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EXPLORING AN URBAN CONTRADICTION: THE DIVORCE OF MUNICIPAL EXPENDITURES FROM SOCIAL NEEDS

Richard Child Hill

UNIVERSITY OF WISCONSIN - MADISON

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ABSTRACT

The structure of local government in metropolitan areas shapes the life opportunities of urban residents. The expansion of the public sector of the economy in recent decades has coincided with the "separation of public goods consumption through suburbanization" in metropolitan areas. The municipal segregation of classes and status groups in metropolitan areas produces a contradiction: the divorce of municipal services from the social needs of urban residents. An exploratory investigation of data compiled for fifty-four metropolitan areas in 1962 reveals a number of demographic, economic, social, and political variables associated with the level of separation of municipal expenditures from the social needs of metropolitan residents. The data support the thesis that inequality in the distribution of income among families is translated through the dual mechanisms of residential segregation and political incorporation into inequality in the distribution of fiscal resources among municipal governments, resulting in the separation of municipal service levels from municipal service needs in the metropolis.

EXPLORING AN URBAN CONTRADICTION: THE DIVORCE OF MUNICIPAL EXPENDITURES FROM SOCIAL NEEDS

"Because the political subdivisions of a metropolitan area are largely autonomous in matters of local finance, differentials in per capita income create inequalities in both fiscal capacity and public service needs between municipalities. And because we entrust local government to effect substantial redistribution of real income through local public services, a serious problem follows from the divorcing of income from need."[1]

1. Introduction

The structure of local government in metropolitan areas in the United States shapes the life opportunities of urban dwellers. Institutions governing the allocation of public goods and services among metropolitan residents reside at the heart of urban politics. In industrialized, capitalist societies the distribution of valued commodities among families is largely governed by the distribution of "effective demand" among consumers engaging in price competition in the private marketplace. However, as advanced capitalist societies have evolved from predominantly goods-producing economies revolving around manufacture to service economies increasingly tied to government, the character of the allocation process has been changing.[2] The United States, as Daniel Bell has recently pointed out, is increasingly a society "in which public mechanisms rather than the market become the allocators of goods, and public choice rather than individual demand becomes the arbiter of services."[3]

Cities in the United States have experienced vast increases in the consumption of public goods and services in recent decades.[4] With expansion in the public sector, the "segregation of public goods consumption through suburbanization" has become a central element of the structure of inequality among metropolitan residents.[5] In the context of a fragmented system of local governments in the metropolis, municipal government often becomes an institutional arrangement for promoting and protecting the unequal distribution of scarce values among urban residents.

Residential location is an important resource in the urban political system. Advantaged segments of the metropolitan community seek to maximize control over scarce resources and maintain life-style values through homogeneous residential groupings. The more status-homogeneous the municipality, the easier it is, politically, to maintain the primacy of prized values. Municipalities come to be characterized by specialized service packages and recruit residents according to the principle: "All those who like the kind of life symbolized by these services come and join us, if you are white and can afford it."[6] Conflict over the production and distribution of scarce values that depend upon location for their realization, such as land use, education, housing, recreation, and cultural facilities, resides at the center of metropolitan politics in the United States.[7]

Municipal segregation among classes and status groups in the metropolis produces a contradiction: the divorce of fiscal resources from the social needs of urban residents. As the Advisory Commission on Intergovernmental Relations has recently stated, large central

cities and inner-ring suburbs are "in the throes of a deepening fiscal crisis. On the one hand they are confronted with the need to satisfy rapidly growing expenditure requirements triggered by the rising number of 'high cost' citizens. On the other hand, their tax resources are growing at a decreasing rate (and in some cases actually declining), a reflection of the exodus of middle and high income families and business firms from the central city to suburbia."[8] This process results in a double burden for municipalities with sizable low-income populations. Low-income communities need more in the way of public goods and services than do affluent municipalities; yet they have smaller fiscal resources with which to meet their needs. Impoverished municipalities often find themselves taxing at higher rates to gain relatively smaller revenues and services.

The separation of municipal expenditures from the social needs of urban residents has developed into one of the most pressing issues of urban political life. Yet there has been relatively little comparative urban research addressed to this problem. This paper consists of an exploratory analysis of factors associated with variations among metropolitan areas in the United States in one dimension of the urban fiscal dilemma.

2. Elements of the Fiscal Dilemma

A number of interrelated elements combine to make up the metropolitan fiscal dilemma. These elements include level of municipal service needs, size of municipal tax base, level of municipal tax effort, and level of municipal services.

Level of municipal service needs refers to the service requirements of the city populace. The level of municipal service needs varies with the social and economic characteristics of the resident population. As the Advisory Commission on Intergovernmental Relations has argued, the poor are generally "high cost" citizens who require much more in the way of municipal services than do the more economically advantaged segments of the metropolitan population.[9] In general, the more impoverished the municipality, the greater the level of municipal service needs.

Municipal tax base, or level of fiscal resources, refers to the total of permanent assets and current income within the city.[10] Sources of municipal revenue vary by region within the nation, by state within regions, by metropolitan area within states, and by municipality within metropolitan areas. Local governments usually derive the major share of their revenue from taxes on mercantile, manufacturing, and residential property. Municipalities also derive revenue from sales taxes on commodities, payroll taxes, and personal income taxes.[11] In general, the wealthier the municipality, the larger the municipal tax base.

Municipal tax effort refers to the rate at which the city taxes itself to provide revenue for municipal services. The tax effort indicates the proportion of real property and income allocated to municipal functions. There is widespread variation in the level of tax rates among municipalities in metropolitan areas in the United States.[12] In general, the wealthier the municipality, the lower the tax effort required to generate an adequate level of services.

Level of municipal services refers to the level of per capita general expenditures generated by a municipality. Municipal general

expenditures fall into many service categories, including education, highways, public welfare, health and hospitals, police and fire protection, sanitation, parks and recreation, housing and urban renewal, and libraries.[13] The municipal service level is a function of the municipal tax base multiplied by the municipal tax effort supplemented to a varying extent by federal and state transfers of revenue.

