Chapter Title: Metropolitan Finance Problems: Territories, Functions, and Growth

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Metropolitan Finance Problems:
Territories, Functions, and Growth

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1.

STUDIES of local public finance are typically replete with such alarming terms as crisis, problems, and emergency. The spirit of urgency permeates them. The dismal prophecies, if drastic remedial steps are not taken, are of slum-ridden cities, inadequately educated future generations, traffic clogged and abandoned central business districts, water-thirsty cities, mass flights to less encumbered areas, and patronizing and unpopular intervention of the federal government. Despite the fact that most of the nation's wealth is located in the metropolitan areas, a great part of the difficulties of local governments is attributed to their fiscal condition. Why, when the city[1] is the focus of economic activity, its residents have a more than proportionate share of the national income, its property is far more valuable than the nonurban sectors, it is the market place where most transactions occur, its fiscal base is far greater than other parts of the nation, must its governments operate under crisis conditions? What are the sources of these crises? Are they becoming more critical? These are the questions of this paper.

There is a tendency to view the fiscal problems of metropolitan areas as a function of the very heavy burdens imposed upon the taxpayers because of the expanded public facilities necessary to serve the booming urban population. However, not only has the growth in urban wealth kept pace with the growth in urban population, but the fraction of the nation's income which is locally taxed has fallen. Table 1 shows the trend in local real public expenditures as a percentage of real gross national product over the past 25 years. In recent years there has been a slight increase in local expenditures, but

[1] The following convention on terms will be followed. "City" refers to the urbanized area. "Municipality" refers to a part of the city incorporated under one government. Suburbs, satellites, and central cities are municipalities. The metropolitan area or region is the standard metropolitan area of the census.

TABLE 1

Real Local Revenues and Expenditures
as a Percentage of Real Gross National Product

Year	Revenue from Local Sources	Direct Expenditures
1932	10.42%	12.34%
1938	7.43	9.09
1940	6.41	8.51
1946	4.17	5.11
1948	4.16	5.75
1950	4.38	6.40
1954	4.54	6.50
1956	4.51	6.50
1957	4.69	6.71

SOURCES: Local revenues and expenditures: U.S. Bureau of the Census, Census of Governments Advance Release, *Governmental Finances in the United States 1902 to 1957*, March 1959. Table 6 for current data; p. 2 for price deflators.

Real gross national product: Council of Economic Advisers, *Economic Report to the President*, January 1959, p. 143.

the level is far below that of the prewar years. The fiscal crisis of local governments takes the conventional form—the search for tax sources; but more basic is the question of why public support has fallen behind previous levels. Perhaps part of the reason is a resistance to all taxes because of the large growth in the federal budget. In this paper I intend to explore some of the causes of the crises as they emerge from the structure of the city and its government.

The city is a densely settled area which is economically dependent upon other areas. It is always dependent on other areas for food, since its density precludes agricultural production, and it is frequently dependent for raw materials for production and markets for its products. The city as an aggregate is part of the division of labor in the economy, but more important for our problems is the differentiation of functions which occur within the city. The economic units which comprise the city—the households and firms—are functionally and spatially differentiated. The organization of functionally differentiated economic units into an economy which satisfies the needs of the people has been the central topic of economic analysis. Spatial differentiation has been neglected, but herein lies the core of the metropolitan finance problems.

Differentiation and specialization in economic functions make increasing efficiency possible, but at the same time they give rise to costs of organization. In the economy, the possible chaos which might arise because of functional differentiation is overcome by the

organization of markets. The pull of the market leads to shifts of units so as to result in a tolerably efficient production and distribution pattern. Even where the market is nonexistent, as within the administrative structure of firms, pecuniary evaluations of inputs and outputs which are derived from the market greatly facilitate the efficient organization of the firm.

Spatial differentiation, like functional differentiation, leads to the need for organization, but the role of the market as a spatial organizing force is quite different. Spatial differentiation refers to the fact that every activity must occupy a unique site within the city. Each site is unique since each bears a different distance and thereby time and cost relationship to any other site within the city. How shall the functionally differentiated economic units be distributed among the sites—or to put it in more conventional terms, how shall the sites be distributed among the different users? A market organization is one technique. Economic units bid for the site and in a way similar to that of labor or coal, land will be allocated to the higher bidders. But this form of an organization, though it is important, is minor compared to the other institutions which have developed to enable the city to function.

Governments perform the vital organizing role within the city. Though the activities of governments go far beyond those necessary to provide a structure to organize the spatially differentiated activities, many of the governments' activities arise because of the high social costs of using a market organization. At the minimum we could say that the inefficiency of the market is sufficiently great that even in an economy as ours, where the ideology of the market is so all-pervasive, there have been no serious proposals to replace government by a market organization. On the contrary, the role of the market has been steadily declining.

Space is an input which supports productive activities including the amenities of consumption, but at the same time it is an obstacle which must be overcome in order to communicate or transport. Though the same is true of every other input—e.g., labor is an input but it must be supervised; machines are inputs but they must be maintained—space has the peculiar feature that the use of the land input by one economic unit affects its costs as space to all other economic units. Furthermore, the input value of any site is partially determined by its accessibility, which in turn is affected by the space uses of all other units. The most obvious illustration of this problem

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is that of entry and egress. One site completely surrounded by other sites has little value unless the interior site-user has rights of passage over other sites. A very elaborate body of common law has developed around the rights and duties of adjacent land owners, and there exists market transactions which deal with influencing the uses of sites other than your own, but the dominant agency which is used to organize accessibility (and thereby the usefulness of sites) is the government.

Streets are probably the most significant factor in urban organization. Though one can imagine a private company providing street services where they would at a price link up each site with a common pattern of streets, comparable to the services provided by a telephone company, the cumbersomeness and inefficiency of this market organization would rule it out as a possible solution. Even telephone, water, and sanitation, when privately organized, have to be endowed with special government powers to establish their rights of way over property, in order to connect sites. Public streets are the most impressive instance of government organization of a spatially differentiated area. With low density and extensive land use, a private market might arrange for accessibility. With high density and intensive land use, the government arranges the facilities.

Similar to streets, we have the development of other public services to permit this high density development to survive—fire protection, sanitation, water development, police protection, etc. Though the government has established the basic functions which permit the city to develop, there is an active private market in the allocation of the sites which have been created and arranged by the government. Then, the market allocates the sites according to the profit productivities for firms and their living amenities for households.

The individual units as economic entities adapt themselves to government patterns, but the individual units also function as political entities. The public organization provides a necessary framework for an urban development and the residents as citizens influence the framework. As part of the political process, the individuals establish governments, manage functions, support expenditure, control programs, and assess taxes on themselves. As individuals they play both roles, political and economic, to realize their goals, selfish or altruistic. The fiscal problems of metropolitan areas are political as well as economic since they are concerned with the political and economic behavior of the individuals. Can the government effectively establish a framework for economic and social

activity within the city? Do the economic incentives of the individuals i.e., a comparison of the benefits they receive and the costs they incur, inhibit or facilitate the development of a government organization of the city? Does the structure of government—its limited territorial jurisdiction, functional specialization, restricted fiscal tools—inhibit it as an efficient organization?

2.

Though the city at any given moment of time is composed of sites with unique locational characteristics, the sites are highly substitutible. The patterns of substitution are prominent features of the metropolitan fiscal problem. The degree of substitution among sites has not been analyzed but there are several hypotheses which seem reasonable in the light of the many specific land-use studies. It is rare that an unchangeable topographic feature dictates a specific land use. The most obvious case would be docking facilities along a river or bay. Even these, in most cases, could have been located at many other points along the water front. Once the port facilities are established, the possibilities of substitution among sites are far more restricted. The street pattern has become adjusted to the present location; rail freight facilities have been constructed; the multitude of necessary service industries have located themselves in view of the current port location. A shipping company which seeks a site outside of this complex for a docking facility would find itself denied all of these linkages which are necessary for its operation. In the short run, since complementary facilities are not mobile, high substitutibility among sites is restricted to neighborhoods. The same restrictions to neighborhoods exist for almost all other land uses in the city. Industrial usages are in industrial parks or areas; the department stores and office buildings are downtown. Within any given neighborhood the short-term substitutibility of sites is great and there exist very imperfect substitutions among neighborhoods. In the long run (for city structures the long run is extremely long) almost all sites are good substitutes. Long-run adjustments are hindered by the long life of public and private structures and the adjustments are facilitated by rapid growth. But neighborhoods exist whether they are in short-run or long-run equilibrium. This neighborhood pattern has serious implications for the fiscal problems of metropolitan areas. In fact, most analysts attribute the major source of the fiscal difficulties of the municipal governments contained within the metropolitan area to

the partitioning of the metropolitan area into municipal governments which rule over different neighborhoods of the metropolitan area.

A neighborhood within a city is not a simple homogeneous area, though frequently the structures are similar. The locational advantages of an area for one activity will frequently hold for many similar activities so that branches of industry, transport, retailing, and types of residences will cluster together. Not only do these uses share common locational interests, but also there are strong forces to retain their concentration: they share many economies in efficient contact with suppliers and servicing firms which can reach efficient size if they are located near a large group of similar firms. Similarly, the firms' marketing role is enhanced if prospective purchasers can easily visit several firms. Many small firms, when located nearby, can economize on inventories if they can borrow from each other; they can reduce excess capacity if they can easily subcontract rush or large orders; they can reduce labor costs if the neighborhood attracts a standby supply of temporary workers. The same neighborhood effects extend to residences. The amenities of household residences such as parks, schools, neighbors, reduced traffic, and handy shopping are more efficiently supplied for clusters of residences rather than for a scatter, interspersed among many other uses. For households, neighborhood effects take on the additional attribute that the resident derives utility not only from his house but also from the character of his neighbors' structures and even their behavior—the play patterns of the children, the sociability of the wives, etc. Clusters of similar uses in a city create neighborhoods and within a neighborhood, sites are highly substitutible. And in the long run, neighborhoods themselves could have been located at many points within the city. With the growth of the metropolitan area, shifts in current neighborhood location patterns will arise.

A major determinant of the distribution of the neighborhoods of the city is the accessibility pattern. Those units which assign the greatest value to accessibility, the retailers, competitively bid up the price of sites in the center. The units which find the value of accessibility less crucial cannot outbid the retailers and therefore settle at points more distant than the center. The factor of general accessibility sets the pattern of rates in the center, but retail trade does not account for the majority of the central land uses. There are no authoritative studies of the central business district, but the study of Cincinnati which shows that retailing and business services have about the same

total floor area is typical.[2] The business services includes usages such as: employment agencies, financial and insurance firms, legal and accounting firms, etc. Together, retailing and business services accounted for slightly less than half of the floor space.

Though all sites in the central business district are prepared to pay the high costs of rent in this area this is not because of its great general accessibility. Many business services require special accessibility to those units which require general accessibility. But whatever the motives of entry into the central business district, the many individual sites are highly substitutible for use by retail trade and central offices which enter the CBD and pay high prices for space there because of its general accessibility. The high prices in turn must be paid by those who do not value the general accessibility.

The differences in accessibility needs are in turn related to different demands placed upon the public organization of the city. The retailer requires rapid transit channels for shoppers and truckers and other amenities for shoppers such as close parking and pleasant walks, while the business services may require alleys for messengers, restaurants for conferences, and all-day parking for workers. The stores have large inventories to be protected, large shopping crowds to be moved; the business services have large all-day working forces relative to space. Public services capacity-requirements for these two types of users are quite different. Of course, the central business district at any given moment is far more complex. The point of peak accessibility and peak land values is constantly shifting. In its wake it leaves an area of declining land values and converted buildings. In its path there usually lies an area of better hotels, speciality shops, etc.[3] All that I want to establish here is the different facilities needed by the occupants of the neighborhood.

The conflicts over public policy by residents with different needs and incomes is significant for the fiscal status of the city. Consider the ever-recurring conflict over residential densities and zoning. There is a constant effort to maintain the amenities of uncrowded living by government sponsored rules to limit occupancy rates per acre. The usual standards deal with establishing minimum size lots, number of floors in an apartment house, or minimum open space on a

[2] *The Cincinnati Central Business District Space Use Study, A Summary*, Cincinnati City Planning Commission, 1956, pp. 1–2, 18.

[3] See an analysis of nine central business districts contained in R. E. Murphy, J. E. Vance, Jr., and B. J. Epstein, *Central Business District Studies*, Worcester, Clark University, 1955.

TABLE 2
Hypothetical Relationship Between Housing Expenditures,
Income and Density for a One-Block Area

Income Class	Number of Families	Ratio of Housing Expenditures to Income	Average Family Housing Expenditures	Total Housing Expenditures	Total Income
5,000	100	.20	1,000	$100,000	$500,000
10,000	50	.18	1,800	90,000	500,000
20,000	25	.16	3,200	80,000	500,000
25,000	20	.14	3,500	70,000	500,000
50,000	10	.10	5,000	50,000	500,000

building lot. In any case, the policy advocated for the government is to restrict density. This policy, though often adopted in a planning code is constantly frustrated in practice. The frustration of the policy arises because of the pressure of the market. The efforts to maintain the policy have implications for local finance.

Land which has greater accessibility is more valuable. This is true for residential sites as well as commercial and industrial. Their greater value arises because of the greater demand; individuals in order to avoid the costs of the lack of accessibility are willing to pay heavier for housing. The value of accessibility is significantly related to income. The lower incomes have fewer cars and can afford fewer trips with their cars. They also must be located closer to a variety of job possibilities since their jobs are less certain. When we plot the distribution of personal incomes on a gradient from the city center, ignoring the very wealthy apartment houses located at the center, we find that income rises with distance from the center. The poor are more centrally located. One of the reasons is that they can displace the rich. As income rises, the ratio of housing expenditure to income falls. As illustrated in Table 2, the lower incomes, because they are prepared to pay a higher per cent of their incomes in housing expenditures and live in more dense conditions, can outbid the upper incomes for sites. If the rich originally lived in the area analyzed in Table 2, it is to be expected that they would sell out. This process is familiar—the conversion of the town mansion to flats and finally rooms. The rich sell and move farther out where the accessibility costs are higher and where the lower incomes are discouraged from following. Though higher accessibility costs provide some protection to the rich, it is not sufficient. There is a dispersion of industrial plants throughout the city and an appreciable part of the lower incomes with job security and without the need of other job possibilities,

might be tempted to follow the rich in search of cheaper land. To protect themselves against the inadequate barrier of high accessibility costs, the rich must impose zoning regulations in which they jointly deny themselves the possibilities of capital gains in the sale of their properties to the poor. Is this ordinance which restrains their freedom of action efficient from their perspective?

