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STATE AND LOCAL FINANCE: ADJUSTMENTS IN A CHANGING ECONOMY

STUDIES

PREPARED FOR THE USE OF THE

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LETTERS OF TRANSMITTAL

DECEMBER 16, 1980.

To the Members of the Joint Economic Committee:

Transmitted herewith is a staff study, printed separately, and technical papers which together form Volume 7 of the Special Study on Economic Change (SSEC).

Volume 7 is entitled "State and Local Finance: Adjustments in a Changing Economy" and is one of 10 areas on different aspects of the economy published by the SSEC. The SSEC was initiated in 1978 under the direction of the former Chairman of the Joint Economic Committee, Representative Richard Bolling, then Vice Chairman Senator Hubert H. Humphrey, and the former Ranking Minority Member, Senator Jacob K. Javits. It is intended to identify major changes in the economy and to analyze their implications for policymakers. The successful completion of this Study will, I believe, help provide an economic agenda for the United States for the decade of the 1980's.

The views expressed in the technical papers are exclusively those of the authors and do not necessarily represent the views of the Joint Economic Committee or of individual members. The staff study was approved by the Chairman's Special Study Review Committee formed by the Chairman, Representative Bolling, Ranking Minority Member Representative Clarence J. Brown, and Senator Javits.

Sincerely,

LLOYD BENTSEN,
Chairman, Joint Economic Committee.

DECEMBER 12, 1980.

Hon. LLOYD BENTSEN,
Chairman, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith is a staff study, printed separately, and technical papers entitled "State and Local Finance: Adjustments in a Changing Economy," which constitute Volume 7 of the Special Study on Economic Change (SSEC).

The SSEC was initiated under the leadership of former Chairman of the Joint Economic Committee, Representative Richard Bolling, Vice Chairman Senator Hubert H. Humphrey, and former Ranking Minority Member, Senator Jacob K. Javits. The Study is divided into 10 substantive areas, which together chart major changes in the economy and analyze their implications for policymakers. Volume 7

provides a national overview of urban and regional issues, in light of the paramount goal of U.S. economic revitalization.

One of the major economic changes to emerge in the United States over the past decade is the maturing of the Nation's older, Northeast industrial belt and the rapid growth of industrial development in other parts of the country. This study establishes the links between the financial problems of State and local governments, urban poverty, and urban/regional economic development, and defines a realistic set of the key urban and regional policy choices the Nation faces.

It should be understood that the views expressed in the technical papers are exclusively those of the authors and do not necessarily represent the views of the Joint Economic Committee o of individual members. The staff study was approved by the Chairman's Special Study Review Committee formed by the Chairman, Representative Bolling, Ranking Minority Member Representative Clarence J. Brown, and Senator Javits.

Sincerely,

JOHN M. ALBERTINE,
Executive Director, Joint Economic Committee.

CONTENTS

STATE AND LOCAL GOVERNMENT FINANCES AND THE CHANGING NATIONAL ECONOMY

By Roy Bahl*

CONTENTS

I. Introduction

The United States economy and the composition of the national population have undergone dramatic changes during the past decade. Employment shifts from the more affluent Northeast and industrial Midwest to the Southeast and Southwest have eliminated much of the interstate variation in per capita income. National income growth has been unstable with three recessions—one more serious than the other two—and a prolonged period of price inflation, the growth rate in real GNP is down and the relative costs of housing and energy are up. The rate of national population growth has slowed, the age distribution is changing toward fewer school aged children and more elderly, and the most rapidly growing counties in the country are outside metropolitan areas. But perhaps the most significant trend is a change that did not occur. Despite wars on poverty, new frontiers and model cities, the plight of the urban poor remains intolerable.

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Some analysts would see this package of changes as having exacerbated fiscal problems of State and local governments.[1] Regional shifts may reduce fiscal capacity far more than they reduce public expenditure demands in declining states and the pressures from population and income growth lead to fiscal adjustment problems in the growing states. Recession slowed the revenue growth of some State and local governments, compromised their budgetary position, and brought about an increased dependence on Federal assistance. Particularly central city governments in the older regions were hurt by the business cycle as they were hit hardest by the recessions and benefited least from the recoveries. While regional shifts and recession were dampening revenue growth, especially in the declining regions, inflation was raising the cost of providing even a constant level of public services. Demographic changes may also have contributed to the revenue-expenditure imbalance of State and local governments. A growing concentration of the elderly likely increases expenditure requirements by more than it raises the taxpaying capacity of a local government and declining enrollments are not often accompanied by declining school budgets. Certainly the rapid population increases in the growing regions have pushed up expenditure requirements, especially in cases where substantial development of the basic infrastructure was required. This line of reasoning would lead one toward a conclusion that national economic and demographic changes have led to a deteriorating financial position for at least some State and local governments.

Others would argue that these national changes have not induced State and local government fiscal problems of a permanent sort. The temporary setbacks due to recession have been more than offset by real economic growth, economic recovery, the buoyancy of State and local government taxes and Federal aid flows, and a process of urban revitalization which is popularly referred to as *gentrification*. There is some evidence to support this position. The State and local government sector developed a substantial surplus by 1978 and tax reductions have been fairly common during the past two years. Moreover, popular sentiment would seem to be on the side of the view that State and local budgets are more healthy than pressed—the current movements to reduce taxes and limit government expenditures would seem less in line with Galbraith's fear of too many tailfins than with Jarvis' implication that there are too few. Even the fiscal crises in New York City and Cleveland were labelled by some as unique, and due mostly to financial mismanagement and politics. One observer has gone so far as to declare that the urban crisis is over.[2]

The truth, as always, is somewhere in between. Regional differences in economic structure make it possible for some States to benefit more than others during the same national recovery and for others to be more burdened during the same recession. Moreover, our complicated local government structure makes it possible for some central cities to deteriorate while their suburban neighbors thrive. Finally, there is great variation across the country in the distribution

[1] See, for examples, Roy Bahl, Bernard Jump, Jr., and Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions," in "The Fiscal Outlook for Cities," ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1978), pp. 1-48; and William Oakland, "Financial Relief for Troubled Cities" (Columbus, Ohio: Academy for Contemporary Problems, 1978).

[2] T. D. Allman, "The Urban Crisis Leaves Town," Harpers (December 1978): 41-56.

of taxing powers and expenditure responsibility between levels of government. Hence, what may be a city fiscal problem in New York is a county problem in Kentucky and a State problem in Hawaii. It follows that the response to fiscal problems may vary markedly across states. What all of this means is that the effects of changes in the United States economy on State and local government finances cannot be understood apart from an appreciation of the interstate diversity in changes in economic and demographic structure and in intergovernmental arrangement. In short, generalizations are not easily made.

The objective of this paper is to begin a sorting out of the many and varied effects of recent national economic changes on State and local government finances and to consider the outlook for the State and local government sector in light of these findings. The study has six chapters and begins with a description of the growth and the changing economic role of the State and local government sector. The conventional wisdom that State and local governments should not engage in distribution or stabilization activities is reexamined and the question of whether State and local government taxes and expenditures have somehow become "too large" is considered. In chapter III, the evidence on the current fiscal health of the State and local sector is examined, with considerable attention paid to the issues of the meaning of the large sector surplus in the national accounts and the methods of identifying urban fiscal distress. The focus then shifts to an assessment of the more specific impacts of inflation and recession on State and local government revenues and expenditures. In V the fiscal effects of regional shifts in economic activity are considered.

The intent in the final chapter is to pull these strands together: (a) To assess the outlook for State and local government finances in light of probable future changes in the national economic and demographic makeup; and (b) to consider the basic elements of a national urban policy.

This paper is not meant to break new ground by presenting a full model of State and local government fiscal behavior. Rather the objective is to pull together and interpret what is known and to use whatever consensus there is to speculate about State and local government finances in the future. To the extent any new information is presented, it comes from this synthesis or from a straightforward reworking of the existing data.

II. The Growing Fiscal and Economic Importance of State and Local Governments

As the national economy and population have been changing, so has the role of the State and local government sector. The uninterrupted growth in State and local government expenditures during the past two decades has not only increased the share of Gross National product originating in the activities of State and local governments, but has dramatically changed the influence of the State and local government sector on the national economy and its role in the formulation of national economic policy.

This growth in size and importance raises a number of important questions about the "proper" distribution, stabilization and allocation

objectives of State and local governments and about "proper" Federal policy toward the State-local sector. Are subnational governments large enough to influence significantly and possibly adversely the interpersonal distribution of income in the United States? Can the alleged countercyclical behavior of State and local governments influence the pattern of national income growth, and do these fiscal decisions somehow compromise the effectiveness of Federal macroeconomic policy? Has the State and local government sector become too large in the sense of discouraging private investment and retarding economic growth while vastly overpaying public employees relative to their productivity? Or is it too small in the sense of not providing an adequate level of public services?

In this chapter we pass over the fundamental issue of the determinants of the growing importance of the State-local sector, to a description of this growth and its implications. First, some of the detail of this growing importance of the State-local sector is considered. Second, conventional thinking about what is and should be the economic role of State and local governments in the system of Federal/State/local finances is reviewed and questioned. Finally, we turn to a summary of the arguments that government—including State and local government—has somehow become too large and ought to be limited in its size and growth. Some perspective on these issues is an essential prerequisite to evaluating the fiscal health of State and local governments, a task taken up in the next chapter.

The Growth in the State and Local Government Sector

In reviewing the recent historical development of the United States public sector, three major features stand out: A growing importance of the State-local sector in the United States economy, a shift in public spending toward health, education and welfare services, and a long-term trend of increase in the Federal Government use of intergovernmental transfers and in State and local government dependence on these transfers.[3] Accompanying these trends, or perhaps beecause of them, the fiscal system has become more centralized.

The statement of a growing importance of the State and local sector requires considerably more qualification than it is usually given. Whether the State and local government sector has increased in size depends on whether we measure its growth against the Federal sector or against GNP, whether we measure government activity in terms of employment or expenditures, whether intergovernmental aids are counted as Federal or State and local government expenditures, how transfer payments to individuals are treated, and the time period chosen for study.

