mu_2$	Reject if $t > 1.660$	7.39	Reject H_o	26.34

*The average change in per capita taxes in the State of Washington was found to be $71.71.

$\alpha = .05$ for all tests.

share hypothesis was rejected in each case, and the alternative accepted, lending additional support to the conjecture that decreasing the proliferation rate of special districts in metropolitan areas may increase the cost of providing local public goods and services.

In terms of the expenditure hypotheses, the null hypothesis was once again rejected in each instance, as seen in Table 5.10. Note, however, that the t-statistics were substantially lower than in the previous tests of the expenditure hypotheses. Since the State of Washington has not experienced as great a decline in the number of special districts as have Oregon and California, this result is expected in light of the above evidence that decreasing the growth rate of special districts increases the costs of providing municipal services.

Tax and Expenditure Hypotheses: Summary

The above cited evidence shows that in each of these three states that have effectively restricted the creation and growth of special districts the costs of providing local public services have not decreased, but increased rather substantially. Furthermore, the costs of providing local public goods and services in California, Oregon and Washington rose at a greater rate than in those control group states that experienced increases in the growth rate of special districts. This evidence lends support to the "economic interpretation" of special district growth restrictions presented in Chapter 4.

Table 5.10. Washington State Expenditure Hypotheses: One-Tailed Tests

Control Group State	Null Hypothesis	Alternative	Decision Rule	t-statistic	Decision	$\overline{X}^*$
North Carolina	$\theta_1 = \theta_2$	$\theta_1 > \theta_2$	Reject if $t > 1.660$	1.86	Reject H_o	131.70
Oklahoma	$\theta_1 = \theta_2$	$\theta_1 > \theta_2$	Reject if $t > 1.660$	2.55	Reject H_o	124.65
West Virginia	$\theta_1 = \theta_2$	$\theta_1 > \theta_2$	Reject if $t > 1.660$	5.00	Reject H_o	105.30

*The average change in per capita expenditures in the State of Washington was found to be $151.87.

$\alpha = .05$ for all tests.

5.4 Changes in Service Costs by Function

Next, consider the costs of providing local public services, by function, in California, Washington, and Oregon for the period 1967-72, a period when each of these states observed a sharp decline in the growth rate of special districts, as seen above in Table 4.1. What will be done here is to examine the changes in the cost of providing a number of services during this period that are most frequently provided by districts. Proponents of special district growth restrictions have contended that such services could be provided more cheaply if the proliferation of special districts were attenuated.

As was seen in Table 2.6, among the most numerous types of districts are as follows, with the number of districts as of 1972 in parentheses: Fire Protection (3872), Soil Conservation (2564), Water Supply (2323), Housing and Urban Renewal (2270), Drainage (2192), and Sewerage (1406). Data are available for the fire protection, water supply, and sewage disposal functions for the states that are of interest to us. The source of this data is the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Local Government Finances in Selected Metropolitan Areas and Large Counties: 1967-68, and 1972-73.

Changes in service costs will be broken down into two categories: current operating expenditures and then the combination of current and capital expenditures, the latter category being more reflective of cost increases due to "expanded plant size."

The reformist predictions are, of course, that decreasing the number of districts would decrease the cost of providing these services. However, the data show otherwise. First, consider the cost of providing fire protection, water supply, and sewerage disposal in the States of Washington and Oregon. Data availability limits us to the six counties listed below in Tables 5.11 and 5.12. As seen in Table 5.11, the (current and capital) cost of providing sewerage, water supply, and fire protection services in those selected counties rose by the very substantial amounts of 80.27%, 192.52% and 107.42%, respectively. Table 5.12 further informs us that current operating expenditures for the sewerage and water supply functions rose by 55.46% and 81.49% respectively (current operating cost data are not available for the fire protection function). These data do infer that diminishing the frequency of special district service provision in these states has not caused a decline in the cost of providing these particular services. On the contrary, a sharp increase in both current and capital costs was observed during the 1967-72 period which was characterized by a local governmental institutional environment in these states that sought to reduce the proliferation of special districts.

