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Roy W. Bahl and Larry Schroeder - FISCAL ADJUSTMENTS IN DECLIN- ING STATES

INTRODUCTION

The relative decline of *economic* activity in the industrial Northeast and Midwest has by now been well documented.¹ Likewise, there has been considerable attention paid to the fiscal problems of state and local governments, many of which are located in this same region.² This would appear to be no mere coincidence, and there has been increasing recognition of the linkages between a declining economy and a strained fisc.³ In fact, public policymakers may have begun to recognize this linkage, although it is difficult to ascertain if their response is based upon the economic environment or is merely political rhetoric in light of the Proposition 13 or Proposition 9 climate throughout the country.

The objective of this paper is to describe and analyze the linkage between variations in economic and demographic changes and state and local government finances. For the declining regions, particularly the mid-Atlantic states, the analysis shows an imbalance between public sector growth and the capacity to finance such growth. While this imbalance may have begun to be altered recently, there still

remains considerable disparity between the relatively declining Northern Tier of states and the growing South. Yet the discussion here is not without implication: for southern states currently experiencing economic growth but facing a similar set of factors that led to the increase in government costs in the North: inflation, in-migration, growing public service demands and increasing strength of unions.

An initial assumption of this paper is that regional shifts in population and employment are not undesirable *per se* and therefore should not be the object of remedial public policy. Nor is a trend toward interregional income equality or a growing homogeneity in the provision of public services across geographic areas necessarily detrimental to the public welfare. What is harmful about regional shifts and what ought to be at the center of concern about public policy to deal with such shifts are their effects on unemployment, poverty and the fiscal position of state and local governments. In a sense, all three of these concerns can be translated into a more general concern for the distribution of income—more specifically, to a concern for the share of purchasing power or public services accruing to low income families.

The problems of decline—those faced by the industrial Northeast and Midwest—would appear more difficult to resolve than the problems of growth—those experienced by the Southern Tier states. Migration barriers tend to hold the jobless in central cities in declining regions and institutional barriers tend to lead to a worsening fiscal position for jurisdictions in the declining region. But most importantly, the problems are the result of past decisions which are not easily reversed, and the solutions to the problems of decline are beyond purely state and local government actions. Federal subsidies will be imperative to ease the adjustment of northern states to a new, lower economic equilibrium. This is not to say that there are not severe fiscal and poverty problems in the southern region, but rather, to say that the adjustment problems associated with regional *shifts* are likely to be more severe in the Northeast. Moreover, many of the fiscal problems of northern cities and states need not be repeated in the South.

Regardless of one's view as to where problems are most serious or of how they might be resolved it is clear that an understanding of the linkages among regional shifts in employment and population, the unemployment problems particularly of large cities and the fiscal problems of state and local governments are essential to formulating a remedial public policy. This paper is a very modest attempt to deal

with one dimension of this linkage, the relationship between regional economic shifts and state and local government finances.

The analysis here is necessarily concerned with regional variations, more specifically, with the variation in finances of jurisdictions—state and local—in growing and declining regions. If any regularities are to be ferretted out, some form of aggregation of these jurisdictions must be used. Since the concern in this paper is with how the fisc has been compromised by regional movements in population, jobs and income, the financing jurisdictions are aggregated by state and region.⁴ We follow the general convention of labeling "Northern Tier" the aggregate of the East North Central, Middle Atlantic and New England Census Regions, and "Southern Tier," the South Atlantic, East South Central and West South Central regions.⁵

The danger with such aggregation is that there remain very wide differences in fiscal structure and performance across states in a region and even across local jurisdictions within a state. The reader should remain cognizant of such variations, especially when this analysis is overenthusiastic in identifying "clear" regional variations.

After reviewing the interregional differences in changes in economic activity over the past one and one half decades in Section I, we turn to a discussion of aspects of public sector differences in the "Snow-" and "Sunbelt" regions. Section III considers more explicitly the linkages between these changes in economic activity and the state of sub-federal fiscs in the regions. Particular attention is paid to the most recent short-term changes in economic activity—the recessionary period of 1974-1975 and the general upturn of 1976-77. The final section discusses implications of these findings.

INTERREGIONAL DIFFERENCES IN ECONOMIC GROWTH

The shift in economic activity from the northern to the southern states has been well documented in the literature. Jusuus and Ledebur have described this shift in terms of population movement,⁷ Greenberg and Valentes and Gamick⁹ have studied the trends in employment, and the Congressional Budget Office has described the pattern of growth in earnings and personal income.¹⁰ For purposes of this paper it is necessary to examine these trends in order to determine their potential effects on the taxable capacity and public servicing requirements of states in each region. Unfortunately, none of these indicators of economic expansion or contraction is an adequate measure of taxable capacity, partly because the tax structures of the fifty states vary so widely. Nevertheless, these

measures give some notion of how regional shifts in economic activity enhance or compromise the ability of state and local governments to finance public services. Insofar as possible, four time periods are considered. The 1962-67 period saw the beginnings of a southern movement of population and economic activity, a trend which accelerated between the period 1967 to 1972. The 1972-75 period includes the recession which heightened the "Sunbelt" movement, and the 1975-77 period accounts for the effects of the present recovery period.

INCOME

Per capita income is a composite measure which perhaps more than any other single index, indicates the average level of well-being of citizens in a region. Since per capita income is influenced by changes in population size, it may or may not provide a proxy measure of changes in the capacity to finance. As may be seen in Exhibit I below, the per capita income growth in the Southern Tier was greater than in the North for all four time periods considered here. It is interesting to note that the disparity in the rate of growth in per capita personal income narrowed during the recession period, and continued to narrow during the recovery. Between 1967 and 1972, per capita income in the Southern Tier was growing about 27 percent faster than in the North, but the differential growth rate fell to about 14 percent between 1972 and 1975. This narrowing in per capita income growth is due to a combination of relatively heavy loss of population in the Northern Tier states, a continued rapid growth of population in the Southern Tier states and, possibly, the flow of income-compensating transfer payments to the Northern states. In the recovery period, the process of convergence slowed-per capita income grew 4 percent faster in the Southern than in the Northern Tier states.

EMPLOYMENT

In terms of changes in the level of employment, the Southern Tier states have been growing more rapidly for all four time periods considered (see Exhibit 2). Even though the rate of employment growth has slowed in the southern states, it still remains considerably higher than that in the North. Perhaps even more importantly in the context of this analysis is the fact that the relatively low rate of employment growth in the Northern Tier between 1967 and 1972 turned to literally no growth and in some cases decline between 1972 and 1975 and has been very slow during the recovery.