The two most commonly used measures of government activity are employment and expenditures. If public employment is taken as the proper measure of activity, State and local governments have clearly dominated the growth in the public sector in the past 20 years. Between 1955 and 1974, State and local government employment increased by 125 percent as compared with only 19 percent in the Federal

[3] Anyone studying fiscal trends in the American Federal system finds himself in the debt of the Advisory Commission on Intergovernmental Relations, particularly for their excellent biennial compilations, "Significant Features of Fiscal Federalism."

government sector.[4] But public employment may not be an appropriate comparative because the functions of the State and local government sector make it much more labor intensive, while transfers, debt repayment, capital outlays and other nonlabor expenditures are much more important at the Federal level. Total expenditures would seem to be a more appropriate indicator of *relative* growth of the State and local versus the Federal sector because it would include all activities of government.

The use of expenditures to measure the growth in government activity raises the question of whether Federal grants should be counted as Federal or State and local government expenditures. The former would imply measurement of size relative to where the funds are raised, the latter where they are spent. If grants are counted as part of the Federal sector, Federal Government domestic expenditures [5] are equivalent to a larger share of GNP and over the past decade have accounted for a larger and an increasing share of total public sector activity (see top panel of Table II–1). If Federal grants are included in State and local rather than Federal expenditures, then the State and local sector is larger than the Federal domestic sector, but surprisingly is not growing at a faster rate (see bottom panel of Table II–1). During the past quarter century, the Federal Government share of total public spending has increased from about 40 percent to about 45 percent of total public spending *even if defense expenditures are excluded and intergovernmental transfers are counted as State and local government expenditures.* This very important trend in the American fiscal system has not been widely recognized.

A second dominant trend in the American fiscal system has been the continuing increase in the budget claim of health, education and welfare expenditures. The increase in public expenditures at all levels of government as well as the shift toward an increasing Federal share has been largely due to increased social welfare expenditures.[6] At the Federal Government level, the expenditure increases in the past two decades have been dominated by increased grants to State and local governments and increased Social Security expenditures (see Table II–2). The Social Security share of Federal domestic expenditures has more than doubled since 1954, and the share of Federal aid has nearly doubled. Moreover, there has been a marked shift toward social welfare services in the composition of this Federal aid. As late as 1960, education, public welfare and social services accounted for only 43 percent of total Federal grants but by 1975 this share had grown to 57 percent.[7] As a result, combined Federal grants and direct expenditures for social welfare functions have increased from 66 percent of total Federal-State-local expenditures on those functions in 1950 to 78 percent in 1975.[8]

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[4] A good review of the long-term growth in public employment, by level of government, is in Jesse Burkhead and Shawna Grosskopf, "Trends in Public Employment and Compensation" in *Public Employment and State and Local Government Finances*, ed. by Roy aBhl, Jesse Birkhead and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger Publishing Co., 1980).

[5] We follow the ACIR in defining Federal domestic expenditures, as Federal expenditures other than for national defense, international affairs and finance, space research and technology.

[6] The term *social welfare* expenditures will be used here in the narrower sense to refer to health, education and welfare expenditures.

[7] Advisory Commission on Intergovernmentl Relations, "Trends in Fiscal Federalism" (Washington, D.C.: Government Printing Office, 1976).

[8] Such a calculation requires an assumption about how much of the general revenue sharing allocation is spent for health, education and welfare purposes. We assume here that State and local governments spend general revenue sharing money for social welfare services in the same proportion that they spend their "own source" funds for these services. Even the 57 percent share assumed here may be ow since the "other and unallocable" hare of Federal grants has grown from 10 to 20 percent over this period and som of this increase is no doubt social welfare oriented.

TABLE II-1.—CHANGING ROLE AND IMPORTANCE OF FEDERAL, STATE, AND LOCAL GOVERNMENTS:[1] 1954, 1964, AND 1969-76

Calendar year	Expenditure—As a percent of total public sector			Expenditure—As a percent of GNP		
	Federal, domestic[2]	State[3]	Local[3]	Federal, domestic[2]	State[3]	Local[3]
Government domestic expenditure:						
From own funds:						
1954	45.5	25.5	29.0	6.2	3.5	4.0
1964	48.3	24.3	27.4	8.5	4.3	4.8
1969	48.9	26.1	25.0	9.9	5.3	5.1
1970	50.5	25.7	23.8	11.2	5.7	5.3
1971	51.9	24.9	23.2	12.1	5.8	5.4
1972	54.2	23.7	22.1	12.7	5.6	5.2
1973	54.3	24.3	21.4	12.8	5.7	5.0
1974	55.3	24.3	20.4	13.7	6.0	5.2
1975	57.9	22.9	19.2	15.8	6.3	5.3
1976	58.9	22.6	18.5	15.6	6.0	4.9
1977	59.5	22.5	18.0	15.5	5.9	4.7
1978[4]	59.9	23.1	18.1	15.2	6.0	4.7
1979 estimate	57.7	23.8	18.3	15.0	6.2	4.8
After intergovernmental transfers:[5]						
1954	39.7	21.4	38.9	5.4	2.9	5.3
1964	39.0	22.5	38.5	6.9	4.0	6.8
1969	38.2	23.4	28.5	7.8	4.7	7.8
1970	39.3	22.9	37.8	8.7	5.1	8.4
1971	40.2	22.9	36.9	9.4	5.4	8.6
1972	40.6	22.8	36.6	9.5	5.4	8.6
1973	41.1	22.4	36.5	9.7	5.3	8.6
1974	42.8	21.8	35.4	10.7	5.5	8.9
1975	44.9	21.5	33.6	12.3	5.9	9.2
1976	45.4	22.0	32.6	12.0	5.8	8.6
1977	45.9	21.9	32.2	12.0	5.7	8.4
1978[4]	44.8	22.5	32.7	11.6	5.8	8.5
1979 estimate	44.7	22.7	32.6	11.6	5.9	8.4

[1] National income and product accounts.
[2] Excludes Federal expenditure for national defense, international affairs and finance, space research and technology, and the estimated portion of net interest attributable to these functions. Includes social security (OASDHI) and all Federal aid to State and local governments including general revenue sharing payments.
[3] The national income and product accounts do not report State and local government data separately. The State-local expenditure totals (national income accounts) were allocated between levels of government on the basis of ratios (by year) reported by the U.S. Bureau of the Census in the governmental finance series.
[4] Preliminary.
[5] All Federal aid to State and local governments, including general revenue sharing payments is included as State-local expenditure and excluded from Federal domestic expenditure.

Source: This table, and the accompanying notes, are a summarized version of tables III and III-A in ACIR "Significant Features of Fiscal Federalism, Vol. 1, Trends." The ACIR reports the following source: ACIR staff compilation based on U.S. Department of Commerce, Bureau of Economic Analysis, "Benchmark Revision of National Income and Product Accounts: Advance Tables, March 1976; Budget of the United States Government," various years; and ACIR staff estimates.

At the State and local government level, over 60 percent of the expenditure increase during the past two decades has been for social welfare purposes. This increase is by no means solely due to the increased Federal aid for these functions. The 50 percent of State and local government own source revenues that was allocated to the financing of health, education and welfare services in 1957 has steadily increased. While the average 1 percent increase in GNP over the past 20 years generated a 0.87 percent increase in total State and local government expenditures from own sources, it generated a 1.22 percent increase in social welfare expenditures from own sources (see Table II-3).

The third major trend during the past two decades has been the growing importance of Federal aid flows in the public sector. For every 1 percent increase in GNP between 1954 and 1976, Federal general revenues (including Social Security) grew by about 1 percent, State and local government revenues from own sources by about 2 percent, and Federal aids by about 5 percent. With this trend has come

TABLE II-2.—SOURCES OF GROWTH IN FEDERAL DOMESTIC EXPENDITURES

Calendar year	Federal domestic expenditure					
	Percentage distribution			As a percent of GNP		
	Social security (OASDHI) [1]	Federal aid	All other [3]	Social security (OASDHI) [1]	Federal aid [2]	All other [3]
1954	16.3	12.8	70.9	1.0	0.8	4.4
1964	30.1	19.2	50.7	2.6	1.6	4.3
1969	36.4	21.9	41.8	3.6	2.2	4.1
1970	35.8	22.2	42.1	4.0	2.5	4.7
1971	35.2	22.4	42.3	4.3	2.7	5.1
1972	34.1	25.1	40.8	4.3	3.2	5.2
1973	36.9	24.3	38.7	4.7	3.1	5.0
1974	37.1	22.6	40.3	5.1	3.1	5.6
1975	34.4	22.5	43.1	5.4	3.6	6.8
1976	35.8	23.0	41.2	5.6	3.5	6.4
1977	36.6	23.0	40.4	5.7	3.6	6.3
1978 estimate	37.6	24.1	38.3	5.7	3.6	5.8

[1] National income and product account.
[2] Federal aid as reported in the national income accounts differs slightly from the Federal payments (census) series (used in a subsequent table showing Federal aid by major purpose). The major difference is the inclusion of Federal payments for low-rent public housing (estimated at $1.6 billion in 1976) in the census series but excluded by definition from this series. Includes Federal general revenue sharing.
[3] Includes direct Federal expenditure for education; public assistance and relief, veterans benefits and services; commerce, transportation, and housing, etc.

Source: This table, and the accompanying notes, are a summarized version of table IV in ACIR, "Significant Features of Fiscal Federalism, Vol. I, Trends." The ACIR reports the following source: ACIR staff compilation based on U.S. Department of Commerce, Bureau of Economic Analysis, "Benchmark Revision of National Income and Product Accounts: Advance Tables, March 1976; Budget of the United States Government," various years; and ACIR staff estimates.

a growing reliance by State and local governments on Federal aids (Table II-4). In terms of the composition of State and local general revenues, increases in aids and to a lesser extent, State income taxes, have compensated for the declining importance of the local property tax as a source of finance.

TABLE II-3.—COMPONENTS OF STATE AND LOCAL GOVERNMENT EXPENDITURE GROWTH

	Increase: 1957-77		Elasticity with respect to own source revenues
	Amount (millions)	Percent	
Total, own source revenues	$233,087	554	
Total, expenditures less Federal aid	175,281	480	0.87
Total, social welfare expenditures	140,551	678	1.22
Health and hospitals	19,343	604	1.09
Welfare	32,537	956	1.73
Education	88,671	627	1.13

Source: U.S. Bureau of the Census, "Governmental Finances in 1976-77, table 3, pp. 16-17; U.S. Bureau of the Census, "Statistical Abstract of the United States, 1960, table 522, p. 409.