There are at least three basic dimensions of the fiscal dilemma, which vary among metropolitan areas in the United States. One dimension consists of the degree of inequality in the distribution of fiscal resources (tax base or potential for producing goods and services) among municipalities in the metropolitan area.[14] A closely related property of the metropolitan fiscal problem is the degree of inequality in the distribution of tax burden among municipalities in the metropolis. Tax burden refers to the tax rate required to produce an adequate level of goods and services in the municipality. A third, and the most important, component of the fiscal dilemma in the metropolis is the relationship between the distribution of service levels and the distribution of service needs among municipalities in the metropolitan area. Here the focus is on the degree of correlation or disjunction between service needs and actual service levels among municipalities in the metropolis. The unequal distribution of fiscal resources among municipalities does not necessarily imply the divorce of service needs from service levels, since low-income municipalities may assume heavy tax burdens in the attempt to meet service requirements, and since the fiscal resources of impoverished cities may be supplemented by state and federal intergovernmental transfers of revenues. The degree of

separation of municipal services from service needs among metropolitan areas is the object of investigation in this paper.

3. Methods and Data

Comparative research on the divorce of municipal services from social needs among governments in metropolitan areas poses several issues of measurement. First, how are the local units of government to be defined and aggregated? Second, what are appropriate indicators of level of social needs and municipal service levels? Third, what is an appropriate measure of the degree of separation of municipal services from social needs in the metropolis? These questions will be addressed in turn.

The principal approach to research on fiscal disparities among municipalities in metropolitan areas in the United States is the body of research devoted to explaining fiscal differences among central cities and suburbs in urban areas.[15] In this type of investigation suburban characteristics are averaged together and compared to central-city characteristics. The level of government fiscal disparities is measured by the ratio of central-city to suburban characteristics, and an attempt is made to explain variations in the city-suburb ratio through the comparative analysis of urban areas. This research assumes that suburbs are sufficiently similar to justify an aggregated comparison with the central city. Yet, as the Advisory Commission on Intergovernmental Relations had noted, "Of growing significance are the fiscal disparities among rich and poor suburban communities in many of the metropolitan areas--disparities that often are even more

dramatic than those observed between central cities and suburbia in general. Many of the older suburban communities are taking on the physical, social and economic characteristics of the central city. This type of community is especially vulnerable to fiscal distress because it lacks the diversified tax base that has enabled the central city to absorb some of the impact of extraordinary expenditure demands."[16] It would seem appropriate to go beyond the central city-suburb dichotomy and attempt to develop hypotheses and measurement procedures addressed to the disjunction between expenditures and service needs among all municipalities in the metropolitan area.

Turning to the second question, there are a number of indicators of the level of service needs in a municipality, including the level of health, education, and welfare of the resident population; the quality of housing stock; and the state of the physical plant. The level of poverty in the municipality, measured by the percentage of families with incomes at or below the federally defined poverty line in 1959, is the indicator of municipal service needs adopted here. This choice seems reasonable, since, in one form or another, public policies dealing with welfare, education, housing, and health are tied to inequities generated by the structure of economic institutions in the metropolis and nation.[17] The 1960 Census of Population provides income data for individual municipalities with populations of 2500 and larger in metropolitan areas in the United States.[18]

The 1962 Census of Governments provides data on service expenditure levels among municipalities in metropolitan areas--on undifferentiated general expenditure levels for all municipalities in metropolitan areas[19]

and on individual municipal expenditure levels by service categories for municipalities with populations of 10,000 and more in metropolitan areas.[20] In this study the measure of municipal service level is the level of municipal per capita general expenditures in 1962. The adoption of general expenditures as the measure of municipal service level represents a compromise in the research design. Under ideal conditions we would have measured service levels by the level of expenditures in those service categories that most closely reflect the service needs of lower-income groups, such as education, public welfare, health and hospitals, housing, and urban renewal. To do so, however, would have necessitated excluding from the analysis most of the suburban municipalities in the United States. On the other hand, the price paid for including a much larger number of municipal governments in the measurement process is a degree of vagueness in the operational definition of municipal service levels.

If municipal service level is measured by per capita general expenditures and municipal service need is measured by level of poverty in the municipality, what is an appropriate indicator of the degree of separation of service levels from service needs in the metropolitan area? In this study we have settled upon the Pearson product-moment correlation between level of poverty and level of per capita general expenditures by municipal governments in the metropolitan area.

Stinchcombe has recently argued that the correlation coefficient is an important property of social and political structures. According to Stinchcombe, "the influence of a value in social life can be considered as an interaction effect, in which variations in the degree of commitment to a value have different effects depending upon the

relative amounts of power held by deeply and shallowly committed decision makers." He further suggests that "a value will have more effect in a society, the higher the correlation between power and commitment to the value in that society. The degree of institutionalization of a value is the correlation between commitment to that value and power. The correlation coefficient would ideally be computed over decision making units (rather than persons) and a measure of the amount of power of the kind useful for achieving the value would be most convenient."[21]

In this investigation the decision-making unit is the municipal government. The encompassing social collective is the metropolitan area. The degree of correlation between municipal service levels and municipal service needs indicates the degree of institutionalization of the value of matching fiscal resources to social needs. Another way of putting the matter is that the degree of positive correlation between municipal poverty level and municipal general expenditures indicates the extent to which the poor are able to translate their needs into service levels in the metropolis. A metropolitan area with a positive correlation between these two variables is one in which the more impoverished municipalities tend to have higher expenditure levels. A metropolitan area with a negative correlation between these variables is one in which the more impoverished municipalities tend to have the lowest expenditure levels. A metropolitan area with no relationship between service needs and service levels displays a random pattern. In other words, as the size of the correlation coefficient goes from negative to positive, the degree of separation of municipal services from municipal service needs declines.