EXHIBIT 1

Percent Increase In Per Capita Personal Income:
By Region For Selected Time Periods

State and Region	Unweighted Regional Means				1977 Level
	1962-1967	1967-1972	1972-1975	1975-1977	
NORTHERN TIER	33.2	38.0	28.5	20.0	7072
East North Central	33.2	37.9	29.4	22.1	7256
Illinois	31.3	36.6	32.9	15.1	7768
Indiana	33.1	36.9	30.0	23.4	6921
Michigan	38.1	39.3	24.6	27.1	7619
Ohio	33.1	38.4	28.3	22.3	7084
Wisconsin	30.7	38.5	31.5	22.7	6890
Mid Atlantic	31.9	38.3	28.3	17.7	7514
New Jersey	29.7	40.9	27.6	17.7	7994
New York	32.2	35.5	25.8	15.6	7537
Pennsylvania	33.8	38.7	31.5	19.7	7011
New England	33.7	37.9	27.9	19.4	6697
Connecticut	31.3	32.7	27.2	18.4	8061
Maine	34.1	41.0	30.8	20.4	5734
Massachusetts	28.6	40.1	26.1	19.3	7258
New Hampshire	31.6	38.7	28.7	20.8	6534
Rhode Island	36.6	34.0	28.7	19.1	6772
Vermont	40.1	41.0	25.7	18.6	5826
SOUTHERN TIER	40.9	48.3	32.6	20.8	6210
South Atlantic	39.2	49.9	30.5	19.3	6547
Delaware	27.1	36.3	28.6	17.4	7692
Maryland	29.8	47.7	30.0	17.9	7571
North Carolina	43.6	51.0	30.2	20.0	5935
Virginia	41.3	52.0	31.8	19.0	6864
South Carolina	48.3	53.8	32.3	20.7	5628
Georgia	46.2	51.4	27.4	19.7	6014
Florida	36.8	58.4	26.5	18.5	6684
West Virginia	40.3	48.9	37.0	20.9	5987

continued on next page

EXIDBIT 1 (cont'd)

	Unweighted Regional Means				1977 Level
	1962-1967	1967-1972	1972-1975	1975-1977	
East South Central	43.3	51.1	32.7	22.0	5596
Alabama	40.2	52.1	35.0	21.2	5622
Kentucky	39.1	47.2	35.5	21.8	5946
Mississippi	52.0	54.0	30.4	24.6	5031
Tennessee	41.7	51.3	29.8	20.6	5785
West South Central	42.0	42.4	36.8	22.5	6151
Arkansas	44.6	48.8	35.9	23.2	5540
Louisiana	43.8	37.2	37.0	23.6	5914
Oklahoma	39.6	41.5	37.1	20.7	6346
Texas	39.7	42.2	36.9	22.6	6803
	Weighted Regional Means				
NORTHERN TIER	32.5	37.6	28.3	19.3	7371
East North Central	33.4	37.8	29.3	21.3	7347
Mid Atlantic	32.2	37.5	27.8	17.2	7460
New England	31.2	37.4	27.0	19.7	7183
SOUTHERN TIER	41.1	49.0	32.4	20.7	6310
South Atlantic	40.3	52.4	29.5	19.1	6485
East South Central	42.3	50.9	32.7	21.7	5651
West South Central	41.0	42.0	36.9	22.7	6458

Source: Bureau of Economic Analysis, U.S. Department of Commerce, *Survey of Current Business*, 56, No. 8 (Washington, D.C.: U.S. Government Printing Office, 1976), and 58, No. 8 (1978).

In the Southern Tier, on the other hand, while the growth rate slowed between 1972 and 1975, only one state (Delaware) showed an absolute job loss. As may be seen from the weighted growth rates in the last column in Exhibit 2, the southern region has participated to a much greater extent than northern states in the recovery.

POPULATION

Yet a third way to measure the change in economic activity in the two regions is to examine the pattern and trend of population growth. On the revenue side, a declining population may mean a diminished capacity to finance public services if the population losses are higher earning families. If out-migration is primarily of low income families, service requirements may be reduced by more

EXHIBIT 2

Growth In Employment. By Region

Region	1962-1967 Percnt Change	Unweighted Means		1975-1977 Percent Change
		1967-1972 Percent Change	1912-1915 Percent Change	
NORTHERN TIER	16.7	7.6	1.9	6.4
East North Central	19.8	1.5	2.4	6.4
Middle Atlantic	12.6	6.0	-0.2	2.6
New England	16.3	8.6	2.5	8.2
SOUTHERN TIER	24.0	18.7	7.2	1.5
South Atlantic	24.5	20.4	5.8	6.1
East South Central	23.7	17.5	6.9	9.0
West South Central	23.3	16.4	10.4	8.8
		Weighted Means		
NORTHERN TIER	15.2	5.8	0.8	4.3
East North Central	19.4	6.8	2.2	6.1
Middle Atlantic	11.6	4.7	-0.8	1.8
New England	14.1	6.0	1.5	5.8
SOUTHERN TIER	24.7	20.2	8.4	7.6
South Atlantic	25.1	23.0	6.7	6.4
East South Central	23.6	17.3	6.5	8.8
West South Central	23.6	17.7	12.6	8.8

Source: Bureau of Labor Statistics, U.S. Department of Labor, *Employment and Earnings, States and Areas 1939-15*, Bulletin 1370-12; *Employment and Earnings* 25 No. 5 (May 1978) (Washington, D.C.: U.S. Government Printing Office, 1977).

than taxable capacity thereby enhancing the government's fiscal position. Population growth and changing demographic makeup are likely to influence the level of public expenditures. Weinstein and Pirestine, for example, have carefully studied and analyzed the relations between migration, demographic change and state-local government budgets and find evidence of positive effects of migration spending levels.¹¹

The North-South differentials in population growth rates are predictable. The growth in the Northern Tier has slowed markedly since 1962 and growth has been negligible since 1972 (see Exhibit 3). Among the southern states the rate of population growth also slowed but remained well above the northern rate. No state in the

Southern Tier showed a population decline since 1972, while five northern states—Ohio, New Jersey, New York, Pennsylvania and Rhode Island—lost population (see Exhibit 3). Though most of the population changes were due to migration, it is interesting to note that because of higher fertility rates, the Southern Tier would have grown faster than the Northern Tier even in the absence of migration between the regions.¹² With respect to the composition of population change, little data are available by way of the income level and employment characteristics (i.e., occupation, industry) of migrants.¹³

The inference one might draw from these trends is that the declining population in the North likely reduced certain servicing needs, but these reductions may have been offset by increasing concentrations of the poor, particularly in central cities.

REGIONAL DIFFERENCES IN FISCAL ACTIVITY

While this section reviews the major regional differences in quantifiable indicators of state and local fiscal activity, it should be recognized that there are also general differences in governmental structures and responsibilities between regions. In general, Southern Tier states are more likely to be state-dominated, whereas local government dominance is more likely to be found among Northern Tier states.¹⁴ Local dominance, with its heavy reliance upon state aids to localities, may create barriers to roll-backs in general expenditure levels within a logrolling political environment where legislators find it difficult to alter historical state-aid formulas.