Tables 5.13 and 5.14 show cost increases for these services in the state of California during the period 1967-72, a time when the growth rate of SMSA districts was -2%, a substantial drop from the +45% rate witnessed during the previous 5-year period. As seen in Table 5.13, the per capita (current and capital) cost of providing sewerage, water

Table 5.11. Changes in Per Capita (current and capital) Expenditures, by Function, Washington and Oregon: 1967-1972

County	Sewerage		Water Supply		Fire Protection	
	% Change	Absolute Change	% Change	Absolute Change	% Change	Absolute Change
Multnomah, Ore.	182.51	$21.81	69.17	$11.51	44.00	$6.24
Clackamus, Ore.	244.80	12.24	26.51	7.22	-46.66	-6.92
Washington, Ore.	-26.68	-11.40	270.88	36.00	362.38	10.99
King, Wash.	13.65	4.18	46.83	8.06	68.40	7.75
Clark, Wash.	-69.02	-8.29	721.42	67.02	129.92	8.81
Snohomish, Wash.	136.33	4.24	21.31	4.75	86.50	5.32
$\overline{X}$ =	80.27%	$3.80	192.52%	$22.43	107.42%	$5.37

Table 5.12. Changes in Per Capita Current Expenditures, by Function, Washington and Oregon Counties: 1967-1972

County	Sewerage		Water Supply	
	% Change	Absolute Change	% Change	Absolute Change
Multnomah, Ore.	235.00	$6.27	115.00	$11.22
Clackamus, Ore.	-6.33	-.28	92.07	8.24
Washington, Ore.	31.36	4.56	162.00	9.74
King, Wash.	-33.49	-2.93	47.55	4.07
Clark, Wash.	-18.63	-.57	82.20	5.08
Snohomish, Wash.	124.87	2.46	-9.90	-1.21
$\overline{X}$ =	55.46%	$9.51	81.49%	$6.19

Table 5.13. Changes in Per Capita (current and capital) Expenditure, by Function, California: 1967-1972

County	Sewerage		Water Supply		Fire Protection	
	% Change	Absolute Change	% Change	Absolute Change	% Change	Absolute Change
San Bernardino	368.15	$11.56	16.86	$7.22	100.00	$8.62
Riverside	-4.48	-.50	41.57	20.04	77.14	4.86
San Diego	60.17	6.33	91.57	31.63	44.78	3.69
San Francisco (city)	131.03	10.64	-19.58	-10.74	52.28	14.24
Alameda	100.00	7.59	-42.63	-15.67	64.78	10.43
Contra Costa	63.39	6.44	517.00	17.94	70.99	8.42
Los Angeles	84.89	4.10	-6.29	-2.19	68.35	9.09
Marin	4.68	.37	19.36	6.84	116.83	21.80
San Mateo	89.90	12.55	41.13	5.80	-61.11	-26.83
$\overline{X}$ =	100.64%	$6.56	73.22%	$6.76	59.34%	$6.04

Table 5.14. Changes in Per Capita Current Expenditure, by Function, California: 1967-1972

County	Sewerage		Water Supply	
	% Change	Absolute Change	% Change	Absolute Change
San Bernardino	137.43	$2.57	-54.89	-19.48
Riverside	57.53	1.72	6.39	1.83
San Diego	30.05	1.83	72.23	16.00
San Francisco (city)	92.01	4.26	86.97	10.48
Alameda	93.65	3.54	-23.72	-3.33
Contra Costa	141.80	4.41	243.73	7.58
Los Angeles	174.39	2.86	26.74	3.91
Marin	37.90	1.77	58.69	10.94
San Mateo	53.29	2.51	13.29	1.43
$\overline{X}$ =	90.84%	$2.83	47.71%	$3.26

supply, and fire protection in those counties for which data were available rose by 100.64%, 73.22%, and 59.34%, respectively. Table 5.14 shows us that most of the cost increases for the sewerage and water supply functions were embodied in current operating expenses, as per capita current expenditures increased 90.84% and 47.71%, respectively, for those functions. In essence, these data have shown that the institutional change that has diminished the special district growth rates in these states has not led to a decline in the cost of providing the above-mentioned "district-type services." The costs of providing these services have, contrary to reformist predictions, risen quite substantially.