While the correlation coefficient captures the rank order relationship between municipal service level and municipal service needs,

it says nothing about the distribution of tax burden among municipalities or about the size of the gap between expenditures and needs in the metropolis. Therefore, this study should be viewed as an exploratory investigation of one important dimension of the fiscal dilemma in metropolitan areas in the United States.

The Data

We adopted the following procedure to construct a correlation measure of the separation of municipal service levels from social needs in the metropolis. Combining the municipal income data from the 1960 Census of Population with the expenditure data from the 1962 Census of Governments provides information on the income and expenditure levels of municipal governments of population size 2500 or more in metropolitan areas. For each metropolitan area, data on level of poverty and level of per capita general expenditures among local municipalities were collected, coded, and punched on IBM cards. Then, for each metropolitan area containing eight or more municipalities of population size 2500 or more, a correlation coefficient was computed from the component municipal poverty and expenditure data.[22] In summary, our population of metropolitan areas consists of SMSAs with populations of 250,000 or more and containing eight or more municipalities of population size 2500 or more. There were fifty-four metropolitan areas in the United States in 1962 that displayed these characteristics. This set of SMSAs constitutes the basis for the ensuing analysis.

Tables 1 and 2 about here

Table 1 presents the measures of degree of separation of municipal expenditures from social needs for each of the fifty-four metropolitan areas in this analysis. Table 2 presents the mean, standard deviation, and range in separation of expenditures from need. As can readily be seen, there is wide variation among metropolitan areas in the size and direction of the zero-order correlation between level of poverty and level of per capita general expenditures among component municipalities.[23] Separation of municipal expenditures from social need ranges from a high of r = .689 in Phoenix, Arizona, to a low of r = .637 in Allentown-Bethlehem-Easton, Pennsylvania. Among this group of SMSAs the average correlation between municipal poverty and municipal expenditures is r = .110 with a standard deviation of r = .347.[24]

What are some of the factors associated with variations in the degree of separation of expenditures from need among this sample of metropolitan areas? The remainder of this investigation is organized according to a sequence of empirical findings. A brief rationale accompanies each set of findings. We conclude with a brief summary of findings and a discussion of implications for further research.

4. Findings

Two general criteria structured our collection of independent variables for this analysis. The first criterion was descriptive import. We wished to include variables that consistently appear in comparative research on metropolitan areas in the United States. Secondly, we gathered data according to a general working hypothesis. Following Wilbur Thompson, we hypothesized that inequality in the distribution of income among families is translated through the dual

mechanisms of residential segregation and political incorporation into inequality in the distribution of fiscal resources among municipal governments in the metropolis.[25] Municipal inequality in fiscal resources fosters the separation of municipal service levels from municipal service needs. Thus we expected that level of family income inequality, residential segregation by social class and race, and inequality in the distribution of fiscal resources among municipalities would be directly associated with the separation of municipal expenditures from social needs in the metropolis.

Table 3 about here

1. Metropolitan areas in the Northeast and Midwest tend to have lower levels of separation of municipal expenditures from need while areas in the West and South tend to have higher levels. Table 3 presents data on the relationship between regional location of a metropolitan area and degree of separation of municipal expenditure from need. The zero-order correlation between the dummy variable, absence or presence of a metropolitan area in the Northeast, and divorce of service levels from service needs is $r = -.226$; in the Midwest it is $r = -.156$; in the West it is $r = .302$; and in the South it is $r = .123$. Southern metropolitan areas tend to have higher levels of family income inequality[26] and residential segregation by race and social class[27] than northeastern and midwestern SMSAs; this may partially explain the findings. For reasons outlined below, we suspect that the positive association between the western location of a metropolis and separation of municipal services from needs is linked to the relatively low level of manufacturing activity in western states.

2. Larger, older, more densely populated, and more urbanized metropolitan areas tend to have lower levels of separation of municipal expenditures from service needs. These were unexpected findings. We expected just the reverse to be the case. Metropolitan size and age are directly linked to municipal differentiation, government fragmentation,[28] and inequality in the distribution of fiscal resources among municipalities, which we presumed to underpin the divorce of services from needs in the metropolis. But, to the contrary, it appears that there is a tendency for younger, smaller metropolitan areas to have more pronounced separation of municipal services from needs.

3. The higher the level of manufacturing activity in the metropolitan area, the lower the separation of municipal expenditures from service needs. There are two reasons why we expected this to be the case. First, metropolitan economies dominated by manufacturing industries tend to have lower levels of family income inequality.[29] This implies less of a divorce of municipal expenditure from need. Secondly, metropolitan areas specializing in manufacturing are areas in which the poorer segments of the population frequently reside in high-tax-base, industrial municipalities allowing for higher expenditure levels. Our line of reasoning is supported by the evidence presented in Table 3. Metropolitan areas specializing in manufacturing tend to have less separation of expenditure from need ($r = -.434$) while this variable tends to increase with specialization in trade ($r = .332$) and services ($r = .187$).

Table 4 about here

4. There is essentially no relationship between the percentage of the metropolitan population that is nonwhite and the separation of municipal expenditures from service needs. This is also an unexpected finding. Past research has revealed that nonwhite concentration is directly linked to family income inequality,[30] residential segregation by race,[31] and inequality in the distribution of fiscal resources among municipalities in metropolitan areas, but, as revealed in Table 4, this variable is not associated with the divorce of expenditures from needs as measured in this investigation.

5. The separation of municipal expenditures from service needs varies directly with level of poverty and family income inequality and inversely with the level of median income and occupational earnings in the metropolis. Data presented in Table 4 provide firm support for one central tenet of our working hypothesis. As expected, the divorce of municipal expenditure from service need is directly linked to family income inequality ($r = .378$), racial income inequality ($r = .181$) and the level of poverty in the metropolitan area ($r = .443$). On the other hand, the higher the level of family income ($r = -.359$) and occupational earnings, the lower the separation of municipal services from service needs. These data highlight the link between the structure of the local economy and the public finance dilemma.