Some form of public controls are necessary if they are to maintain their properties. Men, when they buy homes, associate the amenities of the neighborhood with the home itself. Dense occupancy in adjoining blocks by lower income groups reduces the enjoyment of their homes. Of course they can sell out, realize a handsome capital gain, and relocate. Therefore, there has to be a personal advantage for them to accept willingly the self-denying zoning ordinance. One explanation may lie in the discontinuities which exist in available sites. Frequently, if one neighborhood is to be abandoned and another established, a lengthy leap to a new site may be necessary. There are no readily available areas which are only slightly less accessible. The move may be one of many miles with subsequent disruption of old neighborhood ties—church memberships, tennis clubs, school associations, etc. As the constant conversion from higher to lower income housing demonstrates, the differences in capital gains and the inability to maintain neighborhood solidarity has forced the rich to more and more distant points. Today, in the largest of the cities where the growth of population and its sprawl has become so great that a large per cent of the population lives outside the limits of the central municipality, the suburban city incomes are greater than those of the central city.

Municipalities or neighborhoods on the periphery of the metropolitan area are far from being solely refuges of the rich from the competitive, high-density bidding of the poor. Industry is fairly widely dispersed in the city and there are neighborhoods of workers in the periphery who constantly threaten the cheaper lands of the rich neighborhoods. The threat of higher density creates conflicting demands on public policy. The accessibility needs of the two neighborhoods as well as their attitudes towards density and industrial location are quite different. The richer tend to commute to the central core of the city while the lower incomes work much closer to home.[4]

[4] See R. F. Whiting, "Home-to-Work Relationship of Workers Living in Public Housing Projects in Chicago," *Land Economics*, August 1952, p. 287; and *Report on the Detroit Metropolitan Area Traffic Study*, Part I, J. D. Carroll, Jr., July 1955, pp. 95–7.

The problem of intra- and inter-neighborhood conflicts can be posed in its simplest form as an imbalanced distribution of taxes and the benefits of public services. Consider the property tax which is the mainstay of the local tax system. An extension of a public service will usually mean an increase in property tax rates. If the public services provide benefits equal in value to the taxes to be paid, the value of the property will remain unaffected. Fixed annual payments by the property owners will be increased by the tax and they will receive a set of services which in the aggregate are equal in value to the tax costs. However, this is too simple a story. The taxes do not support services which generate an equal set of benefits for each resident. Far from it. The benefits of the public services might be freely available to all land users in the area, but not all land users might be equally inclined to use the public services. For those who are disinclined, the services represent a fixed annual cost not compensated by an equal benefit. Benefits from services and the costs in the form of taxes may balance so as to leave the aggregate of property values unaffected, but there may be a redistribution effect which might prevent agreements about public services.

A similar analysis can be applied to the central business district. Transportation and parking and shopping amenities are critical for its expansion and growth. These improvements in accessibility if made will enhance the value of property, not only of the department store and central office buildings, but of adjoining land which contains substitute sites. Therefore, taxes need not lead to declines in values, possibly they may lead to an increase. Annual costs of holding property have gone up and so will rents. Business service units which require only linkages to the other units in the CBD need not directly benefit from the increase in accessibility. If they do not, then they are paying for an undesired service. Clearly, many of the business services are not so benefited.

The mechanics of unequal distribution of benefits and gains from some form of economic change, as described above, are widespread throughout a competitive economy. In the normal operations of a competitive private market economy, the redistribution of incomes does not lead to a frustration of economic change. If the department stores initiated credit departments they would hire more clerks to operate them. Their increased demand for clerks would force an increase in wages of clerks and a resultant increase in clerical costs for all other firms in the same labor market area, the central business

district. This is the working of the competitive process. In the case of an increase in public inputs to enhance accessibility there is one major difference. The unbenefited firm has a right to vote whether any unit should have increased benefits and costs. It is as though the non-department stores, recognizing that the introduction of credit facilities in department stores would lead to an increase in clerical costs, had a vote in determining whether department stores could introduce credit offices. A vote by all land users in an area, or members of an industry, on the pecuniary external diseconomies associated with the growth of one of the land users or members would result in a vetoing of the expansion plans. This procedure is occasionally followed in some industries; it is the general practice in cities. The inhibitions on policy exercised by the veto power of those who suffer pecuniary external diseconomies is true for all governments. Taxes are not assessed in proportion to benefits received, but the frustrations of government reach an acute form in the metropolitan area where governments are smaller; their actions more visible; where specific public services are more directly related to tax payments; and where a multiplicity of governments compounds the difficulties of agreement.

In the above context, the principal fiscal problem of the metropolitan area is the difficulty of public decision-making. The resources of the metropolitan area are great. The needs have not become unsupportable. However, the ability to organize the public framework has become weakened because of an increasingly ineffective governmental structure of which financial problems are only symptomatic.

3.

The conflict between the beneficiaries and the taxpayers illustrated in the above pages is similar to that stressed by several writers on the normative theory of public expenditures who have discussed the difficulty, if not the impossibility, of determining an optimum pattern of public expenditures. These writings were normative—in contrast, the purpose of this paper is positivistic.

The normative analysis is directed toward two questions: When should the government displace private production? What are the conditions for an optimal level of public services? These are not our questions which are concerned with explaining actual expenditures. However, the normative analysis does suggest interesting hypotheses for the study of behavior.

It is argued that one of the cases where the government should intervene is where the product cannot be packaged so as to exclude certain users and therefore if it is produced it must be made equally available to all. In this case, a consumer will not voluntarily purchase the commodity but instead will allow others to purchase and then enjoy the product without payment. Therefore, no one will make the necessary payment since everyone will wait for his neighbor to act. The public is assumed astute enough to recognize this dilemma and therefore individually they are willing to allow the government to force all of them to make "fair" payments in order to produce this commodity. It is further argued that the level of services will not be optimal since the consumers will never reveal their true preferences for the commodity, as judged by the amount of funds they would sacrifice for the public service. The only way that they could reveal their true preferences is if the electoral system would allow them to cast as ballots not only ayes and nays but ballots which list the amounts they would be willing to subscribe for the services. This would result in the same situation which frustrates the private sector in providing the services. Individuals would offer less than their true estimate of the service, hoping that others would subscribe sufficient to provide the service which would be freely available for all. Therefore, the government must rely on a compulsory tax structure in which tax payments are not necessarily related to the values placed by the consumers on the services.

An extension of the logic of the argument of the public expenditure theorists is that if an optimal set of expenditures is not presented to the voters, then there will be some who will oppose the bill. Despite the opposition the bill will be carried if at least half of those voting prefer the situation with the bill to the situation without the measure. The political criterion of accepting a measure is therefore quite different from the criterion adopted by the welfare economists. Any situation A might be politically acceptable compared to a situation B though the welfare economist might not be able to compare these two situations since it might involve redistributions of income. On the surface it would seem simple to find politically acceptable solutions where at least one-half of the population is improved. These agreements are more numerous than the solution of the welfare economist who insists that there is an improvement only if all of the population is at least indifferent or better off. But there are forces which militate against and facilitate the development

of a politically acceptable solution. Recent trends in the metropolitan area are making politically acceptable solutions more difficult.

One factor which sharply reduces the area of possible agreement is the issue of equity. For the welfare economic theorist, every public service is to be welcomed if someone is better off, and no one is worse off with the introduction or expansion of the public service. This allows possible situations where some persons are made very well off while others only slightly or not at all. To accept the welfare economists' criterion, some persons, and for many of the solutions possibly most of the persons, would have to agree to a reduction in their relative income status. Therefore, many persons who might favor a public service would refuse to support it if they felt that it would benefit others "inordinately." This would lead to a severe reduction in the range of politically acceptable solutions. In fact, the introduction of comparative judgment rather than simply judging a situation in terms of one's own income without considering the income of one's neighbors, if done without the introduction of majority rule, might lead to situations where there are no acceptable solutions. It is not inconceivable that the residents of suburbs and all the neighborhoods of the central city might each individually demand of a proposed improvement in public services that each of their relative statuses should improve. If the improved relative status is not forthcoming, each of the groups might prefer the status quo. Therefore, envying-equity considerations would sharply reduce the set of acceptable solutions, since individuals are concerned with both the absolute and relative levels of their incomes. It would be reasonable to argue that the more equitable the distribution of income and wealth, the more easy will it be to agree on efficient solutions since considerations of equity and status will be less significant. This factor is not trivial when we consider the marked divergency in income and social class among the suburbs and central cities of a metropolitan area.

Equity considerations of relative status narrow the range of acceptable solutions. Majority rule expands the range far beyond the optimal set. We will now observe how joint products, uncertainty, and moral sentiments greatly expand the set of acceptable choices.

The normal pattern of public choice is one of choosing a package rather than a single product. It is reasonable to hypothesize that the greater the number of products offered in the package to the voter the greater the likelihood of adoption. Even if the voting scheme

were balloting with subscriptions, the strategy of many projects rather than one is more likely to be carried. It is clearly a better strategy for the government when the balloting is by yes or no and a majority or specific percentage of votes is required for adoption. The success of the multipurpose package is based upon the existence of consumers' surpluses of enough voters for specific projects so that they are willing to endorse the entire package rather than lose the specific project.

The bulk of decisions in regard to public services are not made by referenda, but instead are made through legislative processes. In this case the same sort of phenomena holds. The public exerts their influence on the formation of specific legislative acts either through direct action, as in the case of pressure groups, or, more generally, indirectly, through the election of legislators. In this case the elected official represents a very complex package. It is in the official's interest to create enough surpluses within his voting constituency to assure himself a majority of the vote.

Uncertainty is another significant factor in accounting for the acceptability of public services. There are many dimensions to uncertainty, but the element I want to stress is ignorance. Many governments are very complex, and the more complex the government the easier will it be for it to expand public services. The complexity of government, in addition to providing more variables for the political leader to juggle in order to shape a package acceptable to voters, provides a protective smokescreen for the public administrators through which the citizens cannot penetrate.

Another determinant of the range of acceptable public services even more seriously affects the strategy of political choice. Factors such as uncertainty and multiple products make individual computations and valuations of the elements of a public policy extremely difficult. Generally, voters, rather than acting as hard-headed shoppers, adopt ideological positions toward the whole program. The strategy of the voter may take the form of accepting the leadership of a political party, of a community group, of the primacy of principles, etc. The substitution of ideologies for self-interest as the basis of the support of a program is similar to the adoption by consumers of such strategies as brand preference, trusting a storekeeper, etc. In the case of the private sphere, advertising and habit replace calculation. In the case of the public sphere, political persuasion replaces rational self-interest. The restraint on government

which might develop because of rational self-interest is thereby reduced.

The reliance upon ideology, in effect, substitutes a sense of public responsibility for self-interest. This is too narrow a concept of the morality of individuals acting as citizens. It may be true that individuals are prepared to sacrifice self-interest when faced by moral questions posed by public actions. This is not questioned. All that I wish to establish is that even if individuals were totally self-interested, their lack of knowledge would lead them to evaluate public actions on the basis of ideologies rather than calculations. Whichever motivation for this type of evaluation dominates, the introduction of ideologies greatly increases the freedom of the government in acting. The set of public policies acceptable to the voting public is increased.

The consequence of the forces which expand the set of acceptable programs is to permit the government of the city greater freedom in seeking out compromises. It is easier for the government to assess taxes and it is easier for the government to expand services than if only rational self-interest ruled. Ignorance and the acceptance of majority rule permit the resolution of conflicts by the political processes of persuasion and negotiation, while knowledge of consequences and their implications for one's own self-interest would lead to a frustration of policy by focusing on possibly irreconcilable conflicts.

Though ideological and utopian thinking become important in political decision-making, this does not mean an abandonment of self-interest. It is just that both enter into the public support of a program. The conflict between the social and private evaluations is reflected in the answers to a recent survey of Detroit-area residents on their attitudes toward government activities. They were asked whether the government is doing too much, too little, or the right amount in areas such as unemployment, education, and housing. Only 7 per cent thought that the government was doing too much while 40 per cent thought that the government was not doing enough. When the respondents were asked to compare the worth of government services to the contribution that the public must make for them, the support of the government dropped. Twenty-nine per cent thought that the government asks for more than it provides for the public, while only 13 per cent thought that the public gets more from the government than it pays. The support of the government dropped even further when the question became even more pointed and asked whether they should pay more or less taxes considering what they

get from the government. Forty-one per cent thought that taxes were too high, while only 2 per cent thought taxes were too low.[5] These respondents were prepared to give overwhelming support to an extension of government so long as they were not subjected to the pressures of pecuniary evaluation of costs. Consistent with the above finding, we find the popular demands for the expansion of individual services associated with the sense of frustration about the inability to restrain the total.

The first section of the paper indicated some of the dimensions of conflict which existed among the individuals who use the sites of a city and the difficulties of resolution by a tax-supported government. The second section of the paper discussed some of the attributes of the government decision-making pattern which enables the government to establish an organization for the city despite individual conflicts. In the next sections we will analyze the structure of government of the city and try to assess its ability to resolve the conflicts of site users.

<center>*4.*</center>

The lack of consensus which creates obstacles for governments is partially overcome by the special nature of political decision-making described in the previous section. The political process counteracts the voters' constraint on government which arises because of self-interest. The structure of governments in the metropolitan area rather than helping to overcome the voters' constraints, aggravates the problems posed by conflicting interests. It is reasonable to expect that local governments would have more severe fiscal difficulties than central governments simply because knowledge and thereby self-interest can play a more significant role in local governments. The degree to which self-interest leads to the frustration of political action is increased by the functional and territorial balkanization of the metropolitan area.

Whereas the design of a policy containing many issues permits the development of a stable majority to support it, in local financing there are many single-function governments, e.g., education which precludes the possibility of adding voting strength by promising more voters more benefits. Similarly, territorial restrictions have the same effects.

[5] M. Janowitz, D. Wright, and W. Delaney, *Public Administration and the Public, Perspectives Toward Government in a Metropolitan Community,* University of Michigan Government Studies, No. 36, 1958, p. 36.