TABLE II-4.—RELIANCE OF STATE AND LOCAL GOVERNMENTS ON FEDERAL AID AND MAJOR TAX REVENUE SOURCES

Year	Percent of total general revenues			
	Federal aid	Property taxes	Income taxes	Sales taxes
1954	10.3	34.4	6.6	25.1
1964	14.7	31.0	8.0	23.1
1974	20.1	23.0	12.3	22.2
1976	21.7	22.3	12.3	21.3
1977	21.9	21.9	13.4	21.2
1978	22.0	21.0	13.9	21.4

Source: U.S. Bureau of the Census, "Governmental Finance," series GF No .5 (Washington: U.S. Government Printing Office, various years).

Accompanying these three important trends has been a growing dominance of State government within the State and local sector. The State government share of total taxes collected rose from 56 to 63 percent between 1965 and 1978, and the States' share of direct expenditures increased from 43.1 to 45.4 percent (see Table II–5). Such a trend is consistent with the factors which have characterized United States public sector growth during the past two decades. The increasing flow of Federal grants increased the fiscal leverage of the State governments over most of this period—only very recently has there been any significant amount of direct Federal-local assistance. Moreover, state government income and sales taxes are more bouyant than local property taxes and there has been a trend toward heavier State government financing and direct administration of social welfare services.

TABLE II-5.—INTERSTATE VARIATIONS IN SELECTED INDICATORS OF THE GROWTH IN THE RELATIVE FISCAL IMPORTANCE OF STATE AND LOCAL GOVERNMENTS

	Total expenditures as a percent of State personal income		Federal aid as a percent of personal income		Federal aid as a percent of general revenues	
	1965	1978	1965	1978	1965	1978
Mean	17.0	20.8	3.4	4.6	18.9	23.9
Standard deviation	3.6	3.7	2.2	1.3	7.5	5.1
Coefficient of variation	.21	.18	.66	.28	.56	.21
	Revenues from own sources as a percent of personal income		State government percentage of direct expenditures		State government percentage of tax revenues	
Mean	13.4	14.5	43.1	45.4	56.0	63.0
Standard deviation	1.8	2.5	10.6	9.7	12.2	10.0
Coefficient of variation	.13	.17	.25	.21	.22	.16

Source: "Governmental Finances 1977–78 and 1964–65."

While these trends would seem to hold for the State and local sector in total, they may not describe the behavior in every State. There is a diversity in the pattern of fiscal response to changes in the national economy. On average,[9] States have increased their expenditure share of personal income, raised tax effort and received Federal grants which constituted an increasing share of State personal income. But whereas States became more homogeneous in terms of the share of personal income spent by State and local governments, there was a growing interstate diversity in tax effort, i.e., the gap between high

[9] In Table II–5, we define *average* as the mean value of the variable across the 50 States, e.g., the average percent of taxes to personal income (Ty) is

$$\bar{T}y = \sum_{i=1}^{50} Ty_i/50.$$

This is different, of ocurse, from the average percent of taxes to personal income, defined as

$$\bar{\bar{T}}y = \sum_{i=1}^{50} T_i / \sum_{i=1}^{50} Y_i.$$

For our purposes, the former seems the more appropriate way of defining an average against which to compare interstate variations.

and low taxing States widened (see Table II–5).[10] This resulted in part because the distribution of Federal aids relative to income became much more homogeneous, and much more equalizing.[11]

The centralization of fiscal activity toward the State level is a relatively uniform trend. As may be seen in Table II–5, the average change in the percent of direct expenditures (excluding grants) made by State governments increased by only 2.3 percentage points over the 1965–1978 period, but States became more alike in their division of fiscal responsibility between the State and local level. In fact, only 14 of the 50 States had reductions in the State direct expenditure share, and all 14 were the less populous and more rural States. The increased State share of tax revenues is much more pronounced and, as may be seen in Table II–5, States have become much more alike in terms of State dominance of the tax system. Only five States moved against this trend.

What are the prospects that these trends will continue to hold? There is some evidence of the beginnings of a turnaround in two areas. First, the mood of the country seems to be in the direction of reducing the size of the public sector with all levels of government sharing in the reduction. At least in the short term, the cry for Federal budget balance limits Federal spending, there are indexing and limitation amendments at the State level, and local voters continue to restrain budgets. Second, a reduction in the rate of increase in Federal grants has begun and likely will continue as the Federal Government continues its adjustment to a slower growing economy. The effects of both changes have begun to show up in the turnaround in the rate of public sector growth beginning in about 1975, and in the slowdown in Federal grants after 1978 (see Table II–1).

Whether the other dominant trends described above will continue is less clear.[12] The growth in Federal grants and elastic State and local government revenue systems fueled the growth in social welfare expenditures. It is conceivable that the first bite out of shrinking State and local government revenues may come from these same programs, particularly in the declining region where benefits are relatively high and budget pressures are most severe. The trend toward greater State government dominance of State and local government finances, on the other hand, seems certain to continue. Direct Federal aid to local governments has already slowed dramatically, the major local government resource—the property tax—will likely remain under fire, and State governments still have the most income and inflation responsive tax systems.

The Economic Role of Subnational Governments

What is the place of State and local governments in the formulation and implementation of national economic and social policy? Conventional thought holds that of the three functions of public budgets—stabilization, distribution and allocation—only the latter

[10] The standard measure of relative variation used in Table II–5 is the *coefficient of variation*, i.e., the standard deviation as a percent of the mean. The smaller the coefficient, the less dispersed is the distribution. For example, the reduction in the coefficient for the ratio of Federal aid to personal income means that the States are grouped more closely about the mean in the latter year.

[11] At the same time, the interstate distribution of per capita income has become more and more equal during the past two decades.

[12] This topic is addressed in Chapter VI.

is properly a budgetary function of lower level governments.[13] Local government stabilization programs may be quickly ruled out. Fiscal policies to affect the rate of increase of national income and prices require a coordinated effort which is beyond the reach of State and local governments (imagine the consequences of permitting the New York City government to print money!) The distribution of income would also seem to require nationwide programs lest some States try to ride free on the policies of others by allowing the poor to migrate to more egalitarian States and providing tax havens for the wealthy. By process of elimination, economic theory and the conventional wisdom have identified the allocation decision as the proper budgetary function of State and local governments. Allocation decisions relate to what services will be provided and how budgets will be financed. Such decisions would seem best left to our fragmented system of 80,000 State and local governments.

In practice, the economic role of State and local governments may not be so limited as the conventional theory would suggest. Fiscal decisions made by State and local governments do have a significant impact on stabilization and distribution. With the growth in own source revenues to about 11 percent of total Federal, State and local government revenues, and with expenditures equivalent to about 15 percent of GNP, the fiscal activities of State and local governments can influence the stability of prices, the stability of income growth and the distribution of real income. The major budgetary role of subnational governments will continue to be the allocation function. Yet the trends discussed above have changed even this traditional role of State and local governments by reducing their autonomy through conditional grant programs, expenditure mandates, school finance issues, civil rights legislation, etc.

These trends and the possibilities they imply would seem to call for a reconsideration of the traditional views about the proper role of State and local governments. Accordingly, the sections below consider the impact of the State and local government sector on stabilization and distribution policy and then turn to the broader allocation issue and particularly to the question of whether the State and local government sector has become too large.

MACROECONOMIC POLICY AND STATE AND LOCAL GOVERNMENT FINANCES

The conventional wisdom is that State and local governments cannot and should not allow their budgetary decisions to be influenced by considerations such as the need for controlling inflation or for stimulating national income growth. Certainly control of the size of the money supply could never be decentralized: The temptation to any one government to print enough to cover its deficit and then spread the inflationary effects over the Nation would be too great. Subnational government fiscal policy is equally improper. If State or local government borrowed to stabilize national income growth, a heavy burden would be placed on future generations of local residents since most State debt is held by outsiders. Neither would increases or reductions in State spending be an effective stabilization measure because of leakages from the State economy, i.e., the typical State

[13] Many public finance economists have made this point. For a summary of the issues involved, see Wallace Oates, "Fiscal Federalism" (New York: Harcourt, Brace, Jovanovich, 1972), pp. 4–13.

resident spends a significant share of his income on goods produced in other States, hence the employment generating effects of such programs would spread to other areas and States. In short, the open economy problem precludes the use of fiscal and monetary policy by State and local governments to alter income and price level growth.

At a time when the State and local government sector was spending a much smaller share of GNP, there was little else to say about the role of State and local governments as regards the formulation of national economic policy. In 1980, the question might be restated in terms of how the State and local government sector should be considered in formulating Federal macroeconomic policy, and three issues might be raised: (a) Budgetary decisions of State and local governments may compromise or accentuate Federal stabilization programs; (b) Federal stabilization programs which involve stimulating the State and local sector may result in unintended, but fundamental, changes in the system of Federalism; and (c) some local and State governments, either autonomously or in concert with the Federal Government do engage in programs designed to increase their share of total national income growth.

Effects on the business cycle.—It has long been debated whether the discretionary fiscal actions of State and local governments tend to reinforce economic contractions or expansions or are countercyclical. Hansen and Perloff argued that there was a perversity in the fiscal behavior of State and local governments, that they increased spending in times of national expansion and that they curtailed spending and raised taxes in times of national economic contraction.[14] Hence they saw the fiscal actions of State and local governments as following the cycle and intensifying economic fluctuations. In a careful study of the post-war-to-early-1960's, Rafuse was unable to find evidence of the "perversity" hypothesis.[15] His results show that State and local government revenues had a stabilizing effect during every expansion and had a perverse effect during every contraction, and that expenditures had the opposite effects. "To note these conclusions is, of course, simply to spell out the stability implications of receipts and expenditures that continued to rise whatever the phase of the business cycle."[16]

More recent analyses show mixed results, partly because of ambiguities in the measurement of the impact of the State and local fisc. The consensus of studies by the ACIR,[17] Gramlich,[18] Vogel and Trost,[19] Reischauer,[20] and Jones-Weisler[21] is that the State

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[14] Alvin Hansen and Harvey Perloff, "State and Local Finance in the National Economy" (New York: Norton, 1944).

[15] Robert Rafuse, "Cyclical Behavior of State-Local Finances," in *Essays in Fiscal Federalism*, ed. by Richard Musgrave (Washington, D.C.: The Brookings Institution, 1965).

[16] Rafuse, "Cyclical Behavior of State-Local Finances," p. 117.

[17] Advisory Commission on Intergovernmental Relations, "State-Local Finances in Recession and Inflation" (Washington, D.C.: Government Printing Office, 1979); and ACIR, "*Countercyclical Aid and Economic Stabilization*" (Washington, D.C.: Government Printing Office, 1978).