Table 5 about here

6. The greater the residential segregation by social class and by race and the more segregated the distribution of housing by quality in the metropolis, the greater the separation of municipal expenditures from service needs. The second tenet of the working hypothesis is a

postulated direct link between residential segregation by social class and race and the divorce of municipal expenditures from social needs in the metropolis. Income is unequally distributed among social classes and racial groups. As residential segregation by class and race increases, inequality in the distribution of income by neighborhood increases. When class- and status-homogeneous neighborhoods come to coincide with municipal boundaries, inequality in the distribution of fiscal capacity among municipal governments arises. The distribution of social classes by residential area and the distribution of tax base by neighborhood are linked to the degree of segregation of housing by quality. It seems reasonable to expect that the greater the segregation of housing by quality, the greater the inequality in the distribution of resources among municipalities and the greater the divorce of expenditures from social needs in the metropolis.

In a recent study of patterns of urban ecological organization, Avery Guest collected 1960 data from the Census of Housing on a variety of social characteristics of families and physical characteristics of housing by census tracts for seventeen metropolitan areas.[32] For each metropolitan area, Guest coded data for each census tract on the proportion of families with white-collar heads of household, the proportion of dwelling units sound, with all plumbing, and the proportion of dwelling units with at least five rooms. From this detailed information on census tracts, he computed the standard deviation in percent white-collar, percent sound housing, and percent housing units with at least five rooms across census tracts for each metropolitan area. Combining Guest's data with our own yielded fourteen metropolitan areas

for which joint data were available. In addition, we coded data on the level of residential segregation by race in the central cities of many of the metropolitan areas in this study from the Taeubers' seminal investigation of racial segregation in U.S. cities.[33]

As revealed in Table 5, the residential segregation of social classes is directly related to the separation of municipal expenditures from social needs ($r = .223$) and there is a slight positive association between central city racial segregation and the divorce of expenditures from needs in the metropolis ($r = .159$). The relationship between the divorce of expenditures from needs and segregation of sound housing ($r = .645$) and segregation of housing with at least five rooms ($r = .512$) is strong and in the predicted direction. While findings from such a small sample of cases can be hardly more than suggestive, the available evidence does provide firm support for the second part of the working hypothesis.

Table 6 about here

7. The more fragmented the government structure of the metropolitan area, the greater the separation of municipal expenditures from service needs. The proliferation of municipal governments in the metropolis provides a structural basis for the unequal distribution of fiscal resources among local governments and the divorce of municipal expenditures from service needs. The concept of government fragmentation would seem to refer to both the absolute number and the density of governments in the metropolitan area. However, as is revealed in Table 6, only the density of municipalities ($r = .157$) and the density

of governments of all types (r = .251) are directly related to the separation of expenditures from needs in the metropolis.

8. The more unequal the distribution of fiscal resources among municipalities in the metropolitan area, the greater the separation of municipal expenditures from service needs. In part, inequality in the distribution of fiscal resources among municipal governments grows out of family income inequality and residential segregation by class and race coinciding with political incorporation in the metropolis. The third tenet in the working hypothesis postulates a direct link between inequality in the distribution of fiscal resources among municipalities and the separation of municipal services from social needs.[34]

There are a number of possible indicators of the level of fiscal resources in a municipality. In this investigation the median level of family income is adopted as the measure of level of fiscal resources or capacity to produce public goods and services in the municipality.[35] Our measure of governmental inequality in the distribution of fiscal resources is the standard deviation in median family income among municipalities of population size 2500 or more in the metropolitan area.[36] The larger the standard deviation, the greater the inequality in the distribution of fiscal resources among municipalities.

Data presented in Table 6 provide a measure of support for the third part of our working hypothesis. There is a direct relationship between inequality in the distribution of median family income among municipalities and the separation of expenditures from needs (r = .273). The divorce of expenditures from needs is also linked to the unequal distribution of poverty (r = .242), the size of upper-income groups

(r = .127), and education (r = .143) among municipalities in the metropolis.

Table 7 about here

9. Metropolitan areas located in states in which federal aid is a relatively high percentage of state and local revenue and in states in which state general expenditures are a relatively high percentage of state and local general expenditures tend to have higher levels of separation of municipal expenditures from service needs. The content of local municipal expenditures varies from state to state as well as within states. The provision of some key services depends upon the state-local system for assigning expenditure responsibilities. For example, the allocation of responsibility for underwriting public welfare expenditures is one of the more important determinants of level of noneducational expenditures at the local level. This function may be assigned to the state, the locality, or some combination unique to the metropolitan area.[37]

Table 7 provides data on the relationship between federal, state, and local tax and expenditure assignments and the separation of municipal expenditures from service needs in metropolitan areas. Metropolitan areas in states in which federal aid constitutes a relatively high percentage of state and local revenue tend to have greater separation of expenditures from service needs among municipalities (r = .417). As the state proportion of state and local taxes (r = .375) and state and local direct general expenditure (r = .433) increases, the separation of municipal expenditures from service needs increases.

In part, this pattern of relationships is explained by the fact that federal aid, as a percentage of state and local expenditures,

tends to be higher in less industrialized, lower-income states in the South and West, which tend to contain metropolitan areas with more pronounced separation of municipal expenditures from service needs.[38] Also, state expenditures tend to be a high proportion of the state and local budget in states where local municipalities have low average expenditure levels fostering an imbalance between expenditures and needs. It may also be the case that in states with high state-to-local expenditure ratios states assume responsibilities for services that are otherwise relatively equally distributed among municipalities, leaving leeway for more unequal distribution of remaining service expenditures among local municipal governments.

A Multivariate Analysis

We have surveyed a number of empirical hypotheses and partial explanations for variations in the separation of municipal expenditures from service needs in the metropolis. A number of questions arise at this point. To what extent is the impact of any particular variable independent of its relationship to other variables under discussion? What is the combined predictive power of the independent variables? Multiple correlation and regression analysis help provide answers to these questions. We have data for the fifty-four metropolitan areas on all of the variables except class, race, and housing segregation; this constitutes the data base for the regression analysis.