TABLE 3

Partitioning of a Five-Man City and Stable Voting Majorities

	INDIVIDUALS	PREFERENCE RANKINGS OF ALTERNATIVES				
		1st	*2nd*	*3rd*	*4th*	*5th*
Part I	A	X_1	X_2	X_3	X_4	X_5
	B	X_2	X_3	X_4	X_5	X_1
	C	X_3	X_4	X_5	X_1	X_2
	D	X_4	X_5	X_1	X_2	X_3
	E	X_5	X_1	X_2	X_3	X_4
Part II	A	X_5	X_2	X_3	X_4	X_1
	B	X_2	X_5	X_4	X_3	X_1
	C	X_3	X_4	X_5	X_1	X_2
	D	X_4	X_2	X_1	X_5	X_3
	E	X_4	X_1	X_2	X_3	X_5
Part III	A	X_5	X_2	X_3	X_4	X_1
	B + D + E	X_4	X_2	X_1	X_5	X_3
	C	X_3	X_4	X_5	X_1	X_2

The Arrow[6] voting paradox is the classic demonstration of the inability of getting a majority to decide on what is best, if the preferences of the voters are inconsistent. Arrow demonstrated that under certain conditions a group might cast a majority of votes for choice A when compared to B, and another majority might favor choice B when compared to C, and that it is possible that a majority of votes from the same group would be cast for C when compared to A. In this case, which is based upon a ranking of preferences for alternatives by individuals which are completely at variance, no single issue could receive a stable majority support. Policy would be frustrated. There are many reasons in actual practice why stable majorities would arise. One of the most important is that there does exist a great deal of agreement among many persons about the rankings of many issues. But unless there is complete agreement about preferences among all individuals in the city, it is usually possible to assign individuals to groups, give each group one vote, and then return to the original condition of not having a stable majority. Table 3 demonstrates this possibility.

The first part of Table 3 lists the preferences of a five-individual city, A, B, C, D, E, where each resident ranks his preferences among X_i in the order given. In this case, there is no possibility of a majority preference. If any X_i is put to a vote there will always be three people

[6] K. J. Arrow, *Social Choice and Individual Values*, Wiley, 1951.

who would prefer some other X_i. This is true for every X_i so that a stable majority is impossible. If three people should by chance vote for some X_i, then someone could propose another X_i for which three persons would also vote. This instability arises because of the diametrically opposed preference orderings of the individuals, which we would not expect to find in nature. The orderings illustrated in Part II of the table are more likely to be found.

In Part II there is a stable majority for X_4. No matter what alternative is posed in opposition to X_4, a majority would vote for X_4. In fact all the choices would be stable, or, to use the more technical language, transitive, i.e., X_4 is preferred to X_2, X_2 is preferred to X_5, X_5 is preferred to X_3, and X_3 is preferred to X_1. Any single alternative if preferred to another is also preferred to all alternatives which are not preferred to that other. It is likely that this may be the more typical situation. Of course, not every one is happy with this final order of preferences of the group. Individual A, who places X_4 low in his order of preferences, will be an active minority opposition. But he has no hopes of upsetting the majority votes. A decision can be taken by our five-man city, and this decision will be stable so long as they agree to accept the results of majority voting. This stability is lost, once the city becomes partitioned into certain combinations of separate governments.

Part III of the table illustrates the return of the voting dilemma after the partitioning of the five-man city into one combination of separate governments. Individuals B, D, and E are now joined in one government with one vote, while A and C represent two independent governments. If votes are now assigned, one to each government, there will be no stable majority among the governments, though the underlying preference orderings of the individual voters would have allowed for a stable majority. In the case of voting by governments, X_4 which is the stable majority of the individuals, would lose in a vote against X_3. This would hold despite the poor showing of X_3 in the voting choices of individuals. When all individuals voted as citizens of one city, X_3 would have been defeated by all alternatives except X_1.

The problem of achieving a stable majority translates itself into an important metropolitan area problem: The metropolitan area is divided into a great many governmental units. A multitude of governments, *per se*, is not a problem. After all there are many thousands of groceries, drug stores, etc., in any given metropolitan area. In the case of governments, the territorial and functional

divisions create difficulties. The organization of a city is a public function which requires consistent planning for the entire area. There is a strong tendency for neighborhoods of a metropolitan area to become municipalities. If all of the municipalities were identical, then the possibilities of an agreement about common organizational problems would not be endangered by territorial partitioning. Instead, municipalities have widely diverging socioeconomic characteristics so that the interests of any given municipality may diverge greatly from the interests of many of the others. The possibilities of a successful exploitation of the rich fiscal resources available in the city are reduced by the difficulties of agreement among the municipalities.

In the 178 standard metropolitan areas, there are 15,658 governments. This is an average of 90 governments per standard metropolitan area, 18.3 governments per 100,000 persons. Though this seems to be a large number, it is small compared to the area outside the SMA. In the rural areas, there are 133 governments per 100,000 persons. Within the SMA's there are large stretches of rural territory, since the boundaries of the SMA are the county lines, no matter how far the county limits are from the urban area. The central counties of the SMA would approximate most closely an urban area. The central counties average 56 governments or 14 governments per 100,000 persons. As the SMA grows in population, the governments do not increase proportionally. The five most populous urban areas are on the average 71 times larger than the average area of 50–100,000 inhabitants, but they only average 16 times as many governments. Governments per capita in the largest areas are slightly less than 1/5 of the figure for the smallest SMA's. Some type of economies of scale are present though it is not obvious whether they are based upon politics, the technology of supply of public services, or the economic advantages of a larger service area for a unit.

Though the very large number of governments are accounted for by the many school and special districts which abound in local governments, municipal governments themselves are still numerous. There are 3,422 municipalities in the 178 standard metropolitan areas. School districts were almost twice as numerous as the municipalities and special districts appeared almost as frequently.[7] Though the number of municipal governments is quite large, the bulk

[7] The statistics on the frequency of governments in the standard metropolitan areas are taken from U.S. Bureau of the Census, U.S. Census of Governments: 1957, Vol. I, No. 2, *Local Government in Standard Metropolitan Areas*, 1957.

TABLE 4

Number of Municipalities and Their Population
in the Standard Metropolitan Areas in 1957

Population Size of Municipalities	Number of Municipalities	Percentage of Population of Municipally Governed Area of Standard Metropolitan Areas
50,000 or more	234	79
25,000–49,999	104	6
10,000–24,999	289	7
5,000– 9,999	386	4
2,500– 4,999	419	2
1,000– 2,499	753	2
Under 1,000	1,237	1

SOURCE: U.S. Bureau of Census, *Local Government in Standard Metropolitan Areas,* *1957*, p. 6.

of them govern small areas and account for a small percentage of the urban population as can be seen in Table 4.

Though the bulk of the metropolitan population resides in the few large municipalities, the metropolitan area problem is not simply a big-city problem. First, the population of noncentral cities is growing relative to the central cities. Second, for many areas the central cities have a minor part of the population of the standard metropolitan areas.

As can be expected, the municipalities are highly diverse, with far greater differences existing among the satellites than among the central cities. Table 5 gives one dimension of the great diversity which exists—suburban cities tend either to be highly residential, or, interestingly enough, almost as frequently highly industrial. All cities of over 10,000 population in the SMA's of over 500,000 were classified by central or noncentral, and by the ratio of jobs in manufacturing and trade to the number of residents employed in those industries. The lower the ratio the more likely that the residents of the city in those industries have to go elsewhere to work. For the bulk of cities it is likely that this ratio can be used to classify the municipality as an employment or residential center. A high ratio would indicate an industrial city and a low ratio would mean a dormitory city.

The differences in the municipality economic characteristic most relevant to fiscal problems—the employment-residence ratio—is striking. Though most of the population of central cities are located in municipalities which are moderately a greater source of employment in manufacturing and trade than their supply of residents for those industries, there are appreciably large numbers of central cities

which export labor for those industries and others which import large numbers. The central cities show a marked bunching around a moderate job surplus status. The suburbs show an altogether different pattern. Rather than a balanced employment-residence structure being dominant, more than half of the population of suburbs reside in suburbs which can be characterized as highly specialized as dormitories or employment centers. The importance of suburbs as industrial satellites has been overlooked in the general tendency to view suburbs as the homing place of the central city workers. One out of five suburban residents of cities over 10,000 live in cities where local manufacturing and retail jobs are almost 50 per cent greater (and usually a higher percentage) than the number of residents who work in these industries.

The extreme diversity of suburbs has two aspects of interest. It is apparent that no simple generalizations can be made about the differences between central cities and suburbs. It is true that if a person lives in a residential city he most likely lives in a suburb, but it is also true that if he lives in a highly industrialized municipality he also most likely lives in a suburb. The too-easy generalization about the suburbs as dormitories and central cities as production centers is incorrect. The suburbs can be considered a collection of the many types of neighborhoods which exist in the urban area, with each neighborhood usually having its own government, although many suburban municipalities have more than one neighborhood. The one neighborhood which will not be found as a suburban municipality is the central office district, the major shopping centers, the entertainment and restaurant district. The suburban municipalities are not only distinguished by job-resident ratios, but also by income levels, rental levels, birth rates, educational levels, proximity to central city limits, occupational characteristics, and so forth.

The existence of neighborhoods as cities has the consequence of gathering into one government unit the individuals who have relatively similar preference orderings and who, as a group, tend to have orderings which are distinct from other groups. This has the effect of reducing the possibilities of agreement on public programs in a metropolitan area. Within any neighborhood there may be sufficient similarity for a stable majority to develop (and it is possible that a stable majority could be developed for the entire urban area), but partitioning the metropolitan area into cohesive sectors where each municipality has one vote reduces the possibilities of agreements.

TABLE 5

Percentage of Population in Cities with Different Employment-Resident Ratios,
by Size of Standard Metropolitan Area and Type of City, 1954

RATIO OF JOBS AVAILABLE TO RESIDENTS EMPLOYED IN MANUFACTURING AND TRADE	SUBURBAN CITIES OVER 10,000 IN STANDARD METROPOLITAN AREAS OF				CENTRAL CITIES IN STANDARD METROPOLITAN AREAS OF				PERCENTAGE OF POPULATION OF RATIO GROUP IN	
	100,000 to 500,000	*500,000 to 1,000,000*	*1,000,000 and Over*	*All Suburbs*	*100,000 to 500,000*	*500,000 to 1,000,000*	*1,000,000 and Over*	*All Central Cities*	*Suburbs*	*Central Cities*
145 and over	18.8	3.7	23.7	20.5	11.5	8.4	0	4.9	55.4	44.6
130–144	18.4	5.4	3.1	5.5	15.5	20.5	8.4	12.8	11.3	88.7
115–129	13.9	2.8	8.6	8.6	27.2	34.0	19.4	24.5	9.4	90.6
100–114	8.5	8.3	14.6	12.9	24.5	29.6	63.2	45.8	7.7	92.3
85–99	12.4	25.7	10.0	12.3	16.0	7.4	8.4	10.3	26.0	74.0
70–84	4.9	18.9	8.0	8.9	4.3	0	.6	1.5	63.7	36.3
50–69	17.8	15.4	12.4	13.5	.9	0	0	.3	93.9	6.1
Under 50	5.3	20.0	19.7	17.7	0	0	0	0	100.0	0

SOURCE: Work sheets of Victor Jones and Andrew Collver, "Economic Classification of Cities and Metropolitan Areas," to appear in the forthcoming annual *Municipal Yearbook, 1959,* International City Managers' Association.

TABLE 6

Rate of Increase in Population,
by Metropolitan Status, 1940–50

| METROPOLITAN STATUS | INTERDECADE RATES OF POPULATION INCREASE | | | | |
	1940–50	*1930–40*	*1920–30*	*1910–20*	*1900–10*
Total United States	14.5	7.2	16.1	14.9	21.0
Nonmetropolitan	6.1	8.5	6.0	6.7	13.6
Metropolitan	22.0	8.4	27.5	25.9	32.5
Central Cities	13.8	5.5	24.2	27.9	37.1
Rings	34.2	13.4	33.2	22.4	25.6
Urban	26.0	8.0	42.6	35.9	49.2
Rural	45.2	21.3	22.0	9.4	8.4
Incorporated	34.1	13.2	28.6	24.1	45.0
Unincorporated	46.5	22.3	21.2	7.8	5.6

SOURCE: Leo F. Schnore, "Metropolitan Growth and Decentralization," *American Journal of Sociology*, September 1957, p. 172.

This reduction weakens the opportunities for the residents of the metropolitan area to use their superior fiscal capacity to carry out the necessary organization of the metropolitan area.

Is this differentiation increasing? Are the prospects for agreements worsening? The evidence is not clear. The most noticeable signs point to increasing differentiation. Suburbs are growing relative to central cities, central cities are becoming more dissimilar from the suburbs, and suburbs are increasing their distinctiveness.

Table 6 shows the changing trends in location of population growth in the metropolitan area. Metropolitan areas have consistently grown relative to the rest of the United States. Within the urban area, the suburbs, highly differentiated, have over time absorbed an increasingly larger percentage of the urban growth. In the years since the last census, this higher rate of growth by the suburbs has been maintained if not accelerated. Table 7 shows the distributions of building permits for 1954 to 1957 between central cities and the rest of the metropolitan area by type of construction. The shift of the population to the suburbs is indicated by the 70.6 per cent of the value of new dwelling units which are being located outside of central cities. The dominance of the noncentral areas in other types of construction is not as great, but they all indicate the relative growth of the noncentral. Industrial buildings permits are divided almost the same as residential. Only in construction for the clearly central-city functions, i.e., office building, institutional buildings, and commercial garages, are the central cities growing more rapidly than the noncentral. Although industrial

TABLE 7

Value of Building Permits Issued in Metropolitan Areas, 1954–57

| | DISTRIBUTION OF TYPE OF CONSTRUCTION BY PLACE, PER CENT | | IMPORTANCE OF TYPE OF CONSTRUCTION IN AREA, PER CENT | | |
TYPE OF CONSTRUCTION	Central Cities	Metropolitan Areas Outside Central Cities	Standard Metropolitan Areas	Central Cities	Metropolitan Areas Outside Central Cities
All building construction	38.7	61.3	100.0	100.0	100.0
New dwelling units	29.4	70.6	57.2	43.4	65.9
New nonresidential bldg.	48.7	51.3	32.6	41.0	27.3
Commerce building	56.9	43.1	10.9	16.1	7.7
Amusement	52.6	47.3	.6	.8	.5
Commercial garages	75.9	24.1	.4	.7	.1
Gas & serv. stations	43.6	56.4	.7	.7	.6
Office buildings	72.8	27.2	4.5	8.5	2.0
Stores	43.0	57.0	5.2	5.7	4.8
Community building	49.8	50.2	11.0	14.1	9.0
Education building	45.2	54.8	6.8	7.9	6.1
Institution building	67.4	32.6	2.1	3.6	1.1
Religious building	48.2	51.8	2.1	2.6	1.8
Garages	33.6	66.4	1.5	.9	1.8
Industrial	32.5	67.5	5.5	4.6	6.0
Public utility	54.0	46.0	1.6	2.2	1.2
All other non-residential	43.8	56.2	2.2	2.4	2.0
Additions, alterations, and repairs	59.1	40.9	9.5	14.7	6.2

SOURCE: Various May issues of *The Construction Review*, U.S. Department of Commerce and Labor.

buildings are divided almost in the same proportion as residential building and stores and other mercantile buildings are more than half in noncentral areas, this does not mean that the suburban growth is necessarily balanced. As indicated earlier, suburbs are highly differentiated, and it is pertinent to ask whether the growth of suburbs, which is balanced in the aggregate, results in an increase or decrease in the degree of differentiation.