[18] Edward Gramlich, "State and Local Government Budgets the Day After it Rained: Why is the Surplus so High?" *Brookings Papers on Economic Activity* 1 (Washington ,D.C.: Brookings Institution, 1978), pp. 191–214 and Edward Gramlich, "State and Local Budget Surpluses and the Effect of Federal Macroeconomic Policies," Joint Economic Committee, Congress of the United States (Washington, D.C.: Government Printing Office, 1979).

[19] Robert Vogel and Robert Trost, "The Response of State Government Receipts to Economic Fluctuations and the Allocation of Counter-Cyclical Revenue Sharing Grants," *Review of Economics and Statistics*, Vol. LXI, No. 3 (August 1979): 389–400.

[20] Robert Reischauer, "The Economy, The Federal Budget and the Prospects for Urban Aid," in *The Fiscal Outlook for Cities*, ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1978), pp. 93–110.

[21] Frank Jones and Mark Weisler, "Cyclical Variations in State and Local Government Financial Behavior and Capital Expenditures," *Proceedings of the Seventieth Annual Conference on Taxation* (Columbus Ohio: National Tax Association-Tax Institute of America, 1978), pp. 78–87.

and local government fiscal response is mildly countercyclical but probably differs markedly from State to State. In any case, there is no evidence that the destabilizing behavior observed by Hansen and Perloff during the depression has been repeated in the post World War II period.

The performance of the State and local sector during the 1975–78 recovery probably did not add significantly to the expansion. During this period, the Federal Government's budget deficits were in the $30–$70 billion range, while Federal grants to State and local governments *increased* by $23 billion (42 percent). A major share of this increase was due to the "Economic Stimulus Package", i.e., the CETA, Local Public Works and Antirecession Fiscal Assistance programs. During this same period, State and local government construction expenditures increased slightly, from $34.6 billion to $37.6 billion, but the general account surplus of State and local governments grew from $6.2 billion to a $27.4 billion surplus.[22] The fact that the State and local sector had accumulated a surplus about one-third the size of the Federal deficit by 1978 (and the fact that much of this accumulation was due to increased Federal grants), suggests that the expansionary grant policies of the Federal Government were to some extent offset by the contractionary actions of State and local governments.

History may not reveal clearly that the fiscal actions of State and local governments are strongly countercyclical, but the size of the State and local sector means that such actions have to be reckoned with in the formulation of national economic policy. Whether State and local government fiscal decisions can be anticipated and used in the formulation of Federal macroeconomic policy is another question. There would seem to be some possibilities. While much of the expenditure increase of State and local governments is not easily controlled or reduced, the *timing* and to some extent the magnitude of some expenditure increases are manageable. Certainly the timing and magnitude of public employee compensation agreements is important to Federal anti-inflation policies, since State and local government employees now account for about 13 percent of total wages and salaries. State and local governments do have some control over the timing and magnitude of employment increases and reductions, tax rate and base adjustments, and are most flexible of all in terms of the timing of capital expenditures.

Implications for changes in structure.—Federal policies instituted or expanded in the name of stabilization objectives may have important long-term effects on the structure of State and local government finances. Because such effects can be unintended byproducts rather than the result of reasoned policy, they may be inconsistent with the effects of other Federal, State and local government policies. A good example is the aforementioned Economic Stimulus Package which vastly increased the share of Federal grants going directly to local governments. This, in turn, had two important effects. First, it reduced the role of State governments in the Federal-State-local fiscal system, at a time when the State government share of total taxing and spending was on the increase. This policy ran counter to the trend of increased centralization and reduced the leverage of State govern-

[22] U.S. Department of Commerce, Bureau of Economic Analysis, "Survey of Current Business" (Washington, D.C.: Government Printing Office, July 1979).

ments in the State and local fiscal system. The second important effect was a dramatic increase in the revenue dependence of some large cities on direct Federal assistance. Such dependence is not easily lessened, particularly for cities whose economic base is growing slowly or actually declining. To be sure, the drift toward more direct Federal-to-local aid was present in the early 1970's but it increased dramatically after 1975. The important point is that a countervailing direct dependence on the Federal Government were not explicit objectives of the Stimulus Package.

Another example of structural change in the name of macroeconomic policy is the proposed elimination of the State government share of general revenue sharing as a component of a Federal budget balancing plan. This would represent a change in the *system* of Federal-State-local finances by slowing the centralization of State and local government finances.

DISTRIBUTION

The conventional wisdom views income distribution policies as being outside the appropriate set of objectives of State and local government budget policy. This is because the mobility of residents and productive factors may allow them to offset the distributional intentions of governmental tax and expenditure policies, i.e., high income taxpayers may migrate to other jurisdictions/regions to avoid paying for redistributive programs while low income families may migrate in to benefit from them. One could attribute some of the fiscal problems of New York City and New York State to their attempts to engage in redistribution through the provision of relatively large amounts of public service benefits and transfers to the poor.

The fact remains that State and local governments have a significant effect on the distribution of income. Their most visible form of distributive influence is through participation in direct income transfers, i.e., public assistance payments. Though the Federal Government provides about half the funding for public welfare services there are substantial interstate and even intercity variations in benefit payments. The consensus of research would seem to be that low income families have not migrated to high payment areas in order to benefit from such programs,[23] hence individual government programs may well have been effective.

The more significant way that State and local governments influence the distribution of real income is through the extraction of taxes and the provision of services. This aspect of distribution policy at the State and local level has changed as the sector has grown with changes in the balance between Federal and subnational government revenues and expenditures and as the composition of State and local government budgets has changed. The net effect of tax and expenditure policies on the distribution of real income is not certain because of the problems of measuring expenditure benefits.[24] Conceptually it would seem that the potential effects of State and local government fiscal actions can be especially crucial for low income families. State and local governments tax housing and may tax food, thereby possibly

[23] For a review of the evidence on this point, see "Domestic Consequences of United States Population Change," Report prepared by Select Committee on Population, U.S. House of Representatives (Washington, D.C.: Government Printing Office, December, 1978).

[24] For a good discussion of these problems, see Charles McLure, "The Theory of Expenditure Incidence" *Finanzarchiv* 30 (1972): 432-53.

imposing a heavy tax burden on the very poor. On the expenditure side, health, education and welfare services may make an inordinately heavy contribution to the real income of low income families. While one can make a reasonable case that net impact of State and local government budgets is redistributive, measurement limitations prevent an objective analysis.

The changing amount and mix of public spending within the government sector implies a growing distributional role for subnational governments. By 1979, Federal nondefense outlays—excluding intergovernmental grants—were 11.7 percent of GNP while State and local government expenditures were 14.3 percent of GNP. Ten years ago, the comparable figure for the State and local sector was only 12.5 percent. About 60 percent of the State and local total was for education, health, and welfare services—functions which would seem to have the most important implications for the distribution of real income. It is not just the amounts spent for these functions but the composition and spatial distribution of such expenditures (e.g., in poor or rich neighborhoods, in central cities or suburbs, for clinics or hospitals, etc.) that significantly affects the real income position of low income residents. There is evidence of much concern about how the State and local sector allocates its expenditure package among citizens in different income classes. State grant programs, particularly for education, are allocated among jurisdictions on an equalizing basis and some States have moved toward programs of "overburden aid" for hard-pressed central cities. State courts have shown a concern with the distributional role of State and local government in the celebrated school finance cases where the property tax has come under attack as a financing mechanism that discriminates unfairly in favor of higher wealth jurisdictions.[25]

There may be less potential for redistributive effects on the tax than on the expenditure side, simply because the Federal Government finances about one-fourth of State and local government expenditures through grants. State and local government tax financing is probably not progressive, though there is more than a little debate over the incidence of the property tax.[26] But even if property taxes are less regressive than has been traditionally assumed, the tax system is overall probably no better than proportional, sales taxes are proportional to slightly regressive depending on the treatment of food, and the Federal tax deduction provision tends to make the whole system more regressive. The net result, according to Pechman and Okner, is a heavy tax burden on the very low income and an approximately proportional distribution of tax burden over most of the rest of the income distribution.[27]

The concern with distribution effects in virtually every tax reform proposal must be some evidence that State and local governments see distribution as a valid role. It is not important that the motives behind this concern are political, only that changes in the distribution of real income are seen to be a valid objective of the State and local government sector. More tangible evidence of this concern is the enactment

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[25] Serrano v. Priest, 5 Cal, 3d 584 (1971); and San Antonio Independent School District v. Rodriguez, 411 U.S. 1 (1972).

[26] A good summary of this debate is in Henry Aaron, "Who Pays the Property Tax?" (Washington, D.C.: The Brookings Institution, 1975).

[27] Benjamin Okner and Joseph Pechman, "Who Bears the Tax Burden?" (Washington, D.C.: The Brookngs Institution, 1975).

of property tax relief measures such as circuit breakers and sales tax exclusions for food and other necessities.

It is also significant to note that the Federal Government has recognized the possibility for using State and local governments in national redistribution policies through public service employment programs. On balance, this evidence suggests that income redistribution cannot be thought of as exclusively or even primarily a Federal Government function. State and local government budgets, whether by design or not, play an important distributional role.

THE ALLOCATION FUNCTION: IS THE STATE AND LOCAL GOVERNMENT SECTOR TOO LARGE?

The major role of subnational government budgets is allocative, i.e., to determine the relative sizes of government and private sector activity. Because of some combination of the increasing demand for public services, externalities associated with urbanization and congestion, increasing factor costs and institutional arrangements, the Government share of GNP has grown. This growth has caused some analysts, politicians and voters to suspect that government has become too big. Since State and local governments were an important part of this growth, consideration of this question would seem necessary in order to speculate about the future role of State and local governments in the allocation of resources.

Economic theory does not provide guidelines for judging the "optimal" size government. Because public goods cannot be bought for individual use like private goods, consumers do not reveal their relative preferences for government services. Hence they are unable to signal government decisionmakers that public goods are being oversupplied at their current prices.[28] Without a normative basis to establish whether government has become too large or not large enough, the debate has become popularized, politicized, and more impressionistic than objective. By now it is not at all clear what precipitated the California tax revolt—low public sector productivity, high property taxes, or large state surpluses.

If one were looking for more objective guidelines to suggest whether the public sector is somehow too large, three possibilities might be raised: Government is too small by comparison with other developed countries; government is too large because it interferes unduly with the market, lowers the return to investors, and retards economic growth; government is too small because it has not succeeded in markedly correcting the unequal distribution of income.