Table 8 about here

Results from the first regression analysis are presented in Table 8. Inequality in the distribution of fiscal resources among

municipalities has the strongest independent relationship to the separation of municipal services from need (rp = .328) followed by level of manufacturing activity (rp = -.296) and percent of the SMSA population residing in the urbanized area (rp = -.282). Location of a metropolitan area in the South reverses direction under regression, and the influence of family income inequality and government fragmentation are negligible after the influences of other variables are taken into consideration. Overall, the variables in this model account for 41 percent of the total variation in the separation of municipal expenditures from service needs in the metropolis.

Table 9 about here

Federal and state expenditure assignments are added to the regression model in Table 9. Federal aid (rp = .244) and state expenditures as a percent of state-local outlays (rp = .181) maintain independent relationships to the divorce of municipal expenditures from service needs. The addition of federal and state contextual variables adds 12 percent (R^2 = .54) to the total variation in separation of needs from expenditures explained by the variables in the regression equation.

5. Summary and Conclusions

The political incorporation and municipal segregation of classes and status groups in the metropolis fosters inequality in the distribution of fiscal resources among local governments and results in the divorce of municipal expenditures from the social needs of urban residents. Increases in the demand for public goods and services among urban residents continues, and the governmental allocation of scarce

resources is coming to parallel the importance of the private marketplace.[39] Metropolitan politics is increasingly formed by conflicts over the production and distribution of resources like education and housing, which depend upon municipal location for their realization.[40] The divorce of municipal expenditures from the social needs of urban residents becomes a central ingredient of urban political life.

In this exploratory investigation, we measured the separation of municipal services from service needs in the metropolis by the zero-order correlation between level of poverty and level of per capita general expenditures among municipalities of population size 2500 and larger in the metropolitan area. The empirical findings are largely consistent with the working hypothesis underlying this study. We found that the degree of separation of municipal expenditures from service needs varied directly with level of family income inequality, degree of residential segregation by class and race, degree of segregation of housing by quality, and level of inequality in the distribution of fiscal resources among municipalities in the metropolis. In addition, we discovered that older, larger, and more densely populated metropolitan areas, areas specializing in manufacturing, and metropolitan communities located in the Northeast and Midwest tended to have less separation of municipal expenditures from service needs. Our analysis also revealed that metropolitan areas located in states in which federal and state revenues and expenditures constitute a high proportion of total state and local government outlays tended to have higher levels of separation of municipal expenditures from service needs.

A few caveats are in order by way of conclusion. First of all, there are a number of dimensions to the fiscal dilemma in metropolitan areas. In this investigation we have sought to discover factors associated with variations in one dimension: the degree of separation of municipal expenditures from service needs among metropolitan residents. Our correlation measure of this element captures the rank order relationship between general municipal service levels and municipal service needs but says nothing about the distribution of tax burden among municipalities, the size of the gap between expenditures and service needs, or the extent to which expenditures in specific service categories are matched to specific service needs. Secondly, this is a study of large metropolitan areas and the findings cannot be generalized to all metropolitan areas in the United States.

In other words, much remains to be done. The findings revealed in this analysis are provocative and suggest the value of further research employing more sophisticated measurement procedures and larger samples. This exploratory study constitutes but a beginning.

FOOTNOTES

[1]Wilbur Thompson, A Preface to Urban Economics (Baltimore: Johns Hopkins University Press, 1965), pp. 105-106.

[2]In 1929 the "nonprofit" sector of the economy accounted for 12.5 percent of all goods and services purchased in the United States. It rose to 27 percent by 1963 and is still rising. In 1929, 9.7 percent of the labor force was employed by government and nonprofit institutions; this figure rose to 20 percent by 1960. Government employment has risen at a rate of 4.5 percent per year since 1929. Cf. Eli Ginzberg et al., The Pluralistic Economy (New York, 1965), p. 86; cited in Daniel Bell, The Coming of Post-Industrial Society (New York: Basic Books, 1973), p. 147.

[3]Bell, Post-Industrial Society, p. 159.

[4]In recent years the rate of growth in expenditures, revenues, and employment in state and local government has outstripped the growth rate of all other parts of the economy, public or private. Between 1954 and 1964, federal general expenditures increased 24 percent while state-local expenditures grew by 126 percent. In 1963-64, state and local expenditures were 42 percent of total general expenditures and 64 percent of total expenditures if defense and foreign policy outlays are excluded. At the same time, state and local taxes increased, as a proportion of national income, from 7 percent in 1954 to 21 percent in 1963. Cf. Alan K. Campbell and Seymour Sacks, Metropolitan America Fiscal Patterns and Governmental Systems (New York: The Free Press, 1967), pp. 5-11.

[5]Norton E. Long, "Political Science and the City," in Urban Research and Policy Planning, ed. Leo F. Schnore and Henry Fagin (Beverly Hills: Sage Publications, 1967), pp. 253-255.

[6]Oliver P. Williams, "Life-Style Values and Political Decentralization in Metropolitan Areas," in Community Politics: A Behavioral Approach, ed. Charles Bonjean, Terry Clark, and Robert Lineberry (New York: The Free Press, 1971), p. 59.

[7]Ibid.

[8]Advisory Commission on Intergovernmental Relations, Fiscal Balance in the American Federal System, Vol. 2, Metropolitan Fiscal Disparities (Washington, D.C.: Government Printing Office, 1967), p. 5.

[9]Ibid.

[10]John E. Coons et al., Private Welath and Public Education (Cambridge, Mass.: Harvard University Press, 1970), p. 43.

[11]Cf. Dick Netzer, Economics of the Property Tax (Washington, D.C.: Brookings Institution, 1966); Harvey Brazer, City Expenditures in the United States (New York: National Bureau of Economic Research, 1959).