5.5 City Size and Service Costs: Some Further Evidence

The creation of local boundary commissions often has the goal, if not the effect, of consolidating local governmental jurisdictions. That is, as their actions are based on the premise that a centralized local governmental administration is the most efficient, i.e., able to exhaust economies of scale in service production, etc., they seek to dissolve and/or annex various special districts. The evidence brought forth thus far has suggested that decreasing the rate of proliferation of special districts in metropolitan areas does not necessarily enhance economic efficiency in the provision of municipal services, but rather may render the provision of such services more costly. As further evidence that hindering the growth of special districts with the expressed purpose of promoting a more consolidated local governmental

structure is not conducive to providing municipal services at lower costs, consider Table 5.15 below which depicts per capita amounts of city government finance items according to (city) population size. As seen in Table 5.15, per capita expenditures increase steadily with increases in city size, as do per capita local taxes. Also of interest is the fact that the level of per capita intergovernmental revenues, state and Federal, generally increase with city size. This does support the conjecture made in Chapter 4 that local public managers do have somewhat of an incentive to promote the dissolution and/or annexation of special districts and subsequently, a greater degree of local governmental consolidation, as they competitively seek additional revenue sources via intergovernmental aid. Such revenues contribute to the greater level of net revenues that the local public manager is assumed to maximize according to the bureaucracy model outlined earlier.

5.6 Special Districts and "Responsive" Local Government

For the sake of completeness, some mention of evidence regarding the ability of special districts to meet the demands for local public goods and services articulated by consumer-taxpayers should be made. The theoretical aspects of the potential for such demand articulation provided by special districts have been described in detail in earlier chapters. Empirically, perhaps the best measure of citizen satisfaction with locally provided services is obtained through a survey of citizen

Table 5.15. Per Capita Amounts of City Government Finance Items, by Population-Size Groups: 1976-77

Item	Municipalities having a 1975 population of--						
	1,000,000 or more	500,000 to 999,999	300,000 to 499,999	200,000 to 299,999	100,000 to 199,999	50,000 to 99,999	Less than 50,000
General Revenue	1 060.13	630.56	512.37	459.11	413.34	332.14	226.38
Intergovernmental Revenue	455.53	267.73	195.75	183.85	145.46	104.69	104.37
From State Governments	369.68	117.06	89.33	99.13	83.69	65.76	44.40
From Federal Government	80.48	137.79	92.22	69.87	50.85	33.47	54.54
General Revenue Sharing	28.61	22.58	21.45	22.07	18.18	14.43	13.05
From Local Governments	5.37	12.89	14.20	14.85	10.91	5.47	5.42
General Revenue From Own Sources	604.60	362.83	316.62	275.26	267.88	227.45	162.01
Taxes	475.49	273.55	200.23	196.56	189.28	158.90	102.90
Property	244.48	156.96	106.95	111.60	135.59	113.63	67.66
General Sales and Gross Receipts	63.99	32.34	31.23	26.51	22.37	21.90	14.68
Selective Sales and Gross Receipts	42.15	27.28	23.37	27.51	14.49	9.05	8.55
Other	124.87	56.97	38.67	30.94	16.83	14.32	12.00
Current Charges	84.30	60.06	75.64	47.54	52.65	46.78	36.22
Miscellaneous General Revenue	44.82	29.21	40.75	31.17	25.96	21.77	22.86
General Expenditure, All Functions	915.99	621.38	522.93	485.66	419.15	336.01	228.10
Capital Outlay	56.74	107.77	111.60	95.42	78.83	64.39	43.26
Other	859.24	513.61	411.34	390.25	340.31	271.62	184.84
Education	151.12	85.70	67.25	73.98	76.27	45.20	19.41
Other Than Capital Outlay	144.46	76.94	60.86	69.29	69.50	41.81	18.09
Highways	24.27	42.13	32.69	39.88	33.65	32.41	29.55
Other Than Capital Outlay	16.16	17.44	17.64	22.12	19.93	20.01	20.21
Public Welfare	202.64	52.32	10.56	15.90	7.79	2.09	1.40
Cash Assistance Payments	73.44	26.45	6.23	9.48	3.39	.42	.33
Hospitals	52.19	30.50	17.02	3.24	13.83	13.32	9.94
Other Than Capital Outlay	51.66	29.23	15.76	2.71	10.78	11.08	8.51
Health	13.98	15.72	11.03	6.76	5.37	2.57	1.87
Police Protection	90.70	66.82	58.13	48.83	44.52	40.27	32.11
Fire Protection	36.37	34.71	37.73	33.39	34.09	28.74	16.12
Sewerage	23.84	41.34	50.71	32.50	33.82	28.98	22.23
Other Than Capital Outlay	8.34	12.76	16.52	13.54	11.86	10.84	11.40
Sanitation Other Than Sewerage	27.56	17.78	16.90	21.64	13.74	11.15	9.16
Parks and Recreation	17.48	30.47	37.50	28.31	21.38	19.88	11.86
Housing and Urban Renewal	34.70	18.18	19.25	24.20	15.05	12.20	3.68
Other Than Capital Outlay	29.05	9.79	8.52	10.50	7.66	5.07	1.43
Libraries	8.30	7.03	6.69	6.70	6.07	5.49	2.77
Financial Administration	10.11	10.24	9.83	9.91	8.98	6.92	5.28
General Control	19.31	19.70	11.91	15.63	11.69	10.46	10.53
General Public Buildings	9.98	7.67	7.51	9.05	7.50	7.23	3.82
Other Than Capital Outlay	8.04	6.24	4.18	5.06	4.73	4.53	2.41
Interest on General Debt	53.53	27.56	24.50	25.76	16.81	12.38	9.47
All Other	139.90	113.52	103.73	89.96	68.58	56.68	38.82
Water Supply Revenue	28.37	30.07	30.93	34.63	28.18	26.52	26.91
Water Supply Expenditure	24.02	28.78	38.17	42.57	36.02	28.49	34.71
Current Operation	14.40	17.09	19.45	21.17	21.21	17.83	21.34
Capital Outlay	5.34	9.23	13.90	17.38	11.53	8.21	9.97
Interest on Debt	4.28	2.46	4.83	4.01	3.28	2.44	3.43
Other Utility Revenue	77.53	69.97	44.63	13.42	61.02	33.92	44.11
Other Utility Expenditure	113.59	83.84	51.63	17.04	65.67	34.77	41.07
Current Operation	76.99	61.80	34.19	14.93	51.98	25.68	35.57
Capital Outlay	27.32	18.39	14.76	1.94	10.96	6.67	4.27
Interest on Debt	9.28	3.65	2.67	.16	2.73	2.42	1.23
Total Expenditure for Personal Services	457.45	310.42	250.77	223.24	209.85	168.83	109.46