Table 8 details the increase in population between 1948 and 1954 in different types of suburban cities over 10,000 in SMA's over 500,000. The table indicates that the suburban cities are retaining their pattern of differentiation and possibly accentuating it. Were there an equalizing movement, the balanced cities should have grown relatively more rapidly than other types of cities. Instead, the balanced cities, as defined by either 1948 or 1954 indices, grew the slowest. By far the lowest growth was experienced by balanced cities which remained balanced. The cities which retained their same

TABLE 8

Percentage Increase in Population of Suburban Cities from 1948 to 1954[a]

1948 RATIO CLASSIFICATION	1954 RATIO CLASSIFICATION			
	Employing Cities Ratio over 115	*Balanced Cities* 85–115	*Dormitory Cities* Below 85	*Total*
Employing cities	16.2	31.7	26.7	19.7
Balanced cities	18.5	1.1	28.9	9.4
Dormitory cities	76.8	15.6	23.7	24.1
Total	18.7	9.0	24.4	18.7

SOURCE: Work sheets of Jones and Collver, *op.cit.*

[a] By 1954 and 1948 ratios of jobs in trade and manufacturing in city to residents employed in same industries. Suburban cities over 10,000 in standard metropolitan areas of over 500,000.

TABLE 9

Distribution of Population of Suburban Cities in 1948 and 1954[a]

A. PERCENTAGE OF 1954 SUBURBAN POPULATION				
1948 Ratio Classification	1954 Ratio Classification			
	Employing	*Balanced*	*Dormitory*	*Total*
Employing	20.5	5.9	1.5	27.9
Balanced	4.4	15.5	6.1	26.1
Dormitory	1.4	3.5	41.1	46.0
Total	26.3	24.9	48.8	100.0
B. PERCENTAGE OF 1948 SUBURBAN POPULATION				
1948 Ratio Classification	1954 Ratio Classification			
	Employing	*Balanced*	*Dormitory*	*Total*
Employing	20.9	5.3	1.4	27.6
Balanced	4.4	18.2	5.7	28.3
Dormitory	.9	3.6	39.4	44.0
Total	26.3	27.1	46.5	100.0

SOURCE: Work sheets of Jones and Collver, *op.cit.*

[a] By 1954 and 1948 ratios of jobs in trade and manufacturing in city to residents employed in same industries. Suburban cities over 10,000 in standard metropolitan areas of over 500,000.

classification in both years grew the least. This is to be expected, since a large increase in population will have a temporary unbalancing effect, so that the economic character of the municipality will change. The population of cities with constant classification grew by 16.5 per cent, while the population of those cities which changed classification grew by 27.1 per cent. The greatest rates of population growth were registered in the dormitory cities whether classified by 1948 or 1954 indices. The continued pattern of differentiation is reinforced by Table 9 which shows the distribution of the 1954 and 1948 suburban population by type of city.

TABLE 10

Distribution of Area and Area Growth
by Size of Cities for Cities of over 100,000 Population in 1930

Size of City by Population (thousands)	Percentage of Total Area Growth during the Period 1900–1950 Attributed to Population Size-Class of City at Time of Growth	Percentage of 1950 Total Area by Population Size of City in 1950
49 and under	8.5	
50–74	8.1	
75–99	10.3	
100–249	26.1	24.3
250–499	33.6	28.3
500–749	7.5	13.3
750–999	3.9	7.8
1,000 and over	1.9	26.3
Total	100.0	100.0

SOURCE: U.S. Census, *Land Area and Population of Incorporated Places of 2,500 or More*, April 1950; *City Finances, 1942*, Vol. 3, pp. 200–9; R. D. McKenzie, *The Metropolitan Community*, McGraw-Hill, 1933, pp. 336–9.

The growth of the noncentral part of the metropolitan area relative to the central has been the repeated theme of hundreds of reports and conferences on metropolitan fiscal problems. Frequently this shift in population distribution is identified with mass movements of people who, once they have automobiles, feel free to abandon their crowded urban quarters to live expansively in the wide-open areas of a green suburbia. This decentralization is not an accurate depiction of the facts. There has not been an evacuation of the central areas for the periphery. The typical evidence dealing with decentralization is similar to Table 6 which shows the increasing rates of growth of the suburbs with declining rates of growth of the central city. There is nothing in this sort of evidence which is inconsistent with the hypothesis that population is normally distributed over an area and that each successive stage in a growth trend is also normally distributed.

Part of the phenomenon of decentralization is based upon the change in the pattern of area growth of cities. Table 10 summarizes some of the data on the area growth of the cities which had a population of 100,000 or over in 1930. From 1900 to 1950, the population of these 91 cities increased by 153 per cent and their areas increased by 83 per cent. As we can expect, the densities of these larger cities have grown. Over time, the population growth has tended to have the same general shape as the area growth with a somewhat greater concentration of area growth in the early decades of the century.

Undoubtedly, this unequal development of area and population has contributed to the identification of the year 1920 as the turning point in the growth of decentralization, though as we have seen the concept of decentralization is poorly defined.

Table 10 shows the area growth between 1900 and 1950 of the cities which had a population of over 100,000 in 1930. The first column analyzes the area growth of these cities according to their population size when they acquired additional acreage. The figures entered in the column are the percentages of the total area growth of the 91 cities distributed among the cities according to their population size when the annexations took place. The first item, 8.5, means that 8.5 per cent of the total area growth between 1900 and 1950 of all 91 cities was incurred when these cities had a population of under 50,000. The column understates the area growth of cities under 50,000 during this period since the percentages only refer to the growth of cities which reached 100,000 in 1930. Some cities under 50,000 in this period grew and reached 100,000 after 1930 but they would not be included in the table. The important point about the table is that though in each decade the areas of the large cities have been growing, lagging behind population but growing, there is little area growth of cities beyond the 500,000 population size. The 17 cities which had populations of over 500,000 in 1950 were only 19 per cent of the 91 cities analyzed, but they contained 47 per cent of both the area and population of this group of cities. It is this very important group of cities for which we can expect very little in the way of area growth. They are hemmed in by already incorporated areas which will zealously retain their identity. In the future, we can expect in these major urban areas a very rapid increase in noncentral populations relative to the increase in population in the central cities. Given the pattern of distribution of population increase among the suburban cities of the large metropolitan areas which was analyzed in the preceding tables, the difficulties of agreements about the mobilization of fiscal resources will most likely increase in the future.

The municipalities of the metropolitan area are becoming more diverse. Industry and residences and shopping centers are not distributed randomly among the municipalities. Cries of inequity, conflicting competition for fiscal resources, appeals to higher government, creations of new governments become common. The next sections will discuss some of the problems in more detail and the fiscal reactions of local governments.

5.

Discussion of the problems created by the increasing partitioning of the metropolitan area into ever-larger and more numerous municipality-neighborhoods is too frequently restricted to one issue—equity. Equity is important. Municipalities are less prone to cooperate in a sensible organization of the metropolitan problem if they feel that other municipalities are liable to reap most of the benefits, even if they should benefit somewhat. Solutions to metropolitan problems must consider equity, but they must also consider how best to find agreements when there are real conflicts of interest. Furthermore, even if conflicts were nonexistent, the structure of suburban governments handicaps the possibility of political action to expand public services.

The major arguments about equity are concerned with the central city *vs.* suburbs. The central cities argue that the suburbanite crowds their streets, demands police and fire protection while he shops and works, and then retreats outside the municipal boundaries into his valuable residential property, which the central cities believe should be taxed to pay for these public services. The suburban governments argue that they must educate the boom baby crop of the commuter; they must protect his family and his property, but the lucrative tax base which should support these services—the factories and office buildings—are located in the central city. Both sectors of the metropolitan area deplore their partial access to the taxable property of the metropolitan area, and both feel a sense of deprivation which they hope can be rectified by changes where each can achieve an improvement in their relative standings.

The only substantial evidence to support the claim of suburban exploitation of the central city has been the study of Amos Hawley.[8] He showed that the per capita public expenditures of central cities increase as the percentage of the population of the standard metropolitan area which lives in the central city declines. The central cities which comprise the smallest part of their metropolitan areas have the highest per capita public expenditures. This finding, which was based upon municipal expenditures and which could be challenged since it ignores the many differences in the use of special district governments among cities, is confirmed when we use the data on government payrolls of all local governments overlying central cities. Table 11 presents the data for the 36 largest standard metropolitan

[8] A. H. Hawley, "Metropolitan Population and Municipal Government Expenditures in Central Cities," *Journal of Social Issues*, VIII, 1951.

TABLE 11

Indexes of Local Government Costs and Fiscal Capacity
in the 36 Largest Standard Metropolitan Areas

CENTRAL CITIES POPULATION AS PERCENTAGE OF TOTAL URBANIZED AREA, 1950	PER CAPITA APRIL 1957 PAYROLLS		RATIO OF CENTRAL CITY PUBLIC PAYROLLS PER CAPITA TO TOTAL SMA GOVERNMENTS, APRIL, 1957	RATIO OF CENTRAL CITY PER CAPITA RETAIL SALES TO TOTAL SMA, 1954	RATIO OF CENTRAL CITY PER CAPITA EMPLOYMENT IN MANUFACTURING AND TRADE TO TOTAL SMA, 1954
	of Central City Municipal and Overlying Local Governments[a]	Total Standard Metropolitan Area			
35.9–65.4	$11.89	$9.05	1.31	1.35	1.31
66.1–73.6	11.11	8.67	1.28	1.08	1.13
74.9–81.7	10.19	9.04	1.12	1.56	1.56
83.3–97.5	7.76	7.31	1.06	1.07	1.03
Total	10.69	8.68	1.23	1.19	1.21

[a] County payrolls were allocated to the area overlying central city on basis of percentage of county population contained in central city. This most likely leads to some overstatement of central city payrolls. All of the special and school district payrolls were assigned to the central city even if these governments served a larger area.

SOURCES: Population: Work sheets of Jones and Collver, *op.cit.* Payrolls: U.S. Bureau of Census, *Census of Governments 1957*, Vol. II, No. 3, *Local Government Employment in Standard Metropolitan Areas*. Employment and Retail Sales: U.S. Bureau of Census, *County and City Data Book*, 1954. Ratio of Central to Urban Population: D. Bogue, *Population Growth in Standard Metropolitan Areas, 1900–1950*, USHHFA, 1953, pp. 73–4.

areas. The first column gives the per capita payrolls by groups of central cities with different ratios of central city to total urban area populations. The differences among the groups are not striking but it is clear that the greater the outside population relative to the residents of the central city, the greater will be the central cities' local public expenditures. The per capita public payrolls of the standard metropolitan areas do not bear the same relationship as do those of their central cities, which lends credence to the inference that the central city public expenditures relationship is a function of its outside population, and not some special characteristics of the area or region. This "inequity" is of special interest since the future booming growth of urban areas will result in central cities having still smaller shares of the metropolitan population and therefore incurring still larger public expenditures relative to the suburbs.

The last three columns of Table 11 evaluate the significance of the payroll differentials. The first shows the ratios of central city public payrolls to those of the entire SMA. The expected relationship holds—the ratio of per capita central city public payrolls to those of the total SMA increases as the percentage of the total urban population which resides in the central city falls. Differences in expenditures show that public costs per resident are greater as the population outside the central city grows, and therefore they indicate that the central city services a population much larger than its residents. Clearly, as the central city becomes a smaller part of the metropolitan area it is likely that it will contain a relatively larger share of the employment of the SMA and with this increased daytime population its local public costs would rise. This expectation is confirmed by the data of Table 12 which shows that the employment-resident ratio of the central city rises as its share of the population of the urbanized area falls. However, the large daytime population of the central city and the consequent higher public expenditures does not necessarily mean a higher tax burden on the residents. Associated with an increase in daytime economic activities of the central cities there may be larger fiscal capacities to support additional public services. The remaining two columns of Table 11 are partial indices of the fiscal capacities of the central cities of the 36 standard metropolitan areas. In only one of the four groups do the fiscal capacities fall appreciably below the expenditures indices. The evidence is too partial to allow for any clear conclusions about who exploits whom. But the fact that central cities contain a larger per capita tax base casts doubt on the validity

TABLE 12

Distribution of Urbanized Areas
by Degrees of Central Cities Jobs-Residents and Inside-Outside Population Ratios

RATIO OF JOBS IN MFG. AND TRADE TO RESIDENTS EMPLOYED IN MFG. AND TRADE 1954	RATIOS OF POPULATION TOTAL URBANIZED TO POPULATION OF CENTRAL CITIES, 1950					
	Below .60	*.60–.69*	*.70–.79*	*.80–.89*	*.90–1.00*	*Total No.*
130 and above	12	13	9	8	2	44
115–129	5	4	9	14	7	39
100–114	4	1	7	16	8	36
Below 100	0	3	3	6	12	24
Total No.	21	21	28	44	29	143

SOURCES: Work sheets of Jones and Collver, *op.cit.*; D. Bogue, *op.cit.*

of any inference drawn from their higher expenditure ratios. Retail sales and employment are important indices of fiscal capacity but they are far from complete. Family incomes are higher outside the central city than inside, for the larger metropolitan areas. It is likely that value of residence per family is also higher. But the higher valued residences are often offset by the greater per capita industrial and commercial property.

The argument that central cities are exploited by the noncentral cities is not well established. If anything, central cities may be relatively better off. Other alleged inequities within the metropolitan area may have a better basis in fact, and these may prove the obstacle to efficient fiscal arrangements.