Intercountry comparisons.—Intercountry comparisons of the size of government implicitly assume that average practice somehow constitutes a reasonable norm. Whether or not such a criterion is telling of anything, it is true that the size of government in the United States is small by comparison with other developed countries. As may be seen from the comparison of advanced countries in Table II–6, only Australia and Japan have a smaller ratio of taxes to GNP than does

[28] Some would argue that voters can send such signals to elected politicians, hence government decisionmakers try not to stray too far from the preferences of the median voter. Niskanen rejects even this possibility with the argument that fiscal decisions are primarily influenced by bureaucrats whose ultimate objective is to maximize their power by maximizing their bureau budget. See William Niskanen, "Bureaucracy and Representative Government" (New York; Aldine, 1971).

the United States. Likewise, the rate of growth in government spending in the United States is relatively small. Only two of the countries considered here had a smaller growth in the tax share of GNP over the 1965–1976 period. These results hold true whether social security taxes are included or excluded.

TABLE II-6.—INTERCOUNTRY COMPARISONS OF THE SIZE OF GOVERNMENT: SELECTED COUNTRIES

Country	Ratio of taxes to GDP			Per capita GNP, 1976 (in U.S. dollars)
	1976	1965	Increase	
Australia	29.2	23.5	5.7	7,387
Austria	39.1	34.0	5.1	5,409
Belgium	40.6	30.0	10.6	6,819
Canada	32.0	25.7	6.3	8,410
Denmark	44.4	29.5	14.9	7,599
Finland	41.3	29.7	11.5	5,950
France	39.1	36.9	2.2	6,552
Germany	39.0	32.8	6.2	7,249
Italy	32.7	28.9	3.8	3,040
Japan	24.1	19.9	4.2	4,937
Netherlands	46.2			6,501
Norway	47.6			7,767
Sweden	50.8	35.0	15.8	9,029
Switzerland	31.0	20.9	10.1	8,864
United Kingdom	36.2	26.7	9.5	3,937
United States	30.1	26.4	3.7	7,912
	Ratio of taxes to personal income			Per capita personal income
United States	30.6	30.2	0.4	6,399
New York	35.5	32.2	3.3	7,019

Source: "United Nations Yearbook of National Accounts Statistics," 1977, tables 1, 14a.

Even if intercountry comparison seemed a reasonable way to establish a norm for the size of the public sector, there are two important problems with this kind of comparison. First, it does not compare the same package of public services; e.g., some countries have national health plans and more extensive welfare programs. It follows that it is not possible to use these data to show greater or lesser efficiency in government operations. Rather, the comparisons also show differences in the scope, quality, cost, and efficiency of public service provision. To use the low government share in the United States to show that the public sector is "too small" implies a belief that services such as welfare, health, and higher education should be financed totally by general taxation, rather than partly through the private sector.

A potentially more serious problem with these comparisons is that they do not consider variations in the size of government within countries. Certainly the variation within the United States is great enough to where the overall Federal, State and local tax burden in some areas might compare favorably with European countries. For example, if we add the Federal, State and local government tax share of personal income in New York State, the tax ratio rises to 16 percent above the United States average. The comparison with European countries is much more favorable.

INVESTMENT DISINCENTIVES

An argument which has attracted much attention of late is that government has become too large because it acts as a disincentive to capital formation through excessive taxes and unduly restrictive

regulation. The main culprits are said to be taxes on income and property which have risen to 70 percent of total Federal, State and local government taxes and to approximately 15 percent of GNP.

Income taxes distort the choice between labor and leisure, particularly for the very young members of the labor force and for working wives, and may significantly reduce the overall level of work effort in the economy. Income taxes also bias the choices between savings and consumption since that part of income going into savings is taxed as current income and the returns from savings are taxed again as income when received. Corporate income taxes, property taxes, and personal income taxes all lower the rate of return to capital. Boskin has argued that savings do respond quite substantially to changes in the after-tax rate of return to capital, hence higher taxes on capital reduce the future size of the capital stock, future labor productivity, wages, and income.[29]

If one accepts the argument that the current taxation of capital income does significantly retard capital formation, then two avenues of reform would appear open. The first would call for structural changes in the tax system which would reduce the tax burden on capital, such as integration of personal and corporate income taxes, replacing the current income tax with an expenditure tax, or indexing the income tax for inflation.[30] The other reform possibility follows the line of argument that government has gotten too large and that a growing taxation of capital income has accompanied this government growth. A reduction in the size of government, if accompanied by a reduced rate of taxation on capital income, would result in increased investment and eventually in increased real wages and income.

Though the capital formation argument is usually brought up in connection with Federal tax reform, there are important state and local government fiscal implications. About one-third of taxes on capital are levied by State and local governments as compared to about one-fifth as recently as 10 years ago. A realistic reform of the taxation of capital would also require reductions at the State and local government level. Moreover, because of the deductibility provisions under the Federal income tax, a reduction at the Federal level would generate an automatic increase in effective tax rates paid at the State and local level thereby offsetting a part of the Federal reduction. Finally, reduced Federal taxes would have to lead to reduced intergovernmental transfers. This would require State and local governments to cut either expenditures or raise tax rates, and if they increased taxes in accordance with present tax structures, about half of the increase would come in the form of income and property taxes.

Income redistribution.—It might be argued that there is a direct relationship between the size of the public sector and the distribution of income. Kuznets saw this as a major influence in his analysis of the relationship between income distribution and economic growth.[31] The exact relationship between the growth in government size and changes in the income distribution is not well developed. Gillespie's

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[29] Michael Boskin, "Taxation, Saving and the Rate of Interest," *Journal of Political Economy* Vol. 86, No. 2 (1978): S3-27.

[30] For a discussion of these alternatives, see "Federal Tax Reform: Myths and Realities," ed. by Michael Boskin (San Francisco: Institute for Contemporary Studies, 1978).

[31] Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review* 45(1) (March 1955): 1-28.

work on the United States shows that the net effect of the budget is progressive [32] but more recent work for the United States has shown little effect.[33] On the other hand, some work for European countries, where the government sector is larger, does indicate substantial redistribution through the public sector.[34]

One might weave these piecemeal findings into an argument that the larger government sizes in European countries reflect a greater government involvement in social insurance and social welfare activities. Such services are of immense importance to the real income position of the poor, hence their provision through the public sector markedly reduces the degree of income inequality.[35]

But since the United States fiscal system is more decentralized than that in most advanced countries which have a larger government sector, and presumably a more equal distribution of income, the direct relationship between growth in the government sector and reductions in income inequality may not hold. Growing State and local government taxes would not likely improve the income distribution since sales and property taxes are not progressive and State income taxes tend to be less progressive than the Federal income tax.

Summary

The growth in the United States public sector during the past two decades can be summarized by five dominant trends: (a) The Federal *share* of total public sector activity increased; (b) the expenditure increase was dominated by the health, education and welfare functions; (c) the State and local government sector became much more dependent on Federal grants; (d) State government became increasingly dominant in the State and local government financial system; and (e) the share of GNP accounted for by State and local governments increased substantially.

With this increasing importance of State and local government finances in the economy have come new economic roles, particularly in the areas of macroeconomic policy and income distribution. The fiscal behavior of the State and local government sector has been mildly countercyclical through the 1970's as financial assets were accumulated during recoveries and drawn down during recessions. This explains the lack of success of ARFA, CETA, and LPW as a stimulus package during the 1975–1978 period. The *potential* role of State and local government in income redistribution is becoming more and more important as their tax and expenditure levels increase, but their net effect on the distribution of income hasn't been adequately measured. Based on the best available evidence, we might guess the distribution of tax burdens is proportional and the distribution of expenditure benefits is mildly progressive.

The future growth of the State and local government sector, and changes in its structure are uncertain. If trends of the past two decades

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[32] W. Irwin Gillespie, "Effects of Public Expenditures on the Distribution of Income," in *Essays in Fiscal Federalism*, ed. by Richard Musgrave (Washington, D.C.: The Brookings Institution, 1965), pp. 122–186.

[33] Morgan Reynolds and Eugene Smolensky, "The Post-Fisc Distribution: 1961 and 1970 Compared," *National Tax Journal*, Vol. 27 (1974): 515–530.

[34] Malcolm Sawyer, "Income Distribution in OECD Countries," *OECD Economic Outlook*, Occasional Studies (July 1976): 3–36; and Mark Wasserman, "Public Sector Budget Balance," *OECD Economic Outlook* Occasional Studies (July 1976): 37–51.

[35] Though it must be admitted that estimates of the distribution of expenditure benefits are based on a primitive methodology, for a careful review of this work, see Luc Dewulf, "Fiscal Incidence Studies in Developing Countries: Survey and Critique," *International Monetary Fund Staff Papers*, Vol. 22 (March 1975): 61–131.

were to continue, one might expect a much greater centralization of fiscal activity to the Federal and State level, a much greater dependence of State and local governments on Federal grant revenues, and a rising share of total government expenditures devoted to health, education, and welfare services. There are, however, forces at work which may alter these trends and provide quite a different future for State and local government finances. One of the most important would seem to be the call for a slowdown in the growth of governments. Though there are countervailing influences—some reinforcing and some offsetting the limitation movement—there does not seem to be a clear logic behind the argument that government has somehow become too big.

III. The Fiscal Health of the State and Local Government Sector

Is the State and local government sector fiscally healthy? A decade and a half ago the answer would have been a resounding no. General revenue sharing was being touted as a necessary fiscal dividend for hard-pressed State and local governments and urban poverty and the quality of life in central cities were seen as major *national* problems. Many would still hold this view. Urban poverty is even more concentrated in central cities, real per capita income and population in cities have continued to decline absolutely and relative to suburbs, and city/suburb disparities in public service levels, tax effort and unemployment rates are more pronounced than ever. In many ways, urban governments are as poor and as dependent as their constituencies and their outlook is almost as bleak. Though generally agreed upon norms do not exist, the quality of public services provided in many of these cities seems badly deficient. This situation, one could argue, is part of a long-run deterioration which will make short-run financial problems of the New York, Cleveland, and Wayne County variety an increasingly common occurrence. Moreover, the New York City crisis demonstrated clearly that State governments cannot remain aloof from the problems of their local units. The fiscal problems of city governments sooner or later become fiscal problems of State governments.