Source: U.S. Bureau of the Census, City Government Finances in 1976-77.

attitudes. A number of such surveys have been undertaken. A survey of California citizens, for example, found the following results:[7]

1. Citizen satisfaction with government increases as the size of the governmental unit decreases.

2. There is a strong desire for decentralization of authority and responsibility to local government.

3. In large central cities there is a significant demand for some form of neighborhood organization to affect the delivery of public goods and services to that community.

4. There is a strong preference by the citizens to maintain the autonomy of local governments, instead of elevating authority to higher levels of government.

5. Citizens want the right to determine the structure of local government through the ballot box rather than through the state legislature or appointed local officials.

With respect to the role of special districts in the efficient provision of local public services, each of these findings corroborates the conjecture that a local governmental institutional structure that allows individuals to choose the type of governmental organization most conducive to meeting their demands is one that is indeed consistent with the existence of special districts. As seen above in items 1 through 5, citizens of urban areas do frequently prefer service provision by smaller collective production-consumption units such as special districts since districts provide a means of 1) satisfying service demands, and 2) promoting responsiveness on the part of local public managers. Thus, if consumer-taxpayers are to be able to attain these advantages that they have voiced their preferences for, it is

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[7]Haug and Associates, "A Survey of California Citizen Attitudes," (Sacramento: Local Government Task Force, 1973).

imperative that legal institutions allow the freedom of choice that is necessary to ensure the establishment of such local governmental structures, when desired. Some of the effects of the absence of such choices have been partially described in the preceding sections of this chapter which dealt with the costs of providing municipal services. The effects of the absence of the right of individuals to choose the structure of government that they most prefer on demand articulation are exemplified by the results of the Swedish experience. The Swedish government, in over a twenty-year period, has reduced the number of local governmental units by 80% which is, coincidentally, the proposed reform put forth by the American Committee for Economic Development. The impacts of the Swedish reform have been studied and the following conclusions have been drawn:[8]

1. Voter participation in local elections declined appreciably as the local units increased in size.

2. Citizen participation in joining voluntary civic and service organizations declined appreciably as the local units increased in size.

3. As local units got larger, local elected officials differed more markedly from their constituents in such characteristics as income level, social status, level of education.

4. The resistance of local elected officials to spending programs decreased as the size of the local unit increased.

5. Local elected officials in larger units of local government tended to follow the "dictates of their conscience" rather than the demands of their constituents, probably due to lack of contact with and concern for constituent preferences.

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[8]Jorgen Westerstahl, Decision-Making Systems in 36 Swedish Communes (University of Gothenberg, 1970).