Additionally, there appears to be greater metropolitan fiscal disparity in the North than in the South. Eleven of the fourteen cities scoring poorest on Nathan and Dommel's "hardship index" are in the Northern Tier while only Atlanta and Richmond are in the South.¹⁵ Likewise, Sacks found greater central city population densities in the North than in the South with city-suburban per capita income ratios less than one in the North but greater than one in the South.¹⁶ While the general newness of these southern cities may help explain these lesser disparities, they also may be due to greater success in annexation and consolidation in the South. For example, Marando argues that consolidation is essentially a southern regional phenomenon, and that annexation has occurred extensively throughout the United States with the exception of the northeastern region.¹⁷ With these structural differences in mind, we now turn to several empirical measures of fiscal activity.

EXHIBIT J

Population Growth: By Region For Selected Time Periods

Region	Uninterrupted Mean (Percent Increase)				1977
	1962-1967	1967-1972	1972-1975	1975-1977	
NORTHERN TIER	6.5	4.8	0.6	0.7	90,336
East North Central	6.9	3.8	0.6	0.5	41,056
Middle Atlantic:	4.7	3.3	-0.6	-0.4	37,038
New England	7.1	6.3	1.2	1.5	12,242
SOUTHERN TIER	5.4	6.2	3.8	2.2	69,158
South Atlantic	8.0	7.7	4.0	2.0	33,616
East South Central	2.1	3.2	2.9	2.2	13,836
West South Central	3.6	6.2	4.4	2.8	21,706
			Weighted Means (Percent Increase)		
NORTHERN TIER	5.6	3.4	-0.1	0.02	
East North Central	6.7	3.6	0.3	0.4	
Middle Atlantic	3.9	2.8	-0.9	-0.5	
New England	7.8	4.6	0.7	0.5	
SOUTHERN TIER	5.9	7.4	4.7	2.6	
South Atlantic	8.7	9.0	5.2	2.1	
East South Central	2.5	3.3	2.9	2.3	
West South Central	4.3	7.6	5.0	3.5	

Source: Bureau of the Census, *Current Population Reports*, Series P-25, various issues.

EXPENDITURE LEVEL AND STRUCTURE

There are important variations between the Northern and Southern Tier states in the level and functional distribution of expenditures. The northern states spend more—about 16 percent more on a per capita basis—than do the Southern Tier states (see Exhibit 4). This pattern holds for most states within the two regions. Only one Northern Tier state (Indiana) spends less than the southern mean, and only three Southern Tier states (Delaware, Maryland and Louisiana) spend above the northern mean. This relatively low expenditure level in the South, even in the midst of an increased flow of resources to that region, is important in understanding the possibilities for fiscal adjustment.

EXHIBIT 4
Expenditure And Employment Characteristics of State And Local Governments By Region In 1977

State and Region	Unweighted Regional Means					State and Local Government Employees	
	Per Capita Expenditures	Education	Welfare	Health & Hospitals	Per 10,000 Population ^a	Average Wage ^b	
NORTHERN TIER							
East North Central	1261	39.5	16.3	7.3	459	1076	
Middle Atlantic	1208	43.4	15.3	8.5	451	1112	
New England	1429	35.6	17.4	7.3	464	1159	
	1221	38.1	16.5	6.2	463	1004	
SOUTHERN TIER							
South Atlantic	1082	42.2	11.9	10.8	497	901	
East South Central	1145	42.6	10.4	10.5	514	949	
West South Central	1005	41.4	13.4	11.6	473	846	
	1033	42.3	13.3	10.6	486	860	
				Weighted Regional Means			
NORTHERN TIER							
East North Central	1342	37.8	17.0	7.9	459	1144	
Middle Atlantic	1218	42.8	15.8	8.2	447	1132	
New England	1502	34.0	18.0	8.0	470	1184	
	1268	35.8	17.3	6.8	464	1065	
SOUTHERN TIER							
South Atlantic	1062	42.4	11.3	11.2	499	912	
East South Central	1105	42.4	9.9	11.3	514	943	
West South Central	1003	41.3	13.4	11.5	472	851	
	1033	43.3	12.2	10.8	491	898	

^a Fulltime equivalent employment

^b October payroll divided by fulltime equivalent employment

Source: U.S. Bureau of the Census, *Government Finances in 1976-77, Series GF 77, 6* (Washington, D.C.: U.S. Government Printing Office, 1978); *Public Employment in 1977, Series GE 77, No. 1* (Washington, D.C.: U.S. Government Printing Office, 1978).

In terms of expenditure distribution, the southern states allocate a slightly greater share of total public resources to education. The same holds true for health and hospitals, though there is much variation among states within the two regions. But perhaps the major regional difference in expenditure structure is that the northern states spend proportionately more for public welfare. Only one northern state allocates as little to public welfare as the southern mean of 11.9 percent.

PUBLIC EMPLOYMENT AND WAGE LEVELS

On the average, there appears to be a greater level of state and local government employment, relative to population, in the South (see Exhibit 4). Nine of the sixteen states in the Southern Tier are at or above the U.S. median of 498 employees per 10,000 population while only one of the fourteen northern states is above this median. Though there are some outliers, there is not a great deal of variation among these two groups of states.

Some evidence has shown an association between the level of local government employment and the rate of population growth. Muller compares twelve growing cities and fourteen declining cities on the basis of common function¹⁸ employment per 1,000 residents. From this relatively small set of observations, he finds declining cities to have 12.1 workers per 1,000 residents as compared to 8.7 in the growing cities.¹⁹ Perhaps even more interesting is his finding that the gap widened between 1967 and 1972. No such relationship between the level of state and local employment and population growth or decline can be found among the Northern or Southern Tier states examined here.

Average public employee wages are higher in the Northern Tier by almost any standard (Exhibit 4). While per capita income is only 14 percent higher in the North, the gap in average public sector wages is over 19 percent. There are a number of possible reasons why public sector workers receive such low wages in the southern states: low productivity, the absence of strong unions, or the possibility that governments in southern states do not perform the same range of public subfunctions and hence, do not require as expensive a mix of labor skills. Another possibility is that these comparisons are not valid because of data and conceptual problems.

There are many problems inherent in a comparison of average wage levels across states. The estimates presented in Exhibit 4 are of average payroll per full-time equivalent employee. These data miss

the wide variation in pay levels by class of employees (including full-versus part-time) and mix nine-month employees (teachers) with twelve-month employees. There are also inadequate data to measure interstate variation in the level of pensions and fringe benefits.²⁰ However, since many benefits are tied to wage levels (e.g., pensions and social security contributions) it is possible that the regional differences in total compensation are greater than those in average wages. Finally, even if the payroll per full-time equivalent employee is a reasonable benchmark for comparison, there remains the problem of cost-of-living differentials which may tend to change this pattern of interstate differences. Generally higher costs-of-living in the North would suggest that real differences in compensation are not as great as indicated in Exhibit 4.