[12]For example, the range in variation in per capita taxes as a percentage of per capita income among the central cities of the thirty-seven largest SMSAs in 1965 was from 4 percent in New Orleans, Louisiana, to 13 percent in Newark, New Jersey. Cf. Advisory Commission on Intergovernmental Relations, Metropolitan Fiscal Disparities, Table 23, p. 80.

[13]The percentage breakdown in expenditures by function among municipalities in metropolitan areas in 1962 was as follows: education (14.5 percent); highways (12.6 percent); public welfare (5.3 percent); health and hospitals (6.6 percent); police protection (10.9 percent); fire protection (7.3 percent); sanitation (11.1 percent); parks and recreation (4.8 percent); housing and urban renewal (4.8 percent); libraries (1.6 percent); financial administration and general control (4.8 percent); general public buildings (1.5 percent); interest on general debt (3.8 percent); and other and unallocable (10.4 percent). Cf. 1962 Census of Governments, volume 5, Local Government in Metropolitan Areas (Washington, D.C.: Government Printing Office, 1962), Table 2.

[14]I have analyzed this dimension of the fiscal dilemma in another research report.

[15]Cf. Advisory Commission on Intergovernmental Relations, Metropolitan Fiscal Disparities; and Alan K. Campbell and Seymour Sacks, Metropolitan America.

[16]Advisory Commission on Intergovernmental Relations, Metropolitan Fiscal Disparities, p. 6.

[17]Wilbur Thompson, A Preface, p. 105.

[18]The fact that the census provides income data only for municipalities of population size 2500 and more imposes an important constraint on our data collection and a caveat to ponder in interpreting our findings. Under ideal conditions we would have collected income and expenditure data on all incorporated municipalities for each SMSA. Although one-half of the municipalities in metropolitan areas have populations less than 2500, these municipalities account for only 2 percent of the total metropolitan population. Cf. John C. Bollens and Henry Schmandt, The Metropolis (New York: Harper and Row, 1965), p. 157. Yet this is an important 2 percent of the population to the extent that it contains a disproportionate share of the very wealthy and/or the very poor members of the metropolitan community. For the purposes of this analysis, we are assuming that our measure of separation of municipal expenditures

18 (continued)
from needs is an accurate reflection of the governmental structure of the metropolitan area as a whole.

[19]General expenditure refers to all expenditures of a government other than utility expenditure, liquor stores expenditure, and employee retirement expenditure. Cf. 1962 Census of Governments, Vol. 5, Local Government in Metropolitan Areas (Washington, D.C.: Government Printing Office, 1962), pp. 697-698.

[20]Cf. 1962 Census of Governments, Vol. 4, Government Finances, No. 3, Finances of Municipalities and Township Governments (Washington, D.C.: Government Printing Office, 1962).

[21]Arthur L. Stinchcombe, Constructing Social Theories (New York: Harcourt, Brace and World, 1968), pp. 183-184.

[22]The choice of metropolitan areas with eight or more municipalities was somewhat arbitrary. We wanted metropolitan areas with enough municipalities to provide a reasonably reliable correlation coefficient while at the same time retaining a large enough number of metropolitan areas to allow for statistical controls and regression analysis. The empirical analysis was also run on metropolitan areas with ten or more municipalities of appropriate size and the results were similar to those obtained in this analysis. We selected metropolitan areas with population sizes of 250,000 and above because some of the independent variables employed in this analysis were gleaned from sources limited to the analysis of larger metropolitan areas.

[23]There was complete municipal data for most metropolitan areas. On occasion we encountered a metropolitan area in which one or a few municipalities lacked general expenditure data. In those instances we computed the correlations with missing data. Missing data always occurred in fewer than one-third of the municipalities in a metropolitan area, usually in considerably fewer.

[24]Again, it should be emphasized that this is a measure of the zero-order relationship between expenditures and service needs among municipal decision-making units in the metropolitan area. This measure does not capture the distribution of tax burden among municipalities. Indeed, it is interesting to note that some of the metropolitan areas, like Milwaukee and Newark, which have central cities that carry very heavy tax burdens relative to their suburbs, are areas with relatively high positive correlations between level of poverty and level of per capita expenditures among municipalities.

[25]Wilbur Thompson, A Preface, p. 105.

[26]George Dowdall, "Intermetropolitan Differences in Family Income Inequality in 1960," paper presented at the 35th Annual Meeting of the North Central Sociological Association, May 1973.

[27]Robert Jiobu and Harvey Marshall, "Urban Structure and the Differentiation between Blacks and Whites," American Sociological Review 36 (August 1971): 638-649.

[28]John Bollens and Henry Schmandt, The Metropolis, ch. 6.

[29]John Mattila and Wilbur Thompson, "Toward an Econometric Model of Urban Economic Development," in Issues in Urban Economics, ed. Harvey S. Perloff and Lowdon Wingo (Baltimore, Md.: Johns Hopkins University Press, 1968), pp. 63-80.

[30]Ibid.

[31]Robert Jiobu and Harvey Marshall, Urban Structure.

[32]Cf. Avery M. Guest, "Retesting the Burgess Zonal Hypothesis: The Location of White Collar Workers," American Journal of Sociology 76 (May 1971): 1094-1108.

[33]Karl Taeuber and Alma Taeuber, Negroes in Cities (Chicago: Aldine, 1965).

[34]As noted above, the expenditure "effect" of inequality in the distribution of fiscal resources among municipalities can be counteracted by extra "tax effort" or intergovernmental transfer of revenues.

[35]As Riew has noted, "When the local government relies principally on property as its tax base, personal income as a fiscal resource may seem unimportant. But it may be an important potential tax base. Furthermore, since all taxes are paid out of income, that is ultimately what measures best the ability to pay taxes." Cf. John Riew, "Fiscal Disparities in the Milwaukee, Wisconsin, Metropolitan Area," in Advisory Commission on Intergovernmental Relations, Metropolitan Fiscal Disparities, p. 296.