Others would argue that while there may be pockets of distress, the State and local government sector is fiscally sound, maybe even flush. The national recovery and increased Federal assistance have stimulated State and local government revenues, generated cash reserves and enabled tax cuts. Even for central cities, the conditions cited above do not hold in many metropolitan areas and in any case may be as much a result of bad management and conscious fiscal choices as an indication of true financial "distress." On these grounds, some have written off New York, Cleveland, and Detroit as special, or unique cases which tell us little about central cities in general. The most Pollyannaish of all see a comparative advantage of central cities in recapturing growth through a revitalization process referred to as gentrification [36] and in benefitting from rising gasoline prices which may return middle income families from the suburbs.

[36] The process involves a filtering of housing from working class families to higher income families, who for some reason, have rediscovered the virtures of city living. A useful discussion of the process is in Peter Salins, "The Limits of Gentrification," *New York Affairs*, 5, No. 4 (1979).

The stakes in this debate are the allocation of Federal resources—both the amount of Federal grants allocated to the state and local government sector and the distribution of the amount among governments and regions. Those who argue that many cities are distressed and that many States have reached their taxable capacity limits would call for an expansion of the major programs of aid and for a "targeting" in the distribution of these aids on distressed governments rather than a spending" among a larger number of jurisdictions.[37] Those who argue that the fiscal distress issue has been overstated call for a smaller Federal aid share in the total Federal budget. Federal expenditure reductions to combat inflation and the political pressures to reduce the size of government or at least to limit its growth are the major supporting arguments for this position. Quite apart from the question of how much Federal aid is necessary, there is considerable debate about how it should be distributed. Nearly everyone believes it ought to be "targeted" on the most needy governments, but there is little agreement as to what constitutes fiscal distress or how it ought to be measured.

This chapter surveys the evidence about the current fiscal health of State and local governments. First we consider the meaning and importance of the growing budgetary surplus in the State-local sector. Second, we consider the evidence from that literature which attempts to measure and compare fiscal distress, and finally, we review the recent fiscal performance of large cities.

The State-Local Sector Surplus

On the surface, the NIA surplus in the State-local government sector would appear to mean an excess of annual revenues over expenditures, an addition to cash reserves or an amount available to subsidize future tax reduction. As can be seen from column (1) of Table III–1, this surplus reached a high of over $30 billion by the beginning of 1978. In the same year, Federal aid to State-local governments rose to more than $77 billion, an increase of 15 percent over the previous year. The sentiment on the part of some Federal officials and Congressmen in 1978 is easily understood. If State and local governments already had more revenue than they could spend, why then should Federal assistance to States have continued to increase? More to the point, why should the Federal Government—whose budget deficit has remained over $40 billion during much of this period—continue to subsidize this accumulation?[38] In deed, if Federal assistance had been reduced by the amount of the State and local surplus in 1977, the Federal budget would have moved substantially toward balance.

Since its 1978 peak, this surplus has declined by about $5 billion, and if social insurance funds are excluded, the State and local government sector moved into a deficit position by mid-1979. This deficit

[37] For a discussion of the targeting and spreading issues, see Richard Nathan, "The Outlook for Federal Grants to Cities," in *The Fiscal Outlook for Cities*, ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1978), pp. 75–92. The argument to alter the regional distribution of Federal funds is made in Daniel Patrick Moynihan, "The Federal Government and the Economy of New York State," (unpublished report), June 15, 1977.

[38] The Joint Economic Committee used the surplus argument and the observation that State tax revenues have grown faster than inflation to recommend that "Congress should evaluate the General Revenue Sharing Program and should consider the possibility of reducing or eliminating the portion going to the states." The 1979 Joint Economic Report, March 22, 1979, p. 30.

TABLE III-1.—GROWTH IN THE STATE AND LOCAL GOVERNMENT GENERAL SURPLUS, FEDERAL AID, AND THE FEDERAL BUDGET DEFICIT

[In billions of current dollars]

Year: quarter	Total NIA surplus of State-local sector	General surplus of State-local governments	Total Federal aid	Annual increase in Federal aid	Federal Government budget deficit
1974:					
1st	9.5	−0.3			
2d	8.8	−1.5	43.3	[1] 1.5	
3d	7.7	−3.0			
4th	4.2	−6.8			
1975:					
1st	3.7	−7.6			
2d	4.5	−7.2	54.6	11.3	−70.6
3d	6.6	−5.8			
4th	8.9	−4.2			
1976:					
1st	12.2	−2.3			
2d	15.2	−.1	61.1	6.5	−53.6
3d	18.5	2.4			
4th	25.9	9.1			
1977:					
1st	24.2	6.3			
2d	24.2	5.4	67.5	6.4	−46.3
3d	30.1	10.0			
4th	28.8	7.4			
1978:					
1st	30.2	7.9			
2d	29.6	6.5	77.3	9.8	−27.7
3d	22.7	−.9			
4th	27.1	3.3			
1979:					
1st	27.6	2.6			
2d	19.7	−6.3	80.4	3.1	−11.4
3d	25.3	−1.8			
4th	25.8	−2.2			
1980: 1st	24.6	−4.2	86.0	5.6	−22.9

[1] 1973–74 increase.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, "Survey of Current Business," July 1979, July 1980.

has increased in size through early 1980 with the onset of the current recession. Paradoxically, the reduction in the surplus in the late 1970's can be used as evidence that the State and local government sector is "overaided." The decline since 1978 is largely due to a swing from surplus to deficit in all accounts other than social insurance, which resulted from the slowest annual growth in revenues since 1954. The slow growth in revenues was due in large to tax reductions which became law in 1978 and 1979—including Proposition 13.[39] Hence, the State and local government sector surplus was drawn down to finance tax cuts. From a Federal Government point of view, this pattern still allows the case for Federal aid reductions, i.e., State governments were healthy enough to reduce or index taxes even though the rate of Federal aid increase slowed from 15 to 3 percent.

There may be some validity to the argument that the State-local government sector is overaided, but the argument does not easily rest on the NIA surplus statistics. The use of the NIA surplus information to argue such policy changes is based on a set of premises which may not be valid: (a) That a surplus for any government may be interpreted as describing fiscal health; (b) that the NIA surplus measure is a good indicator of excess financial capacity; and (c) that these surpluses are sufficient evidence to warrant *permanent* changes in the Federal aid

[39] David J. Levin, "State and Local Government Fiscal Position in 1979," Survey of Current Business, Vol. 60, No. 1 (January 1980): 23-26.

system. None of these premises, in fact, is unquestionably valid and none would seem to be the proper basis to call for major reductions in Federal assistance to the State and local government sector. This is not to say that all State and local governments are distressed or that some Federal grants do not directly increase State government cash balances, but that trends in the surplus measure are flawed as a basis for formulating short-term policies. The problems stem from a misinterpretation of the NIA date and from a failure to recognize the temporary nature of the improved fiscal condition of State and local governments during the 1975–1978 economic recovery period.

Because of the potential importance of the surplus measure in affecting public policy, it would seem useful to explore the NIA surplus concept as a measure of State-local government fiscal health and in that light to consider the evidence on fiscal health as given by the NIA surplus statistics.

JUSTIFICATIONS FOR A SURPLUS

A year-end fiscal surplus for a State or local government is neither unusual nor undesirable,[40] and it may not be automatically interpreted as evidence of "excess" resources. In fact, most State and local governments are prohibited by law from budgeting for an operating fund deficit;[41] therefore, it is not surprising that the national accounts would show at least a small year-end cash surplus.[42] More to the point, governments, like people, save for precautionary reasons by building up cash reserves over a period of years. These balances are accumulated for relatively small contingencies such as a prolonged strike or a natural catastrophe (snow, flood), for cash flow problems stemming from the timing of revenue receipts and creditor payments, and for short-run economic catastrophies such as recession. Practices among governments vary widely in terms of the size of reserves actually held, and there are only rules of thumb about the optimal size of general fund cash balances.[43]

Larger cash balances in some States and local areas may be justified as protection against severe business cycle fluctuations. States such as Michigan with a susceptibility to national economic fluctuations and with heavy State-local government direct and indirect fiscal dependence on the automobile industry could face severe fiscal fluctuations over the cycle. Even more industrially diversified States face substantial increases in unemployment and welfare related expenditures during a recession. Theoretically, governments could accumulate reserves during periods of economic expansion and draw these reserves down during contractions. Over the cycle, these reserves should approach the relatively small contingency amount described above. The

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[40] Indeed, it may be necessary practice. One financial analyst for a major bond rating agency has noted that the percentage of general fund unobligated balances to expenditures is a key financial indicator, and thinks that 5 percent is ". . . a good solid number for a state surplus unless you have a cyclical economy." See "Understanding the Fiscal Condition of the States," p. 12; Philip Dearborn also argues that liquidity in the general fund is a key indicator of fiscal strength in "Elements of Municipal Financial Analysis, Part I: Measuring Liquidity" (New York: First Boston Corporation, 1979).

[41] Connecticut and Vermont are the exceptions to this limitation. However, the legal requirement of a balanced budget depends very much on the definition of a deficit. See National Association of State Budget Officers, "Limitations on State Deficits" (Lexington, Kentucky: Council of State Governments, April 1976).

[42] It should be noted that the NIA accounts may show a surplus or deficit for a state or local government even if the budget is in balance because NIA data are reported on a calendar rather than a fiscal year basis.

[43] The National Association of State Budget Officers mentions year-end *balances* of 5 to 7 percent of general fund expenditures as common for states. See "Understanding the Fiscal Condition," p. 12.

experience with such a practice is limited. Michigan and Colorado have established budget stabilization reserves. New York and California established such funds after the Second World War, but the objectives of the funds were not achieved.[44] The lack of success, then and now, is not surprising. The pronounced upward trend in State-local government expenditures over the past two decades has dwarfed cyclical fluctuations—if there were excess revenues in an expansionary period, they were quickly spent. If there were deficient revenues during a contraction, tax rates were increased.[45] As long as the national economy was growing so rapidly, there was little need for such a fund.

The experience of the 1970's has changed the growth orientation of fiscal planners; i.e., in the 1950's and 1960's, an overcommitment of expenditures or an overestimation of revenues or grants were errors which could be quickly covered by economic growth. There would always be more revenue next year than this year, more public employees to contribute to the pension fund, and discretionary tax rate increases—as long as they were not too large—would be accepted by the voters. All that has changed, at least for many State-local governments. The new concerns are that pension systems are underfunded and in many cases the shortfall will have to be financed from a shrinking tax base and a smaller population; long-term debt burden is too high to be carried by future revenue growth and there seems no possible way to finance 'normal' expenditures in the event of another recession. State and local government financial planners, forecasters, and administrators—a conservative lot in the best of times—have become even more careful. This new wariness, together with uncertainties about the future performance of the national economy, inflation, and the energy crisis may account for the building up of reserves by State and local governments observed in the past few years.[46]

But before one can determine whether reserves in the past few years have been inordinately high, say greater than the 5 to 7 percent balance in the general operating account suggested as "normal" by the National Association of State Budget Officers, a more acceptable measure of the surplus must be defined.

REDEFINING THE NIA SURPLUS MEASURE [47]

National Income Accounts data show a substantial increase in the State-local sector surplus—from an annual rate as low as $3.7 billion in the first quarter of 1975, to a high of $30.2 billion in the first quarter of 1978 and to $24.6 billion in the first quarter of 1980 (see Table III–1). An annual surplus, equivalent to about 12 percent of State and local government own source revenue in 1978 and 9 percent in 1979 and 8.5 percent by the first quarter of 1980 would seem to indi-

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[44] David Blank, "Reform of State Local Fiscal Relations in New York," National Tax Journal (December 1950): 106–107.

[45] The definitive study of the cyclical behavior of State-local government expenditures, covering the period from World War II to 1965, is Robert Rafuse, "Cyclical Behavior of State and Local Government Finances," in Essays in Fiscal Federalism, ed. by Richard Musgrave (Washington, D.C.: The Brookings Institution, 1965), 63–121.

[46] Dearborn's analysis of the financial condition of 28 large cities in 1977 supports the fiscal restraint thesis—he found a general fund operating surplus (excluding New York City, Chicago, and Cleveland) of $212.8 million or 3.2 percent of general fund expenditures. Philip Dearborn, "The Financial Health of Major U.S. Cities in Fiscal 1977" (New York: First Boston Corporation, 1978).

[47] These measurement problems are covered in some detail in Edward Gramlich's very useful paper, "State and Local Government Budget Surpluses and the Effect of Federal Macroeconomic Policy," Joint Economic Committee, January 12, 1979; see also Edward Gramlich, "State and Local Budgets the Day After it Rained: Why is the Surplus so High?" *Brookings Papers on Economic Activity: 1 (1978)*: 191–216.

cate that governments have ample reserves freely at their disposal to meet public service needs and/or to reduce taxes. The comparable figures of 8 and 11 percent in 1976 and 1977 would further suggest that these surpluses are not a temporary aberration, that they have been accumulating and have placed some State-local governments in a position to influence markedly the level of public services offered or to underwrite major tax reductions.

It would be incorrect to draw such an inference. The NIA measure overstates the actual surplus or level of "free reserves" because it includes net additions to the assets of State and local government pension funds. The excess of pension funds contributions and earnings over beneficiary payments does not represent additions to fund balances available for general government operations because the funds are owned by individuals. If these surpluses are subtracted from the NIA surplus, the remainder can be viewed as the *general government surplus or deficit.*[48] The results of this adjustment still show a surplus, though of a much smaller magnitude and with a much less steady growth (see Table III–1). Indeed, the general government surplus had fallen to less than 2 percent of total general expenditures by the end of 1978 and has remained in deficit since mid-1979.

The general government surplus, though a better measure of fiscal health in the State-local government sector, is still flawed. It includes both current and capital expenditures but only a portion of capital financing. Because debt retirement expenditures are excluded, the NIA method of accounting for capital expenditures results in an *understatement* of the amount of resources accumulated by State-local governments in any given year. The greater the retirement of debt, *cet. par.*, the smaller will be the NIA surplus. A more appropriate measure of the unrestricted amount available to cover any future revenue shortfall is the *operating surplus;* i.e., the surplus exclusive of capital spending and financing.

The operating surplus may be derived from the general government surplus as shown by the simple set of identities below. The NIA surplus (S) (exclusive of social insurance funds) is defined by the identity

$$R+G-CE-KE=S \qquad (1)$$

where

R=revenues from own sources
G=total Federal grants (for current and capital purposes)
CE=current expenditures, excluding debt retirement but including interest expenditures
KE=construction expenditures (excluding purchases of land).

We might view this surplus as having a current or operating (OS) and a capital (KS) component; i.e.,

$$S=OS+KS. \qquad (2)$$

The capital financing and expenditure components of (1) might be expressed as

$$KG-IE-KE=KS \qquad (3)$$

[48] The term *general government surplus* should not be confused with a *general account surplus.* The former is used here to refer to all funds other than social insurance.

where

KG=capital grants received from the Federal Government

IE=interest expenditures.

Now if

$$CE=OCE+IE \tag{4}$$

where

OCE="other" current expenditures,

then we may subtract (3) from (1) to get a measure of the operating surplus, i.e.,

$$OS=R+(G-KG)-OCE. \tag{5}$$

Following Gramlich, we might view debt retirement (DR) as a proxy for capital consumption and deduct it from the operating surplus in (5), i.e.,

$$OS=R+(G-KG)-(OCE+DR). \tag{5a}$$

This measure of the operating surplus might be construed to represent the amount which governments have available to finance some capital expenditures with current funds, to reduce taxes, to raise current expenditures or to accumulate reserves to use for any one of these purposes in the future. The level of the operating surplus will present a truer picture of the aggregate fiscal health of the State and local government sector and its recent growth. One would expect this measure of the surplus to be always positive; i.e., it is not conceivable that the State-local government sector in aggregate would be unable to cover its operating expenses.

Gramlich's calculation of this operating surplus has been roughly followed here, but using revised NIPA data for 1977 and 1978 (see Table III–2).[49] These results show a growing operating surplus for the 1975–1977 recovery period and a very slight decline in 1978. By these calculations, the fiscal position of State and local governments would appear to have improved during the recovery period. Two features of this improvement are noteworthy, and perhaps surprising. First, the pattern of surplus accumulation in this period is no startling departure from the pattern of the recent past. Large operating surpluses are common—the 1970–1978 average was $13.9 billion—and the pattern of growth follows the business cycle in a predictable way. In fact, the surplus increase in the 1972–1974 recovery period was greater than that in the 1975–1977 recovery period.[50]

Second, the surplus is actually small by comparison with past years when the growth in State-local government budgets is considered. The operating surpluses since the 1975 recession are equivalent to 7 to 8 percent of revenues raised from own sources, a proportion which is lower than that realized during the previous recovery. The same

[49] Gramlich probably underestimated Federal funding and therefore overestimated the surplus because only grants for highways, water and sewer have been included and there is no accounting for any earmarking of user charges for capital construction purposes. He made these simplifying assumptions because data for a more accurate adjustment were not available. We used essentially the same procedure in adjusting the 1979 revisions of the NIPA data.

[50] There are interesting parallels between the 1972–1974 and 1975–1977 period. Substantial surpluses accumulated during 1973 and 1974 because of inflation and the beginnings of Revenue Sharing, and were drawn down to compensate for slower revenue growth at the onset of the recession. Then, as now, much of the surplus was thought to be accruing at the State government level. See Neal Pierce, "State-Local Report/Fiscal Crisis Illustrate Growing Interdependence," *The National Journal* (February 1975): 280–292.

TABLE III-2.—COMPONENTS OF GROWTH IN THE STATE AND LOCAL GOVERNMENT SURPLUS

[In billions of current dollars]

Year	NIA surplus	Surplus excluding pension funds	Operating surplus	Operating surplus as a percent of—			
				Federal grants [1]	Federal budget deficit	State and local government: Revenues raised from own source	State and local government: Total general expenditures
1970	1.8	−4.8	8.8	44.2	73.9	8.0	6.6
1971	3.4	−3.9	9.8	40.7	44.7	8.0	6.6
1972	13.7	5.6	19.1	58.1	110.4	13.7	11.7
1973	13.0	4.1	18.4	52.0	274.6	12.0	10.2
1974	7.6	−2.9	14.2	38.2	132.7	8.5	7.0
1975	6.2	−6.2	9.4	20.3	13.3	5.2	4.1
1976	17.9	2.3	14.2	27.3	26.5	6.9	5.7
1977	26.8	7.3	15.6	26.8	33.6	7.5	5.7
1978	27.4	4.2	15.5	22.9	56.0	6.8	5.1

[1] Fewer construction grants for highways, water, and sewerage.

Source: Department of Commerce, Bureau of Economic Analysis, "Survey of Current Business," July 1974, July 1976, July 1977, July 1978, July 1979, tables 3.1, 3.2, 3.4, 3.7, and 3.14; Department of Commerce, Bureau of the Census, "Governmental Finances in 1977–78, 1976–77" (1975–76, 1974–75, 1973–74, 1972–73), table 3.

pattern holds when the operating surplus is viewed as a percent of total general expenditures. Hence, at least in terms of practices during the past decade, the growing surplus in the State-local sector should be no more of a problem now than it has been in the past years. What seems to have been forgotten in the discussion of the growing surplus is that the operating budgets of State-local governments have increased rapidly, by 129 percent between 1970 and 1977 and by 30 percent between 1975 and 1978. It should not be all that unexpected that the operating surplus, while remaining in its historical range of 5 to 10 percent of general operating expenditures, has increased in dollar terms.

The question still arises as to whether the operating surplus in its present $15 billion range indicates fiscal health for the State and local government sector in aggregate. In one sense the answer is that it does. Since 1975, State and local governments have added $45 billion to their war chests for discretionary actions including tax cuts, new expenditure programs and contributions to capital projects. Even so, the well-being of the State and local government sector may not have increased all that much. If the accumulation of cash reserves is seen as purchasing power increases, much of its value has been eroded by inflation.[51] The surplus growth may also be seen as a result of deferrals—such as postponing capital expenditures and employee compensation increases—and therefore it is not so unencumbered as our definition would suggest. Over the longer run, the issue of whether the annual surplus is somehow too large depends on the extent to which it will be drawn down in the next recession. The experience of the last recession suggests a considerable reliance on reserves to make up for revenue shortfalls. Overlying all of these concerns is the possibility that the $15 billion operating surplus is so unevenly spread that it indicates financial health for relatively few State and local governments. This is the aggregation problem to which we now turn.

[51] It would seem a safe bet that the cost of State and local government purchases of goods and services has increased at a faster rate than its normal return on short-term investments.

AGGREGATION PROBLEMS

The existence of an operating surplus for the State and local government sector does not imply a healthy fiscal position for every State and local government. The State of California's large surplus does not make the fiscal condition of New York State any better. Since the NIA surplus is a measure that offsets surpluses in some states with deficits in others, an aggregate surplus would be possible even if most State and local governments were in financial trouble. In fact, "The Fiscal Survey of the States" reports that three states—Alaska, California, and Texas—accounted for more than half of the aggregate balances of reporting states in 1978.[52] It would not seem unreasonable to expect that these three States also accounted for a large share of the operating surplus in the past few years.

NIA statistics also aggregate the fiscal conditions of governments within States, i.e., California's large state surplus is treated as offsetting the deficits of some California local governments. It is important to note this aggregation problem in interpreting the surpluses as a measure of fiscal health of local governments—distressed cities can be located in States where there is an aggregate State and local government surplus. The extent of urban fiscal distress may be less influenced by the State government surplus than by the fiscal responsibility the State government assumes toward its local units.

The aggregation problem with the surplus measure has led to the airing of some important questions about who in the State and local government sector is fiscally healthy and who is not. Is the surplus largely concentrated at the State government level, and even there in a very few States? To the extent there are local government surpluses, are they in the large or small cities, and particularly, how have the budgets of the largest cities fared during the recovery? Unfortunately, there are not firm, reliable data to resolve these issues. The best that can be done is a piecing together of fragmentary evidence, oftentimes from data that are not strictly comparable.

State versus local government surpluses.—Intuitively, one might expect the surplus to be concentrated at the State government level. State income and sales tax revenues are more bouyant than local property taxes during an economic expansion and State governments have greater freedom in undertaking discretionary tax actions. A Bureau of Economic Analysis breakout of the State vs. local surplus for the 1960–1976 period suggests that this intuition would be incorrect, at least for the early 1970's.[53] During the last recession State governments ran larger deficits (see Table III–3) largely because of their more income-sensitive tax structures and greater responsibility for welfare-related expenditures. These results support the strenuous arguments of representatives of State government associations and Governors, that the picture is not one of huge State surpluses and local deficits.[54] The National Governors' Association estimated the accumulated balance

[52] National Governors' Association and National Association of State Budget Officers, "Fiscal Survey of the States" (Washington, D.C.: 1978–79).

[53] David Levin, "Receipts and Expenditures of State Governments and of Local Governments, 1959–1976," *Survey of Current Business* Vol. 58, No. 5 (May 1978): 15–21. This analysis had not been repeated for a more recent year at the time of this writing.

[54] See, for example, the prepared statement by Stephen Farber, Director, National Governors' Association, in "Local Distress, State Surpluses, Proposition 13: Prelude to Fiscal Crisis or New Opportunities?" Hearings before the Committee on Banking, Finance and Urban Affairs, July 25 and 26, 1978, pp. 779–787.

in "free" State accounts to be no more than $6 billion by the end of fiscal year 1978. Remaining balances held by States are said to be restricted to narrow uses (by constitutional provision or by statute).

TABLE III-3.—DISAGGREGATION OF GENERAL GOVERNMENT SURPLUS

Year	General government surplus	State governments	Local governments	Local governments: Municipalities with populations above 25,000	Local governments: Total local governments
1967	−5.9	−2.3	−3.6	−0.3	−1.2
1968	−5.0	−.5	−4.6	−.7	−1.2
1969	−3.7	−.8	−2.9	−.8	−2.1
1970	−4.0	−3.8	−.1	−1.5	−2.3
1971	−3.8	−4.3	.5	−1.7	−2.8
1972	5.6	3.2	2.4	−1.3	−1.3
1973	4.1	−.0	4.2	.8	3.8
1974	−2.9	−3.8	.9	.5	5.9
1975	−6.2	−4.8	−1.4	.1	2.0
1976	3.9	1.3	2.6	−.1	1.5
1977	13.7				
1978	4.2				
1979	−2.2				

Source: Cols. (1)-(3) from David Levin, "Receipts and Expenditures of State Governments and of Local Governments, 1959-1976," Survey of Current Business (May 1978); and, Cols. (4) and (5) from Edward Gramlich, "State and Local Government Budget Surpluses and the Effect of Federal Macroeconomic Policy," Joint Economic Committee, Jan. 12, 1979; Survey of Current Business (January 1980).

On the one hand, these results may not be so counterintuitive. Since 1975, direct Federal aid to cities has increased dramatically. Moreover, there has been a trend toward a greater share of direct expenditures at the State government level and an increasing State government share in total State and local government financing. The healthier look of local government budgets, then, is as much due to these subsidies as to increased local government taxes. On the other hand, these data can be read to suggest that the surplus is more likely to indicate fiscal health at the State than at the local govenment level. Since the 1975 recession, State governments have increased taxes, expenditures, public employment, and public employee compensation at a faster rate than have local governments.[55] This would seem to imply that there was greater retrenchment at the local than at the State government level, and together with the trend of direct Federal aid increase to local government, might account for results such as those obtained by Levin.

It must also be remembered that the aggregate surplus in the local sector reflects the budgetary position of a variety of local government types (e.g., school districts, counties, suburban municipalities) with great variations in fiscal resources and needs. Again, during the past recovery period, the greatest fiscal retrenchment would appear to have taken place at the municipal government level.

Variations in State surpluses.[56]—The NIA do not provide detail on the financial position of individual states. To develop such estimates, we must resort to the National Governors' Association "Fiscal Survey of the States" [57] or to the Census of Governments Governmental Finances." [58]

[55] An assessment of the current fiscal performance of local government is taken up in the last section of this chapter.

[56] This section draws on an unpublished manuscript, Roy Bahl, Marvin Johnson, and Lawrence P. DeBoer, Jr., "The Fiscal Outlook for State Governments," Report prepared for Hamilton-Rabinovitz, Inc., under a grant from the Aetna Foundation.

[57] National Governors Association and National Association of State Budget Officers, "Fiscal Survey of the States" (Fall, 1977).

[58] U.S. Bureau of the Census, "Governmental Finances in 1977-78," Series GF78, No. 5 (Washington, D.C.: U.S. Government Printing Office, 1979).

The two data sources are not comparable with the National Accounts data[59] or even with each other. The use of the Fiscal Survey data confirm the suspicion that there is a wide variation among State governments in the reported size of the fiscal surplus and that this surplus has grown since 1975. In aggregate during FY 1978, 48 States reported ending balances of over $8.9 billion, or about 8.6 percent of their $104 billion in aggregate expenditures. Most of this surplus was accumulated by a small number of states. California alone accounted for over 41 percent of the total; three states (California, Alaska and Texas) accounted for over 56 percent of the surplus in fiscal year 1978.

Net of these three States, the aggregate surplus for the remaining 45 States was $3.9 billion, an amount equivalent to only 4.5 percent of operating expenditures. Although three States accounted for most of the surplus, several other States had relatively large surpluses.[60] Besides Alaska, California and Texas, two other States (Wyoming and Oregon) had surpluses in excess of 20 percent of their total operating expenditures. Surpluses of between 10 and 20 percent of total spending were reported by another eight States and only Pennsylvania reported a deficit. Clearly the real and absolute magnitudes of the State government surplus varies among the States. Yet in fiscal year 1978, 28 of 48 States reported surpluses in excess of the benchmark of 5 percent of total operating expenditures.[61] In general, State governments were flush in 1978.

The National Governors' Association (NGA) also collected data on projected resources, expenditures and balances for fiscal year 1979.[62] Aggregate balances in State general operating funds were projected to decline to about $4.3 billion, a drop of $4.5 billion (or 52 percent) from their 1978 level. Aggregate State surpluses were projected to be reduced by roughly half, largely because California anticipated giving most of its $3.7 billion balance to local governments in State aids. In addition, most other States anticipated a declining surplus: 35 of 48 reporting States (73 percent) projected that the State government surplus would be smaller in 1979 than 1978. The NGA concluded that States expected their year-end balances to decline sharply as a result of changes in State tax policy, a flattening or even downturn in the economy, and a greater impact of inflationary pressures on their expenditures.[63]

This sharp decline in State balances may not have occurred. Of 12 States sampled, 9 revised their projected surplus *upward* after the NGA survey, 2 States (New York and Pennsylvania) revised their surplus projections downward and 1 State (Utah) projected the same surplus. Although making guesses on the basis of a small, nonrandom sample is treacherous, one might suspect that State government surpluses for fiscal year 1979 will turn out to be substantially higher than those reported by the NGA in the most recent Fiscal Survey.

Variations in the local surplus.—Gramlich has attempted to disaggregate the budgetary position of the local government sector with

[59] Each July the "Survey of Current Business" includes a description of the difference between NIA and the Census of Governments tabulations. See "Survey of Current Business," July 1979, Table 3.18.

[60] North Dakota, a state not included in the NGA's sample, reported a large surplus in 1978: $193.1 million—or 73.3 percent of total expenditures.

[61] This 5 percent benchmark may well be an overstatement of needs for contingencies. The rule of thumb is meant to be applied to the relationship between *total cash balances* and operating expenditures, and it seems reasonable to believe that States have been accumulating balances during the 1976–1978 period of economic recovery.

[62] National Governors' Association, "Fiscal Survey of the States, 1978–79."

[63] National Governors' Association, "Fiscal Survey of the States, 1978–79."

Census of Governments data. Though not comparable with the NIA amounts or procedures, his estimates suggest that the largest cities and, in general, all municipal governments with populations in excess of 25,000 have fared worst. According to his results, the local government surplus must lie with smaller local governments, counties, and special districts. Such deduction is dangerous because relatively little work has been done on smaller cities, but this inference is consistent with Muller's finding that the smaller cities have experienced the largest increases in Federal aid.[64]

The finding that local governments in aggregate are in a surplus position raises the interesting question of the relative fiscal health of large cities on the various "distressed" lists. Can a distressed city have a budget surplus? Gramlich's data give an affirmative answer, at least in the case of the operating surplus concept. Of the 20 large cities he studied—including Cleveland—only New York City showed an operating deficit for 1975–76. Gramlich's answer and analysis are probably correct, but cannot give a detailed picture of the budgetary condition of individual local governments because of the limitations of Census of Governments data.

Some very interesting information on the financial condition of large city governments comes from the work of Philip Dearborn in his continuing studies of audited financial statements.[65] Of the 28 large cities in his sample, he finds 21 instances of revenue/expenditure imbalances in at least one year since 1976. For the 27 largest cities (excluding New York) his results show an aggregate general fund revenue/expenditure deficit