If all of these caveats are disregarded, or if the data problems somehow cancel out, the greater average wage in the Northern Tier suggests that a substantial part of the state and local expenditure difference in the northern and southern states is due to public employee compensation differences. If it is further accepted that differentials in average wages across regions are not the result of public employee productivity differentials, then the higher level of per capita spending in the northern states substantially overstates the difference in the quality of services provided between the two regions. Muller has studied wage variations among local governments using his growth/decline dichotomy, and for his sample, has determined that average wage levels tend to be higher in older and declining cities. His plausible explanation of this difference is the greater ability of municipal employee associations in older cities to press for more favorable contract terms, coupled with cost-of-living differences and perhaps a necessary premium for what is perceived as a lower quality of life in older, more congested cities of the Northeast and industrial Midwest.

SOURCES OF FINANCE

Three aspects of the financing of state and local government expenditures are important in describing regional variations in fiscal systems: reliance on debt, the structure of taxes raised and the level of revenue effort exerted. With respect to borrowing, the level of general obligation debt in the Northern Tier is higher on both a per capita basis and as a percent of personal income than in the South though large variations do exist (see Exhibit 5). The level of debt in the east northcentral states is lower than that in any

EXIBRt S

Debt Levels: By Region For 1977

State and Region	Unweighted Means	
	Per Capita	Long Term Debt Outstanding As a Percent of Personal Income
NORTHERN TIER	1053	14.9
East North Central	744	10.2
Middle Atlantic	1500	20.1
New England	1087	16.2
SOUTHERN TIER	867	13.7
South Atlantic	937	13.9
East South Central	821	14.6
West South Central	771	12.5
	Weighted Means	
NORTHERN TIER	1193	16.2
East North Central	767	10.4
Middle Atlantic	1651	22.2
New England	1214	16.9
SOUTHERN TIER	798	12.7
South Atlantic	777	12.0
East South Central	827	14.6
West South Central	814	12.6

Source: U.S. Bureau of the Census, *Government Finances in 1976-77*, Series GF77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

southern subregion, attesting again to the problems with inferences from regional averages. The higher level of per capita debt suggests a greater fixed commitment for debt service in the annual budget of the states. In addition debt contracted to build an infrastructure to support a growing economic base may be less burdensome than that contracted primarily in response to fiscal difficulties.

In terms of revenue structure there are distinct and important differences between the regions. Southern states are more heavily reliant on sales taxes and northern states on property taxes (see Exhibit 6). This difference is largely a reflection of the division of financial responsibility for services between the state and local level. Where local government involvement in the delivery of services is strong, there tends to be much heavier use of the property

EXHIBIT 6

Revenue Structure: By Region For 1977

State and Region	Unweighted Means				Federal Aid as a Percent of Total General Revenue
	Percent of Own Source Revenues Raised From				
	Property Taxes	Sales Taxes	Income Taxes	Per Capita Federal Aid	
NORTHERN TIER	33.1	13.4	17.3	\$291	22.2
East North Central	29.2	16.5	19.3	246	19.8
Middle North Atlantic	30.9	13.1	20.9	299	20.3
New England	37.4	11.0	13.9	325	25.1
SOUTHERN TIER	17.2	18.5	14.9	277	25.1
South Atlantic	19.4	15.8	19.1	279	24.1
East South Central	14.3	23.8	12.8	281	27.3
West South Central	17.8	18.8	8.8	271	25.1
				Weighted Means	
NORTHERN TIER	30.9	14.3	20.7	\$283	20.3
East North Central	29.5	16.2	19.1	248	20.1
Middle North Atlantic	29.7	13.6	23.2	314	20.0
New England	39.8	10.5	17.2	307	22.4
SOUTHERN TIER	20.4	18.4	11.9	260	23.8
South Atlantic	21.6	16.3	16.6	261	23.2
East South Central	14.4	23.8	12.7	279	27.1
West South Central	21.9	18.8	4.1	246	22.7

Source: U.S. Bureau of the Census, *Government Finances in 1976-77*, Series GF77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

tax. But, as noted above, the southern states tend to be more state government dominant, hence, there is heavier reliance on non-property taxation. This difference is of considerable importance to the potential response of the fisc to growth or decline in the economic base. In the South, with its heavy reliance on sales taxes, a combination of real growth and inflation will automatically generate substantial new revenues for expansion of the public sector. In the Northern Tier, where property taxation dominates, even the tax base growth generated by inflationary increase in income is unlikely to be fully or easily captured.²¹ In terms of the controversial issue of the regional distribution of federal aid, both regions receive about

the same per capita amount, but southern states—because of their lower level of fiscal activity—are more dependent on federal aid as a revenue source.

FISCAL RESPONSES TO DIFFERENTIAL REGIONAL GROWTH

The observed differences in relative economic growth between the North and South and conditions of the fisc in the same regions provide the opportunity for a more detailed examination of their linkage. Here we will consider both expenditure and revenue response to these changes with special interest on the years 1972-77. The period 1972-75 was characterized by nationwide inflation culminating in the general recession of 1974-75. While the recovery of 1975-77 was sustained, it has apparently seen a continuation of the general relative decline of the industrial Northeast and Midwest. Coming in the wake of the well-publicized New York City crisis and the apparent cutback mood of many taxpayers, it is interesting to see whether the general trends in fiscal actions have been reversed.

EXPENDITURE GROWTH

Given the relatively slower growth in financial capacity in the northern states, a slower growth in fiscal activity might have been expected. In fact, expenditure growth in the Northern Tier states was not considerably different from that in the southern states through 1975 (see Exhibit 7). Expenditures grew at a rate roughly 20 to 30 percent faster than personal income in both regions in the three time periods considered, except for the 1967-72 period, when per capita expenditures in the Northern Tier grew 93 percent faster than per capita income (see Exhibit 8). Even in the 1972-75 period, when total employment increased by about 7 percent in the South and less than 1 percent in the North, per capita expenditures grew by about the same percentage in both regions. From this evidence, one might conclude that there was not a strong relationship between the growth in public expenditures in the two regions and the capacity to finance that growth.