[36]The standard deviation is a measure of variability about the mean of a given characteristic. In this case the standard deviation in median municipal family income for a metropolitan area indicates the extent to which municipalities in the metropolis deviate in median income from the average for all municipalities in the area. For example, a metropolis with a standard deviation in municipal income of zero would be a metropolitan area in which each municipality had the same median family income. The larger the standard deviation, the greater the deviation of the wealth of some municipalities from the average income of all municipalities in the SMSA.

[37]Advisory Commission on Intergovernmental Relations, Metropolitan Fiscal Disparities, p. 70.

[38]Federal aid as a percentage of state and local revenue tends to be higher in states with metropolitan areas with the following characteristics: presence in South and West, low levels of manufacturing activity, higher poverty, family income inequality, and inequality in the distribution of fiscal resources among municipalities. State general expenditures as a percentage of state and local general expenditures are higher in states containing metropolitan areas with the following characteristics: presence in South, high poverty levels, high family income inequality, and higher inequality in the distribution of fiscal resources among municipalities.

[39]Norton Long, "Political Science and the City," pp. 255-256.

[40]Oliver P. Williams, "Life-Style Values," p. 58.

Table 1. Degree of Separation of Public Expenditures from Social Needs for Fifty-Four SMSAs, 1962

Metropolitan Area**	Separation of Expenditures from Needs*	
1. Phoenix, Ariz.	-.689	(8)***
2. Portland, Ore.	-.659	(12)
3. Bakersfield, Cal.	-.599	(8)
4. Johnston, Pa.	-.585	(17)
5. Tulsa, Okla.	-.585	(9)
6. Fresno, Cal.	-.464	(8)
7. Dallas, Tex.	-.251	(12)
8. Birmingham, Ala.	-.263	(17)
9. Tampa-St. Petersburg, Fla.	-.251	(20)
10. Providence-Pawtucket-Warwick, R.I., Mass.	-.214	(16)
11. Hartford, Conn.	-.124	(15)
12. San Bernadino-Riverside-Ontario, Cal.	-.083	(22)
13. Dayton, Ohio	-.081	(15)
14. Pittsburgh, Pa.	-.061	(97)
15. Minneapolis-St. Paul, Minn.	-.034	(40)
16. Miami, Fla.	-.027	(15)
17. Chicago, Ill.	-.021	(129)
18. Youngstown-Warren, Ohio	-.017	(11)
19. Duluth-Superior, Minn.	.004	(11)
20. Kansas City, Mo.	.044	(18)
21. Atlanta, Ga.	.056	(13)
22. Cleveland, Ohio	.063	(48)
23. Utica-Rome, N.Y.	.066	(10)
24. Boston, Mass.	.068	(51)***
25. San Jose, Cal.	.080	(14)
26. Wilkes Barre-Hazelton, Pa.	.089	(20)
27. Seattle-Everett, Wash.	.101	(14)

Table 1. (continued)

Metropolitan Area**	Separation of Expenditures from Needs*	
28. Lancaster, Pa.	.121	(9)
29. Fort Worth, Tex.	.131	(15)
30. Los Angeles-Long Beach, Cal.	.170	(78)
31. Philadelphia, Pa.	.199	(78)
32. Houston, Tex.	.224	(10)
33. Akron, Ohio	.249	(11)
34. New York, N.Y.	.260	(75)
35. San Diego, Cal.	.285	(10)
36. Harrisburg, Pa.	.308	(14)
37. Reading, Pa.	.330	(10)
38. Albany-Schenectady-Troy, N.Y.	.363	(15)
39. Paterson-Clifton-Passaic, N.J.	.379	(67)
40. San Francisco, Cal.	.393	(52)
41. Cincinnati, Ohio	.393	(34)
42. Denver, Colo.	.408	(15)
43. St. Louis, Mo.	.409	(64)
44. Beaumont-Port Arthur, Tex.	.436	(10)
45. Fort Lauderdale-Hollywood, Fla.	.453	(10)
46. Gary-Hammond-East Chicago, Ind.	.469	(13)
47. Jersey City, N.J.	.481	(10)***
48. Columbus, Ohio	.486	(11)
49. Detroit, Mich.	.500	(56)
50. Milwaukee, Wis.	.507	(22)
51. Newark, N.J.	.562	(43)
52. Syracuse, N.Y.	.585	(12)
53. Buffalo, N.Y.	.608	(18)
54. Allentown-Bethlehem-Easton, Pa.	.637	(17)

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 and above in the SMSA.

Table 1. (continued)

** Standard metropolitan statistical areas with population size of 250,000 or more and containing eight or more municipalities of size 2500 or more.

*** Number of municipalities of population size 2500 or more in the standard metropolitan statistical area, 1960.

Table 2. Mean, Standard Deviation, and Range in the Separation of Municipal Expenditures from Social Needs for Fifty-Four SMSAs, 1962

	Separation of Expenditures from Needs*
Mean	.110
Standard Deviation	.347
Range:	
Minima	-.689
Maxima	.637
Number of SMSAs	54

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

Table 3. Zero-Order Correlations Between Regional, Demographic, and Industrial Characteristics and the Separation of Municipal Expenditures from Social Needs for Fifty-Four SMSAs, 1962

Region	Separation of Expenditures from Needs*+
1. Metropolitan presence in Northeast.....	-.226
2. Metropolitan presence in Midwest.....	-.156
3. Metropolitan presence in West.....	.302
4. Metropolitan presence in South.....	.123
Demographic Characteristics	
1. Population size of SMSA.....	-.138
2. Population density of SMSA: number of persons per square mile.....	-.253
3. Percent of SMSA population residing in urbanized area.....	-.297
4. Age of SMSA: year central city reached 25,000 population.....	.341
Industrial Characteristics	
1. Percent of SMSA employment in manufacturing industries.....	-.434
2. Percent of SMSA employment in wholesale and retail trade.....	.332
3. Percent of SMSA employment in finance and services.....	.187

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

†The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 4. Zero-Order Correlations Between Racial Composition and Income Characteristics and the Separation of Municipal Expenditures from Social Needs for Fifty-Four SMSAs, 1962

	Separation of Expenditures from Needs*+
Racial Composition	
1. Percent of SMSA population, nonwhite.....	-.073
2. Percent of central city population, nonwhite	-.162
Income	
1. Median SMSA family income.....	-.359
2. Percent of SMSA families with incomes of $3000 a year or less.....	.443
3. Percent of SMSA families with incomes of $10,000 a year or more.....	-.285
Median Earnings	
1. Professionals and managers.....	-.235
2. Craftsmen and foremen.....	-.212
3. Operatives.....	-.272
4. Laborers.....	-.367
Income Inequality	
1. Gini coefficient: SMSA family income.....	.378
2. Racial income inequality**	.181

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**Median nonwhite family income as a proportion of median white family income in the SMSA.