A typical set of suburbs may include an industrial satellite with a low-income, densely settled residential district with an old shopping district; an upper-income suburb where zoning might exclude all commerce and industry and set a minimum-sized building lot of one or more acres; a middle-income city with shopping districts, minimum-sized lots of modest dimensions, and constantly on the lookout for clean industry; a lower-income city with aggressive plans to attract industry. The upper incomes commute to the central city. The lower incomes work in the industrial satellites or in plants on the periphery of the central city closest to the suburb. The middle-income group is mixed, containing central business district commuters and managers of peripherally located businesses. The demands for public services by these suburbs, and their fiscal capacities, are quite different. Fiscal inequities exist, but more important are the supposed

TABLE 13

Some Fiscal Indices of Cities in the San Francisco Bay Area

Type of City	Average Household Income	Real Property Value per Capita	Average Annual per Capita Municipal Expenditures	Average Annual Municipal Expenditure per Dollar of Household Income
	1950	1954–55	1952–55	
Central	$3,709	$4,802	$69.00	$.0188
Business suburbs	3,890	4,688	53.60	.0138
Higher income	4,495	5,156	53.35	.0119
Lower income	3,647	4,502	53.70	.0147
Dormitory suburbs	4,864	5,598	43.66	.0090
Higher income	5,809	6,692	49.19	.0085
Lower income	3,930	4,517	38.19	.0097

SOURCE: See J. Margolis, "Municipal Fiscal Structure in a Metropolitan Region," *Journal of Political Economy*, June 1957, pp. 231–2 for methodology. Some of the numbers in the above table do not agree with the numbers in the article. Not all of the cities in the Bay Area could be used for the above table since income could not be estimated for some.

or real inequities of any proposed changes in the development of the metropolitan area which attempts to treat all persons and municipalities in a uniform manner. For instance, a mass transportation plan with an orientation toward the central business district may provide great benefits to those suburbs containing the commuters— the upper- and middle-income suburbs—but they provide few benefits to the low-income suburbanite who does not work in the central business district. Frequently, the operations of these proposed programs require a subsidy by a property tax which might involve agreements by many municipalities. The unbenefited, but taxed, are not likely to agree.

In addition to conflicts among the governments, there is the further complicating factor that many of the municipalities might be too small and simple in structure to allow for the political flexibility necessary to extend public services. Table 13 shows some fiscal data for the cities of one metropolitan area, the San Francisco Bay Area, which casts some light on problems of equity and fiscal adaptability in the suburban areas. The business suburbs are those which have a substantial residential population and have local employment at least close to that of their resident labor force. They do not include the heavily industrialized satellites which are factory towns with very little residential development. The dormitories have few local

jobs relative to the resident labor force. The differences in fiscal behavior among the suburbs is very marked. The dormitories have higher household incomes and higher per capita real property than the business dormitories, but their municipal expenditures per capita are appreciably less. Income differences in the case of dormitories lead to substantial differences in the levels of their municipal expenditures. The lower-income dormitories make a greater effort in terms of their incomes, but they still fall far behind the level of the higher-income dormitories. Both groups make a distinctly lower effort than the central cities or business suburbs. The latter group spends the same amount per capita independent of the level of income or value of property in their city. The low-income business suburbs make a much greater effort than the higher-income business suburbs to achieve the same magnitude of expenditures. The full explanation of the magnitudes of expenditures is beyond the scope of this paper, but the inability or the unwillingness of the dormitory suburbs to make the same efforts as the business suburbs is, I feel, explainable. My argument in the earlier sections of this paper stressed that the more complex the government the easier it is for the political leadership to expand its level of services. This is applicable here. The lower-income business suburbs achieve the same standards of services as the higher-income business suburbs though it means a much greater effort for them. The lower-income dormitory suburbs do not achieve the same expenditure levels as the upper-income suburb though they make a slightly greater effort. They do not approximate the efforts of the lower-income business suburbs though their per capita incomes are greater and their per capita real property values are the same. The inference seems clear that the more complex governments find it easier to muster the public support necessary to extend the level of public services despite the greater sacrifice required. The continuing dominance of the dormitory suburb among the noncentral municipalities prophesies a perennial shortage of funds for the new and rapidly expanding municipalities of suburbia.

6.

The creation of many municipal neighborhoods is only one dimension in the balkanization of the metropolitan area. Another has been the development of special-purpose governments. Historically, municipal governments expanded the scope of their functions to displace bodies which administered single functions. Today, there

is a possibility that we may be returning to the earlier pattern. One solution offered to overcome the frustration of policy because of the too many small municipalities is to develop special governments which would have authority over an area large enough to handle the problems posed by the great interdependencies which exist within a metropolitan area. This has been especially true for such functions as water, sanitation, bridges, port development, and recreation. It is true that the larger jurisdictional area of these governments will enable them to better serve a planning role, but their specialized character which insulates them from some of the normal political processes of the metropolitan area may prove a handicap.

In previous sections, I stressed that governments with many functions may find it easier to raise funds by taxation. The voters' constraints could be eased by the development of a program with many services which could provide surpluses for a majority of the voters, and the uncertainty surrounding a complex program might enervate the opposition. If this is so, the single-purpose special districts may not find themselves with sufficient fiscal strength to fulfill their goals. One test of the reasonableness of this suspicion is the status of the largest group of single-purpose governments in the country—the school districts.

The school district, as a government, performs one function, education. Its territorial jurisdiction is usually small. These attributes permit the voters to have some knowledge of the scope and nature of its activities. It is not too difficult to become familiar with its activities, and it is easy for many individuals to relate what they believe is their self-interest to the functioning of the school. Support of schools is not restricted to those who have children in the schools. On the contrary, there is some evidence that the level of education of the voters is a better determinant of how they vote on school fiscal issues than the number of children of school age. Whatever the basis of individual support of an educational budget, the voters can readily develop a negative or positive attitude toward the extension of the school budget. Under these conditions, it is not surprising that schools are the major fiscal problems of local governments despite the nation's best organized public pressure groups—the parents and teachers associations.

Education services are supplied both by independent governments such as school districts, and multipurpose governments, such as counties, municipalities, and townships. There are 52,913 public

school systems in the United States. The bulk of them, 50,887 are independent school districts while the others are fiscally dependent upon other governments. The nonindependent school departments are few in number, but they are significant in size—they have 22 per cent of the school enrollment. Over time, the independent school districts have been declining in number, because of increasing consolidation of districts.

Two aspects of school finance are of special interest to this paper. The school districts represent the pure form of a single function government, with local control and relatively widely known operations. Their difficulties are an accentuation of the difficulties confronting other local governments. The first question that I want to raise is whether fiscally independent school districts fare better than fiscally dependent school departments in raising funds. The second question deals with the solution by the school districts of the problem of their inability to overcome the constraints imposed by a lack of consensus on the part of the voters.

A comparison between fiscally independent school districts and fiscally dependent school departments is of interest since it indicates whether the public will spend more for a public service when it is presented as a single unit or as part of a package for which the specific benefit of the marginal tax dollar is uncertain. The evidence is far from weighty but it indicates that fiscally dependent departments spend more per pupil than fiscally independent school districts. "Woodward made an analysis of expenditures in 85 cities between 100,000 and 1,000,000 population over the period 1929–30 to 1943–44. During this period the mean per pupil expenditure was highest in the fiscally dependent cities. They spent about 4 per cent more than the independent districts in 1929–30 and nearly 12 per cent more in 1943–44."[9]

Ten of the 41 largest cities have municipal school departments. They spent in 1952–53, $346.11 per pupil in average daily attendance against $293.40 spent in the other 31 largest cities with independent school districts.[10]

Most states have independent school districts throughout the state. Where municipal departments are permitted, they are frequently

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[9] Henry B. Woodward, *The Effects of Fiscal Control on Current School Expenditures*, Ph.D. thesis, Columbia, 1948. Cited in Paul R. Mort and Walter C. Reusser, *Public School Finance*, McGraw-Hill, 1941, p. 60.

[10] U.S. Office of Education, Biennial Survey of Education, 1953–54, *Statistics of City School Systems*, pp. 36–45.

associated with larger cities. New Jersey is a case where there are independent and dependent systems at all size classes. The six cities of over 100,000 had municipal school departments. They spent $383 per ADA. In the remaining cities, the municipal school departments spent $343 per ADA, while the independent school districts spent $293 per ADA.[11]

The evidence is not conclusive, but it does indicate that when a government function is broken out of the complex matrix of the multifunctioned government and becomes institutionalized in a separate government it finds greater difficulties in maintaining levels of services because of the fiscal constraints imposed by the necessity of developing a consensus among knowledgeable voters.[12]

Further evidence supporting the hypothesis that simple government structures are subject to more severe constraints is given by the decline in the fiscal independence of the school districts. In 1920, 14 per cent of the public elementary and secondary school revenues were derived from state taxes and appropriations. This increased to 39 per cent in 1950, and for the last year for which we have complete information, 1953–54, it stood at 35.5 per cent.[13] The secular shift of public support of education to the state government which is less subject to widespread knowledge and popular control is more clearly demonstrated when we consider the pattern of state support among the different states.

Table 14 shows that the poorer states, as measured by per capita personal income, make a greater effort to support education. The poorer states spend 3.23 per cent of their personal income on education against 2.60 per cent for the higher-income states. More interesting is the division of fiscal responsibility among the local governments and the distant state legislatures. In the high-income states, local governments raised 62.0 per cent of their school revenues while the poorer states raised only 38.7 per cent of their revenues from local sources. The greater effort made by the poorer states to support education is attributable to a shift of fiscal support from the local to the more complex state government.

[11] *Ibid.* Classification of fiscal dependence or independence made upon the basis of the state school directory.

[12] The above findings only refer to expenditures. They do not directly show that nonindependent school departments provide better education. It is possible that the political infiltration associated with the school department becoming part of a general budget may result in poorer education. My only point is that the school alliance with the professional politician eases their budget constraint.

[13] U.S. Office of Education, *Biennial Survey of Education in U.S., 1953–1954*, p. 26.

TABLE 14

State and Local Expenditures on Education by State Income Levels

	Personal Income Per Capita 1953–54	*School Systems' Revenue Receipts as Percentage of Personal Income 1953–54*	*Local Revenue as Percentage of Total School Revenue 1953–54*	*Local Revenues as Percentage of Personal Income 1953–54*
Higher Income				
States[1]	$1,225	2.60%	62.0%	1.61
High effort[2]	1,094	3.12	52.8	1.65
Low effort	1,313	2.30	68.9	1.59
Lower Income				
States	645	3.23	38.7	1.25
High effort[2]	567	3.74	33.6	1.25
Low effort	690	3.00	41.8	1.25

SOURCES: Personal Income: *Survey of Current Business*, September 1955, pp. 16–17. School Revenues: U.S. Office of Education, *Biennial Survey of Education, 1952–1954*, Ch. 2, pp. 70–1.

[1] The twenty-four states with higher per capita personal incomes.

[2] The twelve states in this group with higher percentages of school revenues receipts to personal income.

It would be hazardous to extend without modification this piece of school finance analysis to the proposed special districts and authorities which many municipalities are seeking. First, most of these special governments are not heavily dependent upon any special taxes and therefore they are less subject to voters' constraints. They frequently make use of user charges such as metered water, bridge tolls, and leases at airports. Controlling as they do commodities with inelastic demand, and assessing prices according to average cost principles, they find little difficulty remaining solvent and encounter little political opposition. But what if these governments were to extend their activities to include functions which necessitated reliance on a tax, usually the property tax? Would they find severe fiscal restraints? There is no easy empirical answer, since these groups have not been studied closely and the reported statistics lump under the single heading of special districts a most heterogeneous group— dominated by fire, and irrigation, and soil conservation districts. Some indications that they might then be severely subjected to voters' constraints can be inferred by their resistance to proposals to extend their scales of operations. For example, the New York Port

Authority is opposed to moving into the areas of mass transportation where financing methods other than average-cost pricing might become necessary.

To summarize: The single-function governments which are fiscally important in local finance (in 1957, the special and school districts spent almost as much as the municipalities) are very limited in their ability to mobilize their fiscal resources. They lack the freedom to jockey for support of a composite program. Their escape from this position is to depend upon support from more complex governments, the state, and to rely on pricing mechanisms which avoid the problem of nonaccord between the distribution of the benefits from the public services, and the costs of financing them.

7.

One reaction of governments to the voters' constraints is the substitution of pricing mechanisms for taxes. Prices have the great virtue that they provide a means by which to measure the residents' desires for the service, they are a flexible device to ration efficiently the supply of public facilities and service, and if they are the basis of financing a project they reduce voters' opposition since the unbenefited voters are not being asked to pay. Prices may not be efficient for all public services. However, there are several services for which they would have all three of the above virtues. A research study on the use of pricing mechanisms by governments would be a great boon to municipalities. Too frequently, simple average-cost prices are established which do not efficiently ration the supply, or generate information about desires for the service. Sometimes, the average-cost price does not free the government from seeking supplemental support from tax-raised funds, in which case they are returned to the old problem of voters' constraints, albeit modified.

Accompanying the growth of pricing mechanisms, is the shift in local debt from bonds backed by the tax base of the local governments to bonds backed only by earnings of specific activities or facilities or special assessment. In 1940, the nonguaranteed debt was 6 per cent of the total long-term debt of local governments. This percentage increased to 29 by 1957. A large part of the increase in local debt was incurred by school districts which could only issue bonds backed by the full faith and credit of governments. If we consider the debt of all local governments, excluding school districts, the nonguaranteed percentage increased from 6 to 43 between 1940

TABLE 15

Municipal Nonguaranteed Debt and Services Charges
by Size of City, 1957

Size of City (by population in thousands)	Revenues from Charges and Miscellaneous as Percentage of All General Revenues	Nonguaranteed Debt as a Percentage of All Long-Term Debt
All Cities	17.3	31.7
1,000 and more	13.3	21.7
500–1,000	13.3	15.2
250–500	23.7	39.5
100–250	17.0	36.3
50–100	18.6	35.6
25–50	19.9	40.5
Under 25	22.1	48.3

SOURCE: U.S. Bureau of Census, *Summary of City Government Finances in 1957*, July 1958, pp. 11 and 15.

and 1957. Most of this increase was accounted for by municipal and special district governments.[14]

Of special interest for this paper is the reliance on prices and nonguaranteed debt by size of city, a shown in Table 15. My argument would lead to the expectation that the smaller and more simple cities would feel a stronger voter constraint, and thereby would be forced to rely more on pricing mechanisms and on nonguaranteed debt. This expectation is confirmed. The smaller cities, those under 50,000, make a far greater use of nontax financing of local services and facilities than the larger cities—those over 500,000. This despite the fact that the larger cities had per capita municipal expenditures twice that of the smaller cities. If the smaller cities tried to approach the expenditure level of the larger cities, their reliance on nontax financing would have to be still greater.

8.