5.7 Summary

This chapter has been aimed at providing evidence that would either confirm or contradict the general hypothesis that the proliferation of special districts in metropolitan areas results in a local government organization that is excessively costly and unresponsive to consumer-taxpayer demands. The evidence brought forth leads to the rejection of this hypothesis. It was found that decreasing the number and/or availability of special districts in metropolitan areas will most likely increase the costs of providing local public goods and services. Furthermore, it was seen how eliminating the option of special district government is not conducive to effectively articulating the service demands of consumer-taxpayers residing in and around urban areas.

Chapter 6

CONCLUSIONS AND IMPLICATIONS

A number of conclusions can be drawn from the theoretical and empirical considerations offered in this study. First, special districts do provide an institution by which economic efficiency in the local public sector can be attained. Districts are, at times, capable of exhausting scale economies in the production of a number of services just as well as general purpose units of government are. Also, the diseconomies of scale that often arise in the provision of a number of municipal services due to increased density and/or distance-related costs can be eliminated or ameliorated through district provision. One example of this that was given above was the situation in which communities constructed their own sewerage collection systems and then contracted with a lower-cost special district for sewerage treatment services.

Consumption efficiency can also be enhanced by district provision as individuals whose preferences for local public goods and services are not met by existing general purpose units of government can form (theoretically, optimally-sized) districts that can better match their preferences. Evidence of this is the popularity of and demand for neighborhood governments in many urban areas as well as the survey data cited in Chapter 5 that displays greater citizen satisfaction

with service provision by smaller units of local government such as special districts.

A second major conclusion that can be drawn is that the institutional framework of the local government industry has a significant impact on the extent to which these efficiency norms can be attained. For example, it was seen in Chapter 3 that mutually advantageous trade via contracting is more likely to be consumated in a competitive local government environment, one characterized by free entry by special districts, than in a more consolidated metropolis.

Also, the nature of the rules regarding the creation and termination of special districts were seen to have a significant influence on the costs of providing municipal services. Contrary to the reform predictions, the evidence brought forth in Chapter 5 has shown that a local government environment that restricts the growth of special districts via boundary commissions tends to increase the costs of providing municipal services. Support was also provided in Chapter 5 for our "alternative interpretation" of the existence of special district growth restrictions as a means of creating entry barriers into the local government industry, to the advantage of the public managers of existing local governments and agencies.

For policy purposes, these conclusions lead to the proposition that a local governmental legal structure most conducive to the attainment of economic efficiency through district service provision is one in which districts can be created and dissolved by the communities of individuals who are being served by them, rather than placing such

decisions in the hands of groups of local public managers who may or may not act in the best interests of municipal residents.

In light of the current local public demands to limit local taxation, coupled with the desire to maintain service (quantity and quality) levels, special district service provision is an alternative that one would expect to be turned to more often in the future, given the ability to do so.

If districts are to become a partial answer to the fiscal crisis, however, more work is desirable in comparing the efficiency advantages of district versus general purpose units of local government.

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THE ROLE OF SPECIAL DISTRICTS IN THE EFFICIENT PROVISION OF LOCAL PUBLIC SERVICES

by

Thomas J. DiLorenzo

(ABSTRACT)

In this study the role of special districts in providing local public services is assessed. Using economic theory, it is determined, theoretically, that special districts do provide an institution by which consumption, production, and distributional efficiency in the provision of local public goods and services can be attained.

This view is contrasted to the view of special districts held by the "reform tradition," a set of ideas about how local government can be most efficiently organized. Assuming that a centralized local governmental administration is the most efficient, the reformists deduce that the proliferation of special districts will result in more costly provision of local public services as well as "unresponsive local government." These propositions have led at least five states to create state regulatory agencies that have effectively controlled the growth of special districts.

In light of these two contrasting views on the role of special districts in the provision of local public services, the "economic interpretation" and the refor tradition, the question of the effects of special districts on the cost of providing local public services

becomes an empirical one. The effects of restricting the growth of special districts in three states, California, Oregon, and Washington, on the cost of providing municipal services are examined. It is determined that restricting the growth of special districts increases the costs of providing such services, contrary to the reformist predictions.

Further evidence is presented that shows that consumer-taxpayers are more satisfied with the public services provided by smaller local governmental jurisdictions such as special districts than with many larger, general purpose units of government.

The evidence brought forth in this study also supports the conjecture that special district growth restrictions are a means of enhancing the monopoly power of existing local governmental jurisdictions. For policy purposes, it is concluded that a legal framework that permits the creation and dissolution of special districts by the groups of individuals served by them is most conducive to attaining consumption, production, and distributional efficiency in the provision of local public services.