Some evidence of greater fiscal restraint in both regions shows up in the recovery period (1975-77) when the growth in expenditures fell below that of the growth in income. One plausible explanation of this lagged and long-overdue response to slow growing economic activity is that the New York City financial collapse and the disasters in several other cities finally drove home the reality that the public sector, especially in many Northern Tier states, could

EXHIBIT 7

Indicators Of Fiscal Expansion: By Region

Region	Means Percent Increases in Per Capita General Expenditures ^a			
	1962-1967	1967-1972	1972-1975	1975-1977
NORTHERN TIER	42.8	73.4	34.5	17.2
East North Central	41.0	67.8	34.5	18.9
Middle Atlantic	47.8	91.4	34.6	15.7
New England	41.8	69.1	34.4	16.7
SOUTHERN TIER	51.8	64.5	38.0	18.6
South Atlantic	55.2	71.0	40.9	16.2
East South Central	47.0	64.5	36.5	19.6
West South Central	49.6	51.5	33.8	22.5

^a As noted above, we are interested in state level changes so utilize unweighted means in this and the remaining tables.

Source: U.S. Bureau of the Census, *Governmental Finances in 1976-1977* (1961-62, 1966-67, 1971-72, 1974-75) Series GF77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

EXHIBIT 8

Per Capita Income Elasticity^a Of State and Local Government
Expenditures: By Region

	Northern Tier	Southern Tier
1962-1967	1.29	1.27
1967-1972	1.93	1.34
1972-1975	1.21	1.17
1975-1977	0.86	0.89

^aPercent increase in per capita expenditure divided by percent increase in per capita income.

Source: Computed from Exhibits 1 and 7.

no longer sustain itself. **Reduction**, cutback and deferrals became the centerpiece of state and local government fiscal policies.

If the growth or decline in taxable capacity does not explain the growth of the state and local government sector through 1975, then attention might be turned to two other possible explanations: (a) on the demand side, growing requirements for services resulted primarily in increased number of public employees and an upward pressure on expenditures, (b) on the supply side, increased public employee compensation resulted from union pressures and inflation and forced up expenditure levels. Either explanation would be consistent with the observed absence of a consistent, long-term relationship between economic base and public expenditure growth.

There is a wealth of literature on expenditure determinants which attests to the difficulties of separating demand from supply influences to explain expenditure growth and variations.² Those difficulties notwithstanding, we proxy the growth in service demand here with three variables: population growth, increase in AFDC recipients and increase in primary and secondary school enrollments. To the extent these factors increased over the four periods studied, an increase in state and local government employment levels might have been expected. The number of AFDC recipients increased at a greater rate in the North than in the South during 1962-75, while the reverse was true for total increases in population (see *Exhibit 9*). During the 1975-77 recovery the number of AFDC recipients declined more rapidly in the Southern Tier, hence, the gap in the proportion of low income population has been increasing. This would imply a stronger pressure on public expenditure levels in the northern states.

Primary and secondary school enrollments increased at a more rapid rate in the North over the 1962-72 period and have declined at a more rapid rate since 1972. From these aggregates, one might again infer an increasing concentration of high cost citizens in the North, and a considerably greater demand for increased school personnel—at least during the 1962-72 period. Though these results do not appear to provide strong support for a demand thesis, it is important to emphasize the very great diversity across states which is disguised in such an aggregate analysis. This diversity is particularly great in the case of the rate of increase in AFDC recipients.

During the 1975-77 period, the Northern Tier states have suffered a population stagnation and a reduction in enrollments which implies reduced expenditure demands, but an increase in welfare recipients and in the proportion of poor, suggesting increased expenditure

EXHIBIT 9

Indicators of Growth In Servicing Requirements

	Percent Increases							
	1962-1967		1967-1972		1972-1975		1975-1977	
	North	South	North	South	North	South	North	South
AFDC	44.1	33.4	152.3	115.6	12.8	4.7	-5.1	-8.2
Population	6.5	5.4	4.8	6.2	0.6	3.8	0.7	2.2
Enrollment	15.2	9.4	9.1	3.3	-2.4	-1.7	-1.5	-1.5
Public Employees	25.0	30.9	20.3	24.3	8.8	13.1	3.0	6.7
Per Capita Expenditures	42.8	51.8	73.4	64.5	34.5	38.0	17.2	18.6

Sources: Computed from Exhibits 3, 7 and U.S. Bureau of the Census, *Statistical Abstract of the United States: 1978* (1963, 1968, 1973, 1977), (Washington, D.C.: U.S. Government Printing Office, 1978); Bureau of the Census, *Public Employment in 1977* (1962, 1967, 1972, 1975), Series GE77, 5 (Washington, D.C.: U.S. Government Printing Office, 1978).

requirements. The situation in the South was almost exactly the reverse. As may be seen in Exhibit 9, state and local governments in the South increased their fiscal activity considerably more in terms of employment and only slightly more in terms of expenditures. The 1975-77 expenditure and employment growth rate differences would not appear to be explained by changes in the demand for services.

These results suggest that the explanations for expenditure increases in the two regions are at least partially to be found on the supply side, i.e., in terms of increases in the level of public employee compensation. As may be seen in Exhibit 10, the percentage increase in payroll per employee was higher in the northern than in the southern states over the 1962-72 period—this despite the fact that the capacity to finance such increases in northern states was declining. By the 1972-75 period, the rate of increase in average wages in the North had fallen below that in the South. This pattern continued for the 1975-77 period. The rates of increases in expenditures closely parallel increases in public employee compensation rates.

REVENUE GROWTH

According to the scenario above, the fisc in the northern states has expanded at about the same rate as that in the southern states, despite considerable differences in the growth of their respective economic and demographic bases. As a consequence, revenue effort

EXHIBIT 10

Growth In State And Local Government Employment Per Capita And Public Employee Wages: By Region

Region	Percent Changes							
	Employment Per 10,000 Population				Payroll Per Employee			
	1962-1967	1967-1972	1972-1975	1975-1977	1962-1967	1967-1972	1972-1975	1975-1977
NORTHERN TIER	17.6	14.9	8.1	2.2	28.8	38.3	21.8	12.4
East North Central	17.0	13.5	7.1	2.1	24.4	39.2	22.4	12.9
Middle Atlantic	24.1	14.1	7.9	0.6	28.8	40.1	24.0	10.8
New England	14.7	16.4	9.0	3.2	30.1	36.7	20.1	12.8
SOUTHERN TIER	24.2	17.1	8.9	4.3	27.2	34.3	26.9	14.8
South Atlantic	24.1	19.3	9.2	5.1	28.5	36.5	24.2	15.2
East South Central	23.9	17.5	7.7	4.1	27.0	34.1	29.2	14.4
West South Central	24.9	12.4	9.7	3.1	24.8	30.1	29.9	14.5

Source: U.S. Bureau of the Census, *Public Employment in 1977* (1962, 1967, 1972, 1975), Series GE77, S (Washington, D.C.: Government Printing Office, 1978).

in the Northern Tier states must have increased more rapidly, or the flow of federal aid to the northern states must have increased. The reality of an increase in revenue effort is borne out by a recent ACIR publication which attempts to classify states with reference to both the level and direction of tax effort.²³ Of the states classified as having high and rising levels of tax efforts, nine are in the Northern Tier and three are in the South.

A comparison of the growth in own source revenues to the growth in personal income shows a greater revenue-income elasticity²⁴ in the North in the 1967-72 period (see Exhibit 11). In the other three periods, however, these crude elasticities were not substantially different.

The presentation in Exhibit 12 disaggregates increases in state and local government revenue by source of increase. Southern states financed expenditure increases through the use of sales and income taxes while in the North the increments were derived relatively more from property taxes. Also noteworthy within the 1972-75 period was the substantial increase in the reliance on federal grants to finance expenditure increments in the Northern Tier.

This pattern of revenue increase may reflect the greater automatic responsiveness of tax systems in the South which rely more on sales and less on property taxes. While detailed comparisons are not readily available, it would seem reasonable to assume that relatively more of the revenue increase in the North was the result of discretionary changes in the tax system. Data for 1975-76 suggest that the rate and base changes in the income and sales taxes occurred with greater frequency in the North, especially among the harder pressed states.²⁵

FISCAL ADJUSTMENTS TO DECLINE

Certain of the data above, e.g., Exhibit 8, suggest that the state and local sector has begun to cut back on their levels of activity. While it would be desirable to carry out an in-depth analysis of recent fiscal retrenchment, time and data constraints have precluded a full analysis of recent fiscal actions in the declining states. Nevertheless, it may be useful to consider briefly recent fiscal changes within New York State as possibly indicative of behavior in other declining states.²⁶ In the 1975-77 period full-time equivalent state and local employment in New York State declined by 5.2 percent while it grew by 3.8 percent in the rest of the nation.²⁷ Likewise, average public employee compensation grew by 10.1 percent in New York compared to 12.3 percent in the remainder of the nation during the same

EXHIBIT 11

Overall Responsiveness of Revenue To Economic Activity:

Change	Northern Tier				Southern Tier			
	1962-1967	1967-1972	1972-1975	1975-1977	1962-1967	1967-1972	1972-1975	1975-1977
Percent Increase in Revenues from Own Sources	46.6	84.8	28.9	21.4	56.8	75.5	39.7	21.8
Percent Increase in Personal Income	41.8	44.6	29.3	20.9	48.3	57.6	37.6	23.5
Own Source Revenue-Income Elasticity*	1.11	1.90	0.99	1.02	1.18	1.31	1.06	0.97
Percent Increase in Total Employment	16.7	7.6	1.9	6.4	24.0	18.7	7.2	7.5
Percent Increase in Population	6.5	4.8	0.6	0.7	5.4	6.2	3.8	2.2

*Percent Increase in Revenues from Own Sources divided by Percent Increase in Personal Income.

Source: Computed from sources used in Exhibits 1, 2, 3, and U.S. Bureau of the Census, *Government Finances in 1976-77* (1971-62, 1966-67, 1971-72, 1974-75), Series GF77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

EXHIBIT J1

Increases in General Revenues of State and Local Governments

Region	1962-1967			1967-1972		
	Percent Increase due to			Percent Increase due to		
	Sales & Income Taxes	Property Taxes	Federal Aid	Sales & Income Taxes	Property Taxes	Federal Aid
NORTHERN TIER	21.0	22.6	19.5	22.6	25.5	19.5
East North Central	25.0	21.8	17.6	25.5	23.9	17.8
Middle Atlantic	24.4	22.8	18.6	24.9	24.0	20.4
New England	15.9	23.2	21.4	19.1	27.6	20.5
SOUTHERN TIER	19.3	14.2	26.6	25.4	11.0	23.5
South Atlantic	21.5	15.9	23.1	26.1	12.9	22.2
East South Central	21.0	9.5	31.1	27.1	7.9	26.0
West South Central	13.5	15.3	29.0	22.3	10.5	23.4

Region	1972-1975			1975-1977		
	Percent Increase due to			Percent Increase due to		
	Sales & Income Taxes	Property Taxes	Federal Aid	Sales & Income Taxes	Property Taxes	Federal Aid
NORTHERN TIER	33.0	21.3	31.0	31.5	18.2	29.8
East North Central	40.4	13.3	26.0	38.7	15.5	28.6
Middle Atlantic	34.8	20.4	26.9	36.9	19.5	27.0
New England	25.8	28.4	37.2	22.9	19.7	32.1
SOUTHERN TIER	31.1	10.5	28.5	28.7	12.6	29.2
South Atlantic	32.7	11.7	29.0	28.8	14.5	29.2
East South Central	31.2	8.3	28.5	33.3	9.6	30.5
West South Central	27.9	10.2	27.7	23.7	12.1	27.7

Source: U.S. Bureau of the Census, *Government Finances in 1976-1977* (1961-62, 1966-67, 1971-72, 1974-75) Series GF77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

1975-77 time period.²⁸ This slower growth in compensation was accomplished, at least in part, through no scheduled wage increases at the state level during FY 1975 and FY 1977. This wage freeze followed a period of compensation growth that was greater than the rest of the nation in spite of the obvious long-term relative decline in the economic base of New York State.

The slowdown in the fiscal activity at the state level in New York is indicated by its growth rates in expenditures within state agencies of 7.5 percent (FYJ 975 to FYI 976) and 2.3 percent (FYJ 976 to FY 1977).²⁹ These growth rates were considerably less than the double-digit rates in the several preceding years.

Since grants to localities within New York constitute approximately 60 percent of its consolidated expenditures, it is also interesting to note that the growth in these grants has slowed considerably. Between FYI 976 and FYI 977, the growth was only 4.4 percent. This is extremely likely to have constraining effects upon the lower levels of government in the state.

On the revenue side there has been increasing pressure to provide tax relief to both individuals and business. Relatively large tax cuts that show up in the 1978 data are *indicative* of these efforts. While New York *still* has a distance to go in bringing these tax levels closer to the median *for the rest of the nation* (which, itself, has not been immune to such tax cut pressures), it does indicate a response to the overall decline in the economic base.

We did attempt to carry out several correlations between *different* measures of fiscal activity in the states analyzed here with the three measures of economic base. If there has been a reasonably widespread response to economic decline since 1975, one *might* expect that for the 1972-75 period correlations between growth in economic base and fiscal *activity* would be significantly smaller than correlations between the same set of variables for the 1975-77 period. The results *did* not, however, indicate such a response. While there were some *minor* alterations in these correlations, there were no strong indications that, *indeed*, the overall pattern of relationships between economic base and fiscal activity had altered greatly between the two periods. In part this is likely due to the heterogeneity of activities in the several states as well as to the fact that the growing states *in* the South also have held back their growth in expenditures to a rate less than the rate of increase in personal incomes.

IMPLICATIONS FOR PUBLIC POLICY

The basic dilemma faced by several of the declining states in the Northeast is that their public sector has become overdeveloped relative to financial capacity. As a result, tax burdens are thought to be too high, there is little additional public money to be devoted to what are thought to be serious *city* fiscal problems, fixed debt

and pension commitment; an: high, union compensation demands will likely parallel cost-of-living increments and there seems to be no short-term reversal of existing economic trends. To be sure, this pattern does not fit all state and local governments in the northeastern and midwestern regions and likely describes some Southern metropolitan area governments. But the pattern tends to hold for many governments in the Northern Tier and tends not to hold for most in the Southern group.

While there may have been some recent responses to these trends, there still are policy issues associated with the retrenchment period. This is especially true for the income distributional implications of the response taken in the declining states. The strategies for dealing with these fiscal problems would seem to be of four types: reversal of the economic decline, both in the central cities and the region; assistance during the transition period; strengthening of the fiscal position of the poorest local jurisdictions through a grants program and federal welfare assumption; and fiscal planning in the declining region to bring about a better balance between the size of the public sector and the size of the economic base available to support that public sector.

An alternative strategy would be to take no action to correct the fiscal problems of governments in the declining region. This argument would hold that market forces are already underway which are correcting regional disparities in income, employment and population; and that the regional disparities in public service levels also should narrow. Eventually, as the resource base continues to grow slowly, the public sector in the Northeast also will grow slowly. The problem with this line of reasoning is that shrinkage in the public sector in the Northeast will likely mean a cutting of service levels in those areas where expenditures are greatest—health, education and welfare. This may imply that much of the painful burden of the transition to a lower level of public services will be borne by lower income residents in the declining regions.

Given these strategies, there would seem to be five policy directions open: cut services, raise taxes, increase productivity, increase federal assistance, or improve the local economy. The first three are options for state and local government action while the last two require federal action.

STATE AND LOCAL GOVERNMENT OPTIONS

Increased productivity in the public sector is a favorite policy recommendation in that it resolves fiscal problems without requiring

governments either to raise taxes or cut services. While there is clearly room for improved management at the *local* government level, large savings (relative to projected deficits) from increased productivity in the public sector is not a realistic expectation.³⁰

Revenues might be increased through further increase *in* the effective tax rate. The argument *against this* is the possible retarding effect on economic development given that state and local government revenue effort in many of the northeastern and mid-western regions *is* already high relative *to* the South.

Service level reductions are the most likely route. While there will continue to be absolute cutbacks in some areas and reductions in the scope of some services, this will mostly take the form of services not expanding to accommodate increasing needs, and increasing unit cost of provision. This does not mean that expenditures will decline. Increasing wages and benefits can drive up expenditures by a significant amount, without *raising* service levels.

FEDERAL OPTIONS

The federal government could increase the flow of *aid* to the state to prop up the public sector during this period of decline. A program of increased aid during a transition period in which the state sought to balance its long-term spending expectations with *its* likely future economic growth would be a sane program. On the other hand, federal grants to maintain an overdeveloped public sector *would* only prolong the period of continuing annual fiscal crisis.

There are a number of federal policies that might be undertaken during the fiscal adjustment period—that period when the public sector in the North *is* moving to a lower level which *is* commensurate with its capacity to finance. One element of such fiscal reform would be a higher level of federal financing of public welfare. The removal of a substantial share of welfare costs from the declining states in the Northeast would free substantial resources for other uses.

A similar position might be taken *with* respect to regional development subsidies. Such subsidies would prolong the period of transition to a lower, but stable level of activity. The longer the period of this transition, the greater the uncertainty with respect to business investment and the greater the chance for a snowballing effect of the decline. Yet, if regional subsidies worked, they could have a strong positive effect on the finances of governments in the declining region. There are two caveats, however, even to the potentially favorable governmental finance effects. One is that the fiscal problems in the declining region are very much the fiscal problems of the central

cities in those regions. Historically, these cities have not always shared in the economic growth of the region, and therefore it is not clear how much their fiscal positions would improve in the event the regional shifts slowed. A second and related caveat, is that the states in the declining region tend to be more heavily dependent on local property taxation which may make it difficult to fully capture increases in regional income and employment in the public sector. But the most important issue with respect to regional subsidies remains whether or not they induce any *net* improvement in private sector economic activity.

The fiscal problems of many Northern Tier states is that their public sectors are overdeveloped. The states' resource bases will no longer support the high level of public services provided in the state, unless tax rates are continuously increased. While shifts in population and economic activity are tending toward equalizing income across the country, the northern states have retained dominance in their relative national role in state and local fiscal activity. This can no longer be done. A downward transition must be recognized, and policy should center on selecting priorities in the adjustment of public service levels. With appropriate federal aid, this need not mean severe service cutbacks in all areas, but rather a slow growth in services while the rest of the nation catches up.

NOTES

• Larry Deboer and Linda Svetlik, graduate assistants in the Metropolitan Studies Program, compiled much of the data for this analysis. This paper is one result of a larger research project financed by the National Science Foundation (APR77-15730). The current paper extends and updates portions of the analysis contained in Bahl's "The Effects of Regional Shifts in Population and Economic Activity on the Finances of State and Local Governments: Implications for Public Policy," presented at the September, 1977 conference, *National Policy Towards Regional Change*, held at the University of Texas and revised in a paper prepared for the Southern Regional Growth Policies Board as "Regional Shifts in Economic Activity and Government Finances in Growing and Declining States."

1. See, for examples, William H Miernyk, "The Northeast Isn't What it Used to Be," in *Balanced Growth for the Northeast* (New York State Senate, 1975); Lawrence K. Lynch and E. Evan Brunson, "Comparative Growth and Structures: The South and the Nation," in *The Economics of Southern Growth*, edited by E. Blaine Liner and Lawrence K. Lynch (Durham: The Southern Growth Policies Board, 1977): 11-34; and Roy Bahl and David Puryear, *Economic Problems of a Mature Economy*, Occasional Paper No. 27 (Metropolitan Studies Program, The Maxwell School, Syracuse University, April 1976).

2. See, for example, George E. Peterson, "Finance," in *The Urban Predicament*, ed. William Gorham and Nathan Glazer (The Urban Institute: Washington, D.C., 1976); and Roy Bahl, Bernard Jump, Jr. and Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions," in *The Fiscal Outlook for Cities* (Syracuse, New York: Syracuse University Press, 1978).
3. Notable exceptions here are Richard P. Nathan and Paul R. Dommel, who in "Understanding Central City Hardship," (*Political Science Quarterly* Vol. 21, No. 1 (Spring 1976)), argue a relationship between regional shifts and urban fiscal problems; Tom Muller, who argues that population decline is a reasonable proxy for fiscal distress in "The Declining and Growing Metropolis-A Fiscal Comparison," in *Post-Industrial America: Metropolitan Decline and Regional Job Shifts*, eds. George Stemlieb and James W. Hughes (New Brunswick, New Jersey: The Center for Urban Policy Research, Rutgers University, 1975): 197-220; and Roy Bahl, Alan Campbell and David Greytak, *Taxes, Expenditures and the Economic Base: Case Study of New York City* (New York, New York: Praeger Publishers, 1974).
4. In comparing the performance of the public and private sectors, between regions, there is the problem of selecting the appropriate "average". Assuming, as we do, that the arithmetic mean is a better measure of central tendency than is the median, there remains the choice of comparing the average value for the entire region and the average state performance. For example, in the case of per capita expenditures, the former

would be $\frac{\sum_{i=1}^N E_i}{N}$ and the latter, $\frac{\sum_{i=J}^N P_i}{N}$ where E_i and P_i represent

expenditures and population respectively both for the i th state among N in the region. The latter, the average state performance measure, has the disadvantage of giving the same weight to all states in determining the regional average and may be a misleading indicator if there are wide variations in population size within the same region. Nevertheless, our interest in this chapter is with fiscal jurisdictions, hence in the text we usually discuss the "average state" measure since it is more appropriate for our purposes; however both weighted and unweighted means are provided for the measures of economic base and fiscal activity.

5. Excluding the District of Columbia.
6. The states included in each region are enumerated in the first exhibit. The remaining exhibits report results only for the two tiers and their constituent regions. For the state-by-state breakdowns see Bahl, "Regional Shifts in Economic Activity and Government Finances in Growing and Declining States." Some authors have followed a procedure of excluding certain states in these regions on grounds that they are qualitatively different in terms of economic base. For example, Jusenius and Ledebur exclude Maine, Vermont and New Hampshire because the industrial bases of these states differ in kind and degree from the rest of the region. See C.L. Jusenius and L.C. Ledebur, *A Myth in the Making: The Southern Economic Challenge and the Northern Economic Decline* (Economic

- Development Administration, U.S. Department of Commerce: Washington, D.C.: November 1976), p. 2.
7. Jusenius and Ledebur, *A Myth in the Making*, pp. 3-5.
 8. Michael R. Greenberg and Nicholas J. Valente, "Recent Economic Trends in the Major Northeastern Metropolises" in *Post-Industrial America: Metropolitan Decline and Inner-City Job Shifts*, George Stemlieb and James Hughes, eds. (New Brunswick: The Center for Urban Policy Research, Rutgers University, 1975), pp. 77-100.
 9. Daniel Garnick, "The Northeast States in the Context of the Nation," in *The Declining Northeast*, pp. 145-159.
 10. Congress of the United States, Congressional Budget Office, "Troubled Economies and the Distribution of Federal Dollars," (Washington, D.C.: U.S. Government Printing Office, August, 1977).
 11. Bernard Weinstein and Robert Firestone, *Regional Growth and Decline in the United States* (New York: Praeger Publishers, 1978).
 12. Jusenius and Ledebur, *A Myth in the Making*, pp. 1-5.
 13. For some evidence, see Julie DaVanza, "U.S. Internal Migration: Who Moves and Why," in *Consequences of Changing U.S. Population*, Hearings before the Select Committee on Population, June 6, 1978, pp. 188-201.
 14. D. Puryear, R. Bahl and S. Sacks, *Federal Grants: Their Effect on State and Local Expenditures, Employment Levels, Wage Rates* (Washington, D.C.: Advisory Commission on Intergovernmental Relations, February, 1977), Chapter 2.
 15. Richard P. Nathan and Paul R. Dommel, "The Strong Sunbelt Cities and the Weak Cold Belt Cities," Hearings before the Subcommittee on the City, of the House Committee on Banking, Finance and Urban Affairs, *Toward A National Urban Policy*, 95th Congress (Washington, D.C.: U.S. Government Printing Office, 1977), pp. 19-26; and "Understanding Central City Hardship," *Political Science Quarterly*, Vol. 21, No. 1 (Spring 1976), pp. 61-62.
 16. S. Sacks, *Trends in Metropolitan America*, Tables 4 and 10.
 17. Vincent Marando, "The Politics of Metropolitan Reform," in *State and Local Government: The Political Economy of Reform*, Alan Campbell and Roy Bahl, eds. (New York: The Free Press, 1976), pp. 24-49.
 18. Common municipal functions exclude education, hospitals and other variable functions as defined by the Census.
 19. Muller, "The Declining and Growing Metropolis-A Preliminary Comparison," pp. 203-206.
 20. For a good discussion of these measurement problems, see Bernard Jump, Jr., "Public Employment, Collective Bargaining and Employee Wages and Pensions," in *State and Local Government Finance and Fiscal Administration* (Municipal Finance Office Association, Washington, D.C., 1978), pp. 74-85.
 21. David Greytak and Bernard Jump, Jr., "Inflation and Local Government Expenditures and Revenues: Method and Case Studies," *Public Administration Quarterly*,

22. R.G. Ehrenberg, "The Demand for State and Local Government Employees," *American Economic Review* 63, No. 3 (June 1973): 366-79; T.E. Borcharding and R.T. Deacon, "The Demand for Services of Non-Federal Governments," *American Economic Review* 62, No. 5 (December 1972): 891-901.
23. Advisory Commission on Intergovernmental Relations, *Measuring the Fiscal Blood Pressure of the States* (Washington, D.C.: U.S. Government Printing Office, 1977).
24. Revenue-income elasticity is the percent increase in revenue divided by the percent increase in personal income. A more rigorous measure of the revenue-income elasticity would require adjusting the revenue data levels for discretionary changes in both the rates or bases of the tax systems within the several states.
25. Advisory Commission on Intergovernmental Relations, *Sitnijic'ant Features of Fiscal Federalism*, 1976-77 Edition, Vol. II (Washington, D.C.: ACIR): Tables 34-37.
26. More specific analysis of the New York case is found in Roy Bahl, "Fiscal Retrenchment in a Declining State: The New York Case" paper presented to a HUD sponsored UCSB Conference on "Fiscal Adjustment", December 14-15, 1978, University of California, Santa Barbara, California.
27. U.S. Bureau of the Census, Public Employment in 1975, 1976, 1977. We recognize that the special problems of New York City may unduly distract these changes; nevertheless, the change is considerable, especially in light of the long-term trends within New York State.
28. U.S. Bureau of the Census, Governmental Finances in 1974-1975, 1975-1976, 1976-1977.
29. All data from Comptroller of the State of New York, *Annual Report*, 1977.
30. A review of the issues surrounding productivity measurement and improvement is present in Jerome Burkhead and John I. Ross, *Productivity in the Local Government Sector*, (Washington, D.C.: Urban and Company, 1974).