Another adaptation pattern of the neighborhood-municipalities to voters' constraints is the surrender of their fiscal independence. The school district is the classic case of a transfer of fiscal support to a more distant government, the state. There are persistent efforts to construct a single unified metropolitan government with sufficient fiscal strength and authority to plan and carry out plans for the

[14] Debt figures for recent years can be gotten from the U.S. Bureau of Census annual reports on *Summaries of Government Finance.* In earlier years they are available in their annual reports on *Government Debt.*

TABLE 16

Increases in Education and in All Other Grants
Between 1942 and 1957
(millions of dollars)

	Education Grants	*All Other Grants*
State to local	$3,304	$2,226
Federal to state	290	2,408

SOURCES: Census Bureau publications: *Historical Statistics of State and Local Government Finances, 1902–1953,* Table 2; *State Government Finance in 1957,* Tables 1, 15.

interdependent metropolitan area. So far these efforts have borne little fruit. Metropolitan government is still only on the banner of the professional administrators. It has not found a place on the political agenda. Although a metropolitan government remains nonexistent, there is a transfer of fiscal functions to higher level and more complex governments. The increasing role of the federal government in local affairs is apparent. Similarly, the state government has grown relative to the municipal governments in the last few decades, despite the growth or urbanism.

The major shift from local to state support has been in the form of the direct growth of state activities. Again, this can be related to the difficulties of the local governments to muster the political support to expand their services. The growth of the state relative to the local has been in the direct provision of services rather than through grants-in-aid. Table 16 shows that from 1942 to 1957 state payments to local governments increased by $5.5 billions and federal grants to states increased by $2.7 billions. Separating the grants between those for education and all others, it is apparent that except for education the state government has merely been a transfer agent between the federal government and the local government. The increase in federal grants to states for noneducational purposes has been only slightly greater than the increase in grants by the states to locals for noneducational purposes. Therefore, the increase in noneducational grants by the states does not represent a transfer of fiscal responsibility from the locals to the states. Educational grants do represent a growth in the fiscal importance of the state relative to local governments. The educational grants result in an increase in the proportion of state and local taxes raised by the state government.

Other than education, the transfer of fiscal responsibility to the states has taken the form of expanded services by the state government. Transfers have more commonly occurred, as would be expected,

TABLE 17

State and Local Payrolls and State Grants to Local Governments
as Percentages of Personal Income, 1957

	STATE AND LOCAL			STATE GRANTS	
	Total Payrolls	*Noneducation Payrolls*	*Local Non-educational*	*Educational*	*All Non-educational*
Higher Income					
States	4.61	2.66	1.61	1.08	1.03
Higher effort	5.24	3.01	1.80	1.34	1.33
Lower effort	3.91	2.27	1.40	0.80	0.72
Lower Income					
States	4.91	2.69	1.20	1.53	0.68
Higher effort	5.48	2.99	0.94	1.71	0.95
Lower effort	4.58	2.52	1.35	1.43	0.52

SOURCES: Payrolls: U.S. Bureau of Census, *U.S. Census of Government: 1957*, Vol. II, No. 1, *Summary of Public Employment*, 1958, Table 16. State Grants: U.S. Bureau of Census, *Compendium of State Government Finances in 1957*, 1958, p. 25. Personal Income: *Survey of Current Business*, August 1958, p. 13.

where political resistance to local services is the greatest. This is demonstrated in Table 17. Note that the aggregate noneducational payrolls of state and local governments for both high- and low-income states are a constant percentage of personal income. The local noneducational payrolls alone do not show the same pattern. In the states with lower incomes, the local noneducational payrolls are a smaller percentage of personal income than in higher-income states. The differences in local support of noneducational services as revealed by these figures is almost identical with the differences in local support of educational services as shown in Table 14. Clearly, low incomes discourage local public support for public services. The local resistance does not effectively restrain the state government. Though local efforts remain the same for educational and noneducational services, the reactions of the states are quite different. For noneducational purposes, the state payrolls as a percentage of personal income are distinctly greater for low-income states than for higher-income states. The states spend more relative to the local governments where local resistance to public services because of low income is greatest. The relatively greater effort of poor state governments results in the same amount of state and local payrolls per dollar of personal income for both poor and rich states.

It is interesting that, although local efforts for the support of education and noneducation services are the same, the total state and local efforts by lower-income states relative to the higher-income states, is much greater for education than noneducation. Does this mean that it is easier to overcome the fiscal resistance of local voters by means of a grant-in-aid program which retains a modicum of local control, than by means of a direct transference of functions to a higher government? This would seem to be a reasonable hypothesis. Possibly it reflects the power of the educational bureaucracy to exact support from the state while retaining its own independence. In any case, the political dimension is necessary to understand the fiscal problems of local governments.

COMMENTS

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In a general way, I concur in most of the conclusions reached by Margolis in his interesting and ingenious paper. But I am uneasy about some of the propositions which have led him to the conclusions.

I will comment, first, on the discussion of the structure of the urban community, and second, on problems presented by deficiencies of urban governmental machinery.

1.

Margolis' schematic pattern of the city is the conventional one of a core, which is the population center, surrounded by rings in which land-use intensity and population density decrease, and per capita income increases, with distance from the center.

I think this schema hides about as much as it reveals about today's rapidly changing metropolitan areas, certainly about New York. First, there is great diversity in the size and configuration of metropolitan areas. Second, most metropolitan areas are rapidly changing shape.

Raymond Vernon points out in his recent CED pamphlet, *The Changing Role of the Central City*, that many of the centrifugal forces which tied industrial, commercial, and white collar employment to the city's center are weakening. The concept of accessibility, on which the Margolis scheme so heavily relies, must be redefined.

Some types of employment are leaving central business districts because new transportation forms make suburban locations more accessible for their purposes than the central city with its characteristic traffic jam. For many firms, accessibility which once depended upon central concentrations is now provided in part by far-ranging trucks and automobiles.

Along with this changing role of the central city goes a great heterogeneity of developments in the older, built-up sections. As the evolutionary process continues, buildings are progressively demoted to less valuable uses; this trend in itself is a powerful developmental force, comparable in some ways to the gradual exhaustion of agricultural land. Building and land values tend to decline as obsolescence progresses. We find the phenomenon in many older central cities of vast stretches of so-called gray areas, characterized by obsolescent buildings which are not removed simply because of the difficulty and high cost of assembling land and preparing it for new uses. Cost of clearance in Manhattan, for instance, may run to $200,000 or $300,000 an acre, whereas land can be had in the rings, with more adequate accessibility for industrial purposes, for a small fraction of this clearance cost.

Some central land, it is true, is being reclaimed for high-priced office buildings and luxury apartment houses. Other land is being rescued from advancing blight by urban redevelopment programs, with the high cost of acquisition and clearance paid for in part by the federal and local governments. But in most cities of my knowledge, these countermovements have been quite inadequate—gray areas are extending faster than they are being removed.

The gray area is typically a central city problem; it is one which can be attacked only with great expense and effort; and it is one of the main manifestations of governmental inadequacy in urban areas today.

2.

In Margolis' system of things, the high-income groups are driven out of the city by economic pressure of low-income groups, who are willing to bid more per square foot for space. This abstraction also hides about as much as it reveals. The concentration in the center of low-income groups is due in part to the existence there of large amounts of inferior housing, which they can command and for which they have little competition from higher-income groups.

But it is due also to a great complex of other factors, including political and sociological factors.

3.

Margolis' main questions are concerned with the role of government in the modern urban area.

Can present local governments effectively establish a framework for economic and social activity within the City?

Answer: No.

Does existing governmental structure—limited as to territorial jurisdiction, functional specialization and restricted fiscal tools—reduce the organizational efficiency of government?

Answer: Yes.

Great stress is put on fragmentation of governmental responsibility in urban areas, among many governmental units. Individuals with relatively similar preference-orderings find it possible to cluster together. This weakens possibilities of agreement on public programs in a metropolitan area, and weakens opportunities for residents to use their superior fiscal capacity to carry out the necessary organization of the area.

Here is an implicit value judgment, basic to Margolis' thesis as I understand it, on the point of whether values of the individualist society are served by allowing possibilities of choice as to levels of government service by clusters of individuals of like tastes. Margolis thinks not. But Charles Tiebout finds positive values in the ability of like-thinking people to express their preferences by choosing compatible local jurisdictions. (Two basic difficulties, of course, lie in spillover effects which may benefit communities who do not pay therefore, and in large disparities of fiscal capacity relative to "basic" or "minimal" local needs, however defined.)

Another point concerns the size of the package of governmental services which are voted upon. The larger the package, within reason, the more services which may be supplied, relative to the situation where consumers vote on each service individually. To quote: "The success of the multipurpose package is based on the existence of consumers' surplus of enough voters for specific projects

so that they are willing to endorse an entire package rather than lose the specific project."

But cannot this argument, based on a theory of log-rolling, be turned around? Can we not equally well say that the failure of the multipurpose package is due to the existence of the consumer's deficits of enough voters against specific projects so that they are willing to lose the entire package rather than take specific projects which they do not desire to pay for, or to which they may violently object? Logs may be rolled backward as well as forward, and frequently are.

To illustrate my point, New Jersey, a large governmental unit and one of the wealthiest states, is one of the most niggardly in support of governmental services. New York State, next door, is one of the most generous.

New Jersey, I submit, is a case of backward log-rolling, where the forces predisposed, or not indisposed, toward low state taxes find more in common than the forces favoring more governmental services.

I therefore would not want to gamble on a principle of organization based on the thesis that larger jurisdictions and more complex jurisdictions make it easier to extend the scope and quantity of governmental services.

4.

Despite my questions about Margolis' specific points, I of course agree that existing urban government is not adequate for modern urban problems. New forms of organization are needed for certain functions which can be handled efficiently only by jurisdictions encompassing entire urban areas. Some services and benefits can be provided most economically on a large scale, some are efficient only when they are integrated, and some can be handled only by having a central authority to resolve intra-area conflicts.

The New York City area, for instance, needs a unified program for water supply, waste disposal, pollution of air and water, recreation, and a unified comprehensive transportation policy and structure. Some or all of the same items are predominant needs of most metro communities.

One great need to be served by area-wide governmental machinery is that of efficient tax administration. Though the largest central cities are big enough to avoid typical difficulties of local taxation

which arise from small-scale administrative organization, smaller jurisdictions generally are not. (The jurisdiction should be large enough and isolated enough to prevent avoidance by persons and firms moving over boundary lines or shopping outside the jurisdiction. And it should be large enough to afford the specialists and machinery necessary for efficient tax administration.)

Another major problem concerns the disparities of fiscal capacities among fractionated governments.

5.

I continue with a specific example of local governmental inadequacy whose causes are considerably more varied and complex than those discussed by Margolis. The Washington metropolitan area is just winding up a three-year study of its transportation requirements which indicates a need for constructing about $1.8 billion worth of highways and a $500 million rail transit system in the next twenty years. The rail transit system, it is agreed, cannot be entirely self-supporting; part of the costs of construction will have to be met by revenue sources other than fares. Unless the federal government is willing to finance the entire system, the region itself will have to put up a substantial amount to get the highways and rail transit system built.

The bulk of construction costs will be for construction in the District, while the bulk of the benefits will accrue to residents of Maryland and Virginia using the system for the journey-to-work. Increments to property values resulting from regional development (made possible in part by transportation facilities) will be concentrated largely outside the District. Hence there is no neat formula by which present local governments, acting by themselves, can match costs and benefits. A region-wide tax or combination of taxes, related as closely as possible to benefits, is indicated.

In addition to taxing powers, other powers would be required for an efficient transportation system. These include the power to control the flow of traffic on arterial roadways, the entry of vehicles into congested areas, and, of course, regulatory controls over private transit companies. Vesting such controls in a region-wide agency impinges on the jealously guarded power of existing local governments, and of state regulatory bodies. The transportation agency would also require the power to condemn land, another jealously guarded prerogative.

An organization capable of financing and operating the system, in a region comprising parts of two states and the District of Columbia, will have to be created.

The most adequate device would be a regional transportation agency, with the powers mentioned above, created by an interstate compact of the two states and the District of Columbia. But interstate compacts are always difficult to negotiate, and the greater their proposed scope, the more difficult it is to set them up. No compact agency to serve local areas has ever been endowed with taxing powers, or with other powers as broad as those listed above. Add to other obstacles, the low regard of the Virginia state government for the interests of urban northeastern Virginia, the proprietary interests of the federal government in the District, and matters relating to income levels and racial composition of various sectors, and it looks as if the cause of transportation improvement in the Washington region may be stalled for a long time to come if it has to wait on an interstate compact agency.

The only alternative to an interstate compact organization is a federal corporation, with the same territorial jurisdiction and the same powers (except taxing power, which cannot be exercised by a federal corporation). Such an agency could be created by an act of only one legislature, the federal Congress. But here again, are formidable obstacles. The corporation would need not only unusual powers, but also generous grants of federal funds, since it could not impose taxes. The very idea of having to live and share power with a federal corporation ·is anathema to many local politicians and government officials. Some observers therefore see little more chance in the foreseeable future for a federal corporation than for an interstate compact agency.

6.

In conclusion, the inadequacy of local government for the requirements of the urban age has many and varied roots. It is only one example of the general tendency of development of social institutions to lag behind technological and other developments, including population growth. But the prospects for improvement are not entirely dark. There are encouraging notes in the widespread interest in metropolitan problems, and moves in many metropolitan communities, amounting at least to getting a toe in the water, for dealing with them.

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Congratulations to Julius Margolis for a stimulating and, on several points, a pioneering paper. The theoretical statement of the relation of functional and spatial differentiation within metropolitan areas to fiscal needs and resources is excellent. Comparison of the criteria of welfare economics with those of political choice offers an interesting and useful insight. Introduction of the concept of "envy-equity" and broadening the horizons beyond the equity issue are commendable.

The assignment in these comments, as I have interpreted it, is to discuss the Margolis paper in light of the data and analysis developed from the studies of the Cleveland metropolitan area.[1] The Cleveland metropolitan area is a large but relatively uncomplicated area, entirely within a single state and with 95 per cent of the 1950 population in a single county.

The Cleveland METRO study offers mountains of data to verify many of Margolis' points. The great diversity of municipalities within a metropolitan area, for example, can be vividly documented. Hunting Valley—the most exclusive residential village with dividend and interest income averaging $7,000 per capita, residential assessed valuation of $37,000 per residence on a 40 per cent assessment ratio, and police service which includes delivery of the morning paper— and Cuyahoga Heights—the epitome of the industrial enclave with two huge steel plants to support 785 residents with per capita municipal expenditures of $527 on a municipal tax rate of about 1/4 of 1 per cent on true value—represent the diverse but richest suburbs. Oakwood with a per capita assessed valuation only one-one-hundredth that of Cuyahoga Heights, and Woodmere which is both small and poor requiring about a 1.5 per cent tax on true value of property just to maintain a full-time police force, exemplify the poorer communities.

The Cleveland study gives results which conflict with two of Margolis' points. First, Margolis contends that single-purpose

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[1] Cleveland Metropolitan Services Commission, a private, nonprofit research organization, has published a series of studies on many aspects of the metropolitan problem. For those relating especially to government finance in the metropolitan area, see Sacks, Egand, and Hellmuth, *The Cleveland Metropolitan Area: A Fiscal Profile* (1958) and Sacks and Hellmuth, *Financing Governments in a Metropolitan Area: the Cleveland Area Experience* (Free Press, Glencoe, Illinois, 1960).

governments find it more difficult to gain local tax support for their programs. Independent school districts are cited as the prime example of this situation. All school districts in Ohio are separate and independent from other local governing bodies. School districts in the Cleveland area find it easier to muster political support than do the municipalities. Ohio has a limitation of ten mills on the property taxes which may be imposed without a referendum. One of the few advantages of this tax limitation is that it produces a scoreboard showing the popular support for expenditures for different functions.

In Cuyahoga County over the five-year period 1953–57, the municipalities put 126 operating levies on the ballot, of which 74 or 58.7 per cent passed, while school boards presented 95 levies to the voters of which 91 or 94.5 per cent passed, as shown in Table 1. Of the 95 municipal bond issues, 68.3 per cent passed, but of the 72 school bond issues, 90.3 per cent passed. The percentage required for passage is 50, 55, or 60 per cent of the votes cast, depending on the sponsoring government, the purpose of the issue, the duration of the tax rate, and the type of election. School issues polled more popular support in every classification by percentage required. County and municipal officials regard with envy the ease with which school issues are passed.

And voter support for schools is strong despite the high level of school tax rates relative to municipalities'. The school share is exactly half of the average property tax rates in Cuyahoga County, equal to the combined state, county, and average municipal rates. The tax rate in 30 of the 32 school districts exceeds the comparable municipal tax rates. And the school tax rates have increased more rapidly than rates for municipal and county purposes, with schools increasing their share of the property tax levy from 35 per cent to 50 per cent since 1940. State support for schools in Cuyahoga County has decreased on a relative basis, from 22.6 per cent of total revenue in 1940 to 16.5 per cent in 1956.

A check of the Census data which Margolis used at page 263 to show that payroll per pupil for April 1957 was less in independent than in dependent school districts, leads me to the opposite conclusion. My calculations indicate over $21 of payroll per pupil in all *independent* school districts against less than $17 per pupil for all *dependent* school districts, reversing the relationship shown in his text. The Margolis figures show payroll per pupil comparing *all* independent school districts with *only municipal* dependent school

TABLE 1

Number of Tax Levies and Bond Issues Succeeding and Failing by Vote in Cuyahoga County Municipalities and School Districts, 1953–57

PERCENTAGE OF VOTE RECEIVED	TAX LEVIES — Percentage Required for Passage						BOND ISSUES — Percentage Required for Passage		
	50%		55%		60%		55%		60%
	Municipal	Schools	Municipal	Schools	Municipal	Schools	Municipal	Schools	Schools
75 and over	2	10	–	–	9	2	13	12	8
70–74.9	2	12	7	–	9	3	8	11	4
65–69.9	2	18	2	3	7	2	25	11	5
60–64.9	–	20	6	5	9	4	27	7	4
55–59.9	6	5	10	4	7	–	22	3	1
50–54.9	3	3	5	–	11	1	22	1	–
45–49.9	6	2	6	1	6	–	6	2	–
40–44.9	1	–	1	–	2	–	8	–	1
Under 40	4	–	2	–	1	–	8	1	1
Number Passing	15	68	25	12	34	11	95	44	21
Number Failing	11	2	14	1	27	1	44	4	3

SOURCE: O. Waldby and A. Theuer, *Problems of Financial Management in Cuyahoga County*, Ch. 4, Cleveland Metropolitan Services Commission, 1959.

districts. Exclusion of the generally lower-cost dependent school districts operated by county and township governments accounts for the different results.

This evidence suggests that single-purpose governments with a popular function may attract more support than governments providing a complex of functions each with minority support.

A logical case can be made that state support for public schools has increased in order to escape the disadvantages of the property tax. Except for one or two states, the property tax is the sole local revenue source available to independent school districts. When the education function is included in the budget of municipalities or counties, other revenue sources besides the property tax are usually available. Thus, when a county or municipal budget includes the education function, other local revenue sources are available to supplement the property tax.

With inflation, the postwar bulge in school enrollments, and a more widespread desire to equalize educational opportunities and standards in public schools throughout the state, most states have increased their aid to education in preference both to heavier local dependence on the property tax and to providing other local revenue sources to the independent school districts. State grants shift the burden from the local property tax to sales, excise, and income taxes. These taxes have advantages over the property tax in that they can be administered more effectively and economically at the state level, are more responsive automatically to increases in income and prices, and avoid the sometimes harmful competition among jurisdictions within the state to keep rates low. The effect of an intrastate educational equalization program shows clearly in Cuyahoga County. The Ohio School Foundation Program, which provides minimum aid to every school district and additional aid to the poorer districts provided 34 per cent of the funds to support public schools in the state in 1957. But the Cleveland area school districts—richest in the state in terms of local tax capacity measured by assessed property value per pupil—received an average of only 17 per cent of their revenues from the state.

The hypothesis that financing or functional responsibility is shifted to higher levels of government to gain political support seems to neglect the greater taxing capacity of the higher-level governments. The Cleveland METRO staff report, for example, is recommending that when substantial additional amounts of revenue

are needed, a county-wide income tax would be preferable to new taxes in the 58 municipalities and 32 school districts in the county. This new tax would be available both to finance increased needs and to correct the existing imbalance in revenue needs and capacities between different jurisdictions.

The hypothesis that complexity of government organization facilitates political support, though not borne out by schools, is substantiated by comparing the tax support received by 36 villages with that of the 21 cities excluding Cleveland. Villages generally provide fewer and lower-quality services than cities in part due to lower tax rates. The average millage levied by villages in 1956 was 5.3 mills compared with 10.0 mills in the cities.

Second, evidence from the Cleveland study suggests that the fiscal position of the central city government relative to the suburbs is more difficult than Margolis indicates. The Cleveland area conforms to the quantitative data, presented in Table 11 of the original paper, showing the greater per capita expenditures in the central city and allegedly the even greater per capita revenue capacity. But taxable real and tangible property, on which Margolis' data is less conclusive, is the major local source of revenue. The county is the assessing jurisdiction in Ohio. In Cuyahoga County, Cleveland has 58.6 per cent of the population and 67.8 per cent of the municipal current operating expenditures (58.9 per cent including schools), but only 56.6 per cent of the assessed valuation. Despite the heavy concentration of commercial, industrial, and utility property in the central city, the assessed valuation per capita is only $2,964 in Cleveland against $3,066 in the entire county. County, state, and Census sources indicate that assessment ratios in Cuyahoga County are higher for commercial and industrial properties than for residences. As residences constitute a higher proportion of the tax base in the suburbs than in the central city, adjusting assessed values to full values would show an even greater differential in favor of the suburbs over Cleveland. Per capita and per family income are also lower in the central city than in the entire county, as shown in Table 2. Thus the central city has a greater absolute need and a lower absolute capacity in the Cleveland area. Margolis' data in Table 13 shows for the San Francisco area also that average household income is lower in the central city than in the suburbs.

Margolis' analysis explains the lower expenditures per capita in the suburbs compared to the central city in terms of the simpler

TABLE 2

Fiscal Indices of Central City and Suburbs
in Cleveland Metropolitan Area, 1956

	Cleveland	*Suburbs*
Population	926,052	654,501
Average income per capita	$2,089	$2,590
Assessed value per capita	$2,964	$3,210
Municipal expenditures per capita[a]		
Current operating	$59.30	$39.80
Capital	18.00	18.20
Total	80.60	60.20
Municipal total expenditures to income	3.86%	2.32%
Municipal tax rate (mills)	16.80	7.53
School expenditures per capita[a]		
Current operating	$42.20	$60.30
Capital	3.00	23.50
Total	45.20	86.90
School total expenditures to income	2.16%	3.35%
School tax rate (mills)	12.80	17.58
School ADM[b] to population	12.9%	16.6%
Municipal plus school expenditures, per capita[a]		
Current operating	$101.50	$100.10
Capital	21.00	41.70
Total expenditures	125.80	147.10
Combined total expenditures to income	6.02%	5.68%
Combined tax rate (mills)	29.60	25.11

[a] Interest expenses are not shown separately. Expenditures for transit, water, and electricity are excluded.
[b] Average daily membership.

nature of government operations, making a coalition in support of different functions less likely. This analysis neglects the different needs and preferences for government services of the diverse neighborhoods and jurisdictions. Higher total expenditures per capita in the central city and industrial enclaves, represent a different product-mix of services from that of the dormitory communities. The mix differs both in range and emphasis. The central city spends more for welfare, urban renewal, slum clearance, police, and fire due to greater traffic, different type of property, and the composition of its population by employment stability, income level, and density. The industrial enclaves had very high expenditures per capita for general government, police, fire, streets, and total expenditures but little or no spending for most other municipal functions. The municipal expenditures of the business suburbs, other than the industrial enclaves, are not distinguishable from the dormitory communities in the Cleveland area.

The parts of the Margolis study comparing the central city and the different classes of suburbs seems to cover *only municipal* expenditures, and *not school* expenditures. The Cleveland area shows a pattern of school expenditures almost diametrically opposed to the pattern of municipal expenditures. Although municipal expenditures are higher per capita and in terms of effort in the central city, school expenditures are higher per capita and in terms of effort in the rest of the county. Capital outlays, especially for schools, are sharply higher outside the central city—$23.50 per capita in the suburbs versus $3.00 in Cleveland. As school expenditures are larger now than municipal spending, the current operating expenditures per capita for municipal and school purposes combined are now about equal in the central city and the suburbs. (See Table 2.) If capital outlays are included, the suburban expenditures per capita are $147.10 against $128.80 for the central city. The tax effort of the central city is greater, however, due to its low capacity and less borrowing.

Another point deserving comment is the question whether municipalities in metropolitan areas are becoming more diverse. The evidence is not conclusive either in Margolis' paper or in the Cleveland area. A number of factors and developments point toward greater diversity:

1. Population growth is most rapid in the 36 villages, 21 of which have areas of less than 5 square miles and another 10 of which are between 5 and 10 square miles. The smaller the area, the more likely only one or two neighborhoods and a narrow range of interests will be included.

2. Almost no land area is left to enlarge existing municipalities. Less than 15 square miles of area in Cuyahoga County is currently outside municipalities. With municipal home rule protecting existing municipalities no matter how small or how poor, the prospect of reducing the number of municipalities is very dim.

3. The racial composition of the central city is steadily growing more different from the suburbs. The nonwhite population in Cleveland is now estimated at about 25 per cent of the total, compared with 9.7 per cent in 1940 and 16.3 per cent in 1950. No more than 4 of the 57 suburban municipalities have over 5 per cent nonwhite population. However, the future increase in the nonwhite population due to in-migration is expected to slow down.

4. Much of the future population and economic growth in the

Cleveland Metropolitan Area will take place outside of Cuyahoga County. Lake County to the east, already included in the metropolitan area by the Census definition, had less than 6 per cent of the metropolitan population in 1950. Future growth will occur in several counties to the south and west as well, complicating the problem across county boundaries and involving adjacent metropolitan areas, such as Akron.

On the other side, several factors suggest less diversity in the future:

1. Population growth and spread have converted Cuyahoga County into an urbanized county. The greatest diversity of interests exists between urban neighborhoods and rural villages and townships. But the rural areas have almost disappeared. Only 0.02 of 1 per cent of assessed real estate valuation is agricultural. Only 2 villages out of the 58 municipalities have more than 10 per cent of their real estate assessed values in agricultural uses. Growth has created greater similarity of services from local governments in the metropolitan area. This greater uniformity is also reflected in the narrowing of the range of local property tax rates between different jurisdictions in Cuyahoga County since 1940. Especially the very low rates of the former rural areas have moved much closer to the mean tax rates for cities and villages. The coefficients of dispersion for the 58 different municipal tax rates around the city and village means have declined almost half since 1940.

2. The county has recently taken over responsibility for several functions formerly performed by municipalities. Welfare administration, Cleveland City Hospital, and schools for delinquent boys and girls have been transferred to the county, with popular vote supporting the additional county property taxes to finance these functions.

3. In November 1958, the people of Cuyahoga County voted to establish a county charter commission. This commission is now at work on a charter which will be presented for approval or rejection at the November 1959 election. To pass, the proposed charter must be supported by a majority of voters in the central city— Cleveland—and by a majority of voters in the rest of the county. An amendment to the Ohio Constitution in 1957 removed the former requirement that the voters in a majority of municipalities in the county had to approve the charter. The importance of each neighborhood under this procedure depends more on its voting strength than on its existence as a separate political entity. A county charter

thus offers real possibilities for more integrated government in the Cleveland area.[2]

The popular vote on transfer of functions to the county and on establishing a county charter commission indicates Margolis' "envy-equity" principle. Generally the vote in the lowest- and highest-income neighborhoods favored the changes. The voters in lower-middle income areas—who do not clearly see gains for themselves, who perhaps see their relative position threatened, and who are not motivated by *noblesse oblige*—have generally opposed the changes.

My parting comment is directed to Margolis' first table, which he introduces to show that local support of local government is below *prewar* years. Use of the depression year of 1932 as the first year in the series, probably dictated by the availability of continuing series for GNP and implicit price deflators, causes the decline in local revenues and expenditures to appear larger than if any other year of a local government census were chosen. My admittedly crude estimates for 1922 and 1927 still show a decline but a much smaller one than if 1932 is the starting point. (My calculations indicate revenue from local sources of 5.9 per cent in 1922 and 7.6 per cent in 1927, with direct expenditures of local governments 7.1 per cent in 1922 and 8.4 per cent in 1927, each expressed as a percentage of real gross national product to fit with Margolis' data in Table 1.)

A methodological question arises also about a real measure of local government revenue as used in Table 1. Which is the best price index to use to deflate government revenue? The implicit price deflator for the appropriate government sector measures the real purchasing power to the receiving government. The consumer price index, however, would measure better the loss in real buying power to the individual taxpayer. Some might prefer the implicit price deflator for total GNP. In the Cleveland study the decision was to deflate local government expenditures with the implicit price deflator for state and local government purchases and to adjust local revenues with the consumer price index. This procedure creates a new gap between revenues and expenditures due to the two types of "constant" dollars. We would be glad to get your reaction to this method.

[2] Since this paper was presented, the proposed charter for Cuyahoga County was defeated at the 1959 election, failing to receive a majority either in Cleveland or in the county outside of Cleveland.

WERNER Z. HIRSCH, Washington University and Resources for the Future

Julius Margolis has courageously plunged into the difficult undertaking of seeking an answer to the questions "What are the sources of the fiscal crises of metropolitan areas?" and "Is the crisis likely to become more acute?" If I understand him correctly, his main thesis can be summarized as follows: Spatial differentiation of economic activity in metropolitan areas causes conflicts of interest among individuals, particularly as taxes are not assessed in proportion to benefits received. The smaller the local governments, the more visible their actions, the more directly related to tax payments specific public services, and the more government units in a metropolitan area—the greater the frustration of local government, and the greater the fiscal crisis. On the other hand, "multipurpose package" voting and ignorance of the people permit the resolution of conflicts by the political process of persuasion and negotiation and, thus, the alleviation of the fiscal crisis. To quote Margolis on this latter point, "Ignorance and the acceptance of the rules of the game implicit in majority rules permit the resolution of conflicts by the political processes of persuasion and negotiation, while knowledge of consequences and their implications for one's own self-interest would lead to frustration of policy by focusing on possibly irreconcilable conflicts."

My comments will attempt to examine the basis of two major tenets of Margolis' thesis and their implications, and then consider some issues connected with the framework for analyzing metropolitan finance problems.

Package vs. Single Product

In analyzing the "normal" pattern of public choice between "multipurpose package" and "single product," it appears useful to distinguish between policy and legislation. Except for a few "omnibus" bills of Congress, legislation, particularly on the local level, is usually specific. On the other hand, there is available evidence which indicates that people in voting for a party or candidate tend to vote for the policy for which they think the party or candidate stands. This too, however, is less true on the local than on the national level. To me, it appears not so evident why "it is reasonable to hypothesize that the greater the number of products offered in the

package to the voter the greater the likelihood of adoption." Likewise, more careful analysis is needed before we can be sure that "voters . . . are willing to endorse the entire package rather than lose the specific project (close to their heart)." A very large number of people called upon to vote on local fiscal matters appear satisfied with the status quo. Often no specific project is close to their heart. Furthermore, a careful study remains to be made as to whether the following hypothesis does not offer a better explanation: combining many projects into one package affords strong political or special interest groups an opportunity to seize on one issue, possibly a minor one, dramatize it and defeat the entire package.

To back up his contention, Margolis states that the schools are the major fiscal problem of local governments. As reason he cites that the single purpose district permits voters to "readily develop a negative or positive attitude toward the extension of the school budget." In this very characteristic, to my mind, can lie not only the weakness but also the strength of the single purpose district. Again more work appears in order before generalizations are possible. No doubt there are other, perhaps more important sources of schools' fiscal problems. Much of the difficulty of schools arises from the fact that their budgetary needs are so great compared to other public services. In suburbia often more than two-thirds of all current local government. expenditures are for schools. For example, in St. Louis County, Missouri, school districts spent during 1951–55 an average of 66 per cent of the total outlay by local units, compared to 17 per cent expended by its 96 municipalities and 15 per cent by the county government.

Furthermore, in accordance with widespread state practices, property tax limitations are applied to local governments. For example, the permissible tax rate in Missouri for urban school districts, other than St. Louis, is 1 per cent of assessed valuation; the limit for St. Louis is 0.89 per cent, and for other school districts in Missouri it is 0.65 per cent. School districts may increase their rates to three times the specified limit, but only by annual popular vote. All school bond issues in Missouri must be submitted to a popular vote and must be passed by a two-thirds majority, while the total amount of indebtedness represented by general obligation bonds cannot exceed 10 per cent of the assessed valuation of taxable tangible property. It seems fair to say that restrictive tax and bonding limits written into state constitutions are the results of package and not single-product votes.

As further evidence designed to support the hypothesis that simple government structures are subject to more severe constraints, Margolis presents mean per-pupil expenditure data for fiscally dependent school departments and fiscally independent school districts. While the first are somewhat higher than the second, I would suggest that a simple comparison could be dangerous. States differ in their school subsidy program. Our study of factors affecting expenditures for public education appears to point to a host of factors which can significantly bear on per pupil expenditures.[1] How treacherous simple comparisons can be is illustrated in the St. Louis County experience with fire protection. In 1952 and 1955, the fourteen fiscally dependent fire departments spent on the average more per person than the eighteen fiscally independent fire districts. And yet from 1952 to 1955, the latter's per capita expenditure increased more (10 per cent) than that of the former (4 per cent). Our empirical analysis suggests that the wealth of residents, service levels, extent of commerce and industry, etc., greatly affect per capita expenditures for fire protection.

Margolis cites the heavy reliance of school districts on state subsidy as further support for his thesis. If the relatively large state subsidy for primary and secondary public education could be attributed to the fact that this service is rendered to a large extent by fiscally independent school districts (with single product votes), would we not expect special single purpose districts (other than school districts) to receive similarly important subsidies? But Census figures indicate just the opposite. Thus, in 1957 intergovernmental revenue payments for primary and secondary education, which was rendered only in part by fiscally independent school districts, amounted to 42 per cent of total school expenditures, while those to special districts not engaged in education were merely 8 per cent of their expenditures.[2]

Ignorance vs. Knowledge

Little, if any, evidence is offered to support the thesis that the ignorant voter helps solve local fiscal problems more than his knowledgeable brother. The same holds for the claim that political persuasion replaces rational self-interest. Is it really true that

[1] Werner Z. Hirsch, "Projecting Local Government Expenditures in Metropolitan Areas," *Proceedings of the Business Economics Section of the American Statistical Association* (1959).

[2] U.S. Bureau of the Census, *Summary of Governmental Finances in 1957*, August 1958, p. 22.

self-interest must be subdued and that it cannot be made to work toward the solution of metropolitan area problems?

Ends vs. Means—Question of a Framework

Margolis defines the fiscal crisis of local governments as a frantic search for tax sources, with public support possibly falling off. Yet, it is not clear that, if allowance is made for intergovernmental revenues for schools, highways, etc., real revenue from local sources as a percentage of real gross national product actually declined between 1932 and 1957. Even without such adjustments, the percentage has been steadily increasing ever since the end of World War II.

Such an approach, however, tends to look at metropolitan finance as an end in itself, when for many purposes the opposite is much more appropriate. I submit that in many respects metropolitan finance is better understood and its problems can be more successfully analyzed and attacked by looking at the dynamics of metropolitan areas in general. Metropolitan finance then becomes one of a number of different means toward a variety of ends. From the viewpoint of the area, public services and taxes provide residents with a more or less desirable place to live and work, and business and industry with an environment for more or less profitable business operations.

Within such a broader framework one of the great metropolitan area problems is to decide on the area's future image and the scope and quality of public services compatible with it. Other significant problems are developing means to improve fiscal capacity and finding revenue to finance these services, and establishing an environment which assures that they are provided efficiently.

How can imaginative and intelligent decisions be made as to what the area should look like ten, twenty, or more years hence and therefore what the appropriate fiscal needs of the area are? In planning the future of the area, it is important that the officials and the electorate have a reasonably clear picture of the main dimensions of the area's health and well-being. Among them are economic growth, increases in welfare, i.e., in per capita income, employment stability, amenities of life, etc. Alternative plans can then be judged in the light of the contributions they can be expected to make in specific terms.

In this connection, it is important to quantify the impact of specific local fiscal steps on the area's health and well-being and attempt to find a rough balance between benefits and costs. Such an

impact analysis is rather complex. First the impact of a given fiscal policy on private decision-makers must be assessed. How will their decisions with regard to the area be affected? Second, the impact of these induced private decisions on the region's health and well-being must be traced and estimated.

An area's health and well-being is not only affected by its local public and private activities. Exogenous forces beyond its control, too, have a far-reaching impact. They can upset local plans and create a variety of financial exigencies. For example, legislation in connection with the Federal Housing Administration has made possible the purchase of new homes with very small down-payments and monthly payments not much larger than monthly rent. As a result, many young families have been induced to become home owners in suburbia, stretching themselves to their financial limit. Not only is this legislation an important force contributing to urban sprawl, but also it transplants large numbers of families to suburbia at a time when their need for public services is at a maximum, while their ability to pay for them is at a virtual minimum. This FHA legislation, regardless of its other salutary effects, is no doubt responsible for some of the financial difficulties of public schools.

Municipal governments would be wise to charge much larger building permit fees designed to cover more of the capital expenditures for schools, highways, fire houses, etc. However, it is fair to assume that many governments will be reluctant to take such a step for fear that other municipalities will be more accommodating and, thus, grow more rapidly. Perhaps a better procedure would be to put at the disposal of the FHA a revolving fund from which suburban governments could borrow to help finance urban public capital expenditures needed by those who were induced by it to buy new homes in suburbia.

Another source of difficulty, though much less important, is that many areas compete with one another for new industry by keeping taxes to industry low or by even offering tax concessions to newcomers. There exists also much confusion about the financial blessings of industry. All too often merely the tax payments of the plant are compared with the costs of providing it with public services. A proper analysis would attempt to estimate direct and indirect changes in local economic activity brought about by the new plant. Once this was done, receipts and expenditures of the various governments associated with these activities would be estimated, added,

and compared. This final figure alone can indicate whether the new industry is a fiscal asset or liability.

Within this framework, what are possible vistas to the solution of metropolitan finance problems and what are their chances for success? I admit that philosophically my position stems from inherent, though somewhat moderated, optimism, and from a deep conviction that people and governments are fundamentally eager to make rational decisions. During the next decade or two, the perfection of a well-conceived and powerful general framework for making intelligent decisions on metropolitan area problems should be in our reach. Appropriate data should become available to implement important parts of it. With such help imaginative and rational solutions to metropolitan problems in general and fiscal problems in particular must and can be found. It should become increasingly possible to show the electorate that the individual's welfare is closely tied to that of the entire area. Once we can assess the indirect effects of local fiscal and other action, and cost and benefits of specific projects can be estimated and more adequately shared, I would hope that conflict-reconciling policies can be advanced. When we can show how much one section or industry of the area depends upon others and how apparently convenient short term temporary solutions can produce serious long term disadvantages and losses, appropriate action will, I trust, be forthcoming.

For instance, the St. Louis study made two empirical stabs at this issue. To illustrate the economic interdependence of the area, regardless of geographical location, it estimated the number of persons directly and indirectly employed by a large brewery and determined their place of residence. Located in the heart of the core city, it employed 6,000 employees (about 4,800 of whom lived in the core city itself). Directly and indirectly it provided employment for about 6,800 core-city residents, about 2,600 residents of St. Louis County and about 900 residents of the Illinois counties in the metropolitan area.

Another attack relied on the regional input-output table to show, on an industry-by-industry basis, the direct and indirect employment and income impacts of alternative industrial development policies.

Both types of information can help convince the voters that the entire area's welfare and growth is their concern. For example, public measures hurting the brewery enough so as to force it to move part or all its operations out of the area would have serious

repercussions for many residents of other municipalities in the area. But even without such a detailed study, it is not too difficult to show that low service-levels in some of the area's police departments can threaten much of the area with blossoming crime and high theft insurance rates.

No doubt there will be occasions when personal and public interests will seem irreconcilable. In such cases, higher levels of government will have to be called upon to establish an environment which can facilitate a creative resolution. Before this can be done, we must attain a better understanding of the exogenous effects of state and federal activities upon metropolitan areas. This is necessary also for another reason. As time goes on, the political power of metropolitan America will grow and the national government will become more and more responsive to the problems of metropolitan areas. At the same time, it will become increasingly important that the relationship between local public and private policies and the balanced growth of the national economy be more closely watched.

While state and federal government should play an important coordinating role, local governments should be encouraged to be increasingly active in fields to which they are suited. Let us not forget that, fundamentally, local governments offer the closest and potentially best link between people and government. In a democracy this link deserves continuous strengthening. Very large local governments often prove unresponsive to the needs and desires of the people.[3] Then the people tend to lose interest and their attitude to local officials and their tax needs can become negative. Efficiency considerations may not call for very large governments. The St. Louis study has shown that there are hardly any significant economies of scale in local government services. Exceptions are for water supply and sewage disposal.

There is, of course, a strong tradition of local self-government in the United States, which will make difficult, for instance, any attempted shift of land-use planning from a local to a higher level of government. But because of great differences of wealth and the conviction that every citizen should benefit from at least a minimum service level, the tax base of metropolitan areas or whole states should be pooled to underwrite a floor below which local public

[3] Lennox L. Moak, "Some Practical Obstacles in Modifying Governmental Structure to Meet Metropolitan Problems," *University of Pennsylvania Law Review*, February 1957, p. 611.

services cannot fall. Then it will be up to the specific community to poll its electorate and decide on service levels for schools, fire protection, refuse collection, etc., above the prevailing floor, and tax themselves accordingly.

However, some functions, such as traffic and transit and industrial development and planning, are area wide, and they must be handled on an area-wide basis. Other services, such as water supply and sewage disposal appear to benefit from economies of scale and can be most efficiently provided on an area-wide basis. In these cases, multipurpose districts and other arrangements can help meet these challenges and provide for the necessary financing.

The hope to the solution of metropolitan finance problems, to my mind, lies in more knowledge, which should enable us to weigh intelligently the local government services we desire against our ability to afford them. Then we can more judiciously establish priorities and plan for needed sources of additional revenue, in ways likely to be acceptable to an informed electorate.

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The Margolis paper is a solid contribution to the literature on local public finance. However, his choice of 1932 as a standard for comparing the relationship between local public expenditures and GNP is unfortunate, for a longer view tells a somewhat different story. Direct expenditures of local government rose from 5 per cent of GNP in 1913 to 7 per cent in 1927. The relatively high ratios of the thirties are attributable to the depressed level of total output. Since World War II, the local-expenditure component of GNP has again exhibited an upward trend with the ratio approaching seven per cent. Data for years prior to 1932 are shown below:

	1913	*1922*	*1927*
Gross national product, bil. of $	40.0	69.9	90.9
Direct expenditures of local governments,			
bil. of $	2.0	4.6	6.4
as % of GNP	5.0	6.6	7.0
Local government revenues from own sources,			
bil. of $	1.7	3.8	5.7
as % of GNP	4.3	5.4	6.3

SOURCES: Gross national product: J. F. Dewhurst and associates, *America's Needs and Resources: A New Survey*, New York: Twentieth Century Fund, 1955, Appendix Table 4-2. Based on unpublished data from Simon Kuznets.

Local revenues and expenditures: U.S. Bureau of Census, *Historical Statistics on State and Local Government Finances, 1902–1953*, Table 3.