†The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 5: Zero-Order Correlations Between the Residential Segregation of Social Classes, Racial Groups, and Housing by Quality and the Separation of Municipal Expenditures from Social Needs for SMSAs, 1962

Class Segregation**	Separation of Expenditures from Needs*+
1. Standard deviation: percent of families white-collar among census tracts in SMSA.....	.223
Racial Segregation*	
1. Index of dissimilarity among white and nonwhite families by block in the central city.....	.159
Housing Segregation**	
1. Standard deviation: percent housing sound with all plumbing among census tracts in the SMSA.....	.645
2. Standard deviation: percent housing units with at least five rooms by census tracts in the SMSA.....	.512

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**N = 14.

***N = 47.

+The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 6. Zero-Order Correlations Between Government Fragmentation, Government Inequality, and the Separation of Municipal Expenditures from Social Needs for Fifty-Four SMSAs, 1962

	Separation of Expenditures from Needs*+
Government Fragmentation	
1. Number of municipalities in SMSA.....	-.066
2. Number of governments of all kinds in SMSA.....	-.002
3. Number of municipalities per 10,000 population in SMSA.....	.157
4. Number of governments of all kinds per 10,000 population in SMSA.....	.251
Government Inequality**	
1. Standard deviation: median family income among municipalities in SMSA.....	.273
2. Standard deviation: percent families with incomes of $3000 or less among municipalities in SMSA.....	.242
3. Standard deviation: percent families with incomes of $10,000 or more among municipalities in SMSA.....	.127
4. Standard deviation: median years of schooling among municipalities in SMSA....	.143

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**Standard deviation computed over all municipalities with populations of 2500 or more in the SMSA.

+The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 7. Zero-Order Correlations Between Federal-State-Local Tax and Expenditure Assignment and the Separation of Municipal Expenditures from Social Needs for Fifty-Four SMSAs, 1962

State Context**	Separation of Expenditures from Needs*+
1. Federal aid as a percent of state and local general revenue, 1962.....	.417
2. State taxes as a percent of state and local taxes, 1962.....	.375
3. Property taxes as a percent of total state and local taxes, 1962.....	-.213
4. State direct general expenditure as a percent of state and local direct general expenditure, 1962.....	.433
5. State intergovernmental expenditure as a percent of total local general revenue.....	.206

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**Source: The Advisory Commission on Intergovernmental Relations, Tax Overlapping in the United States, 1964 (Washington, D.C.: Government Printing Office, 1964), Tables 3 and 13.

+The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 8. Multiple Regression of the Separation of Public Expenditures from Social Needs on Salient Independent Variables for Fifty-Four SMSAs, 1962

	Separation of Expenditures from Needs*+		
	Partial Correlation	Beta Weight**	Level of Significance***
1. Metropolitan presence in South.....	-.161	-.192	.280
2. Percent of SMSA population in urbanized area.....	-.243	-.282	.100
3. Age of SMSA: year central city reached 25,000.....	.161	.144	.281
4. Percent of SMSA employment in manufacturing.....	-.269	-.296	.067
5. Median SMSA family income.....	-.124	-.191	.408
6. Gini coefficient: SMSA family income.....	.052	.083	.727
7. Number of municipalities per 10,000 population in SMSA...	-.075	-.082	.614
8. Standard deviation: median family income among municipalities in SMSA.....	.328	.310	.0245

Note: $R = .641$; $R^2 = .411$; level of statistical significance of the multiple correlation coefficient using the F ratio = .001.

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**Standardized regression coefficient.

***Level of statistical significance of the regression coefficient using the t-test, two-tailed.

†The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.

Table 9. Multiple Regression of the Separation of Public Expenditures from Social Needs on Salient Independent Variables for Fifty-Four Metropolitan Areas, 1962

	Separation of Expenditures from Needs*+		
	Partial Correlation	Beta Weight**	Level of Significance***
1. Metropolitan presence in the South.....	-.347	-.423	.019
2. Percent of SMSA population in urbanized area.....	-.186	-.192	.222
3. Age of SMSA: year central city reached 25,000.....	.095	.077	.536
4. Percent of SMSA employment in manufacturing.....	-.227	-.234	.134
5. Median SMSA family income.....	-.075	-.105	.626
6. Gini coefficient: SMSA family income.....	.168	.255	.271
7. Number of municipalities per 10,000 population in SMSA...	-.003	-.003	.988
8. Standard deviation: median family income among municipalities in SMSA.....	.175	.151	.251
9. Federal aid as a percent of state and local revenue.....	.244	.295	.106
10. State direct general expenditure as a percent of state and local direct general expenditure.....	.181	.202	.233

Note: $R = .732$; $R^2 = .536$; level of statistical significance of the multiple correlation coefficient using the F ratio = .0001.

*Zero-order correlation: percent of municipal families with incomes of $3000 a year or less and per capita municipal general expenditures; computed over all municipalities with populations of 2500 or more in the SMSA.

**Standardized regression coefficient

***Level of statistical significance of the regression coefficient using the t-test, two-tailed.

†The sign(s) of the correlation coefficient have been reversed for ease of presentation and discussion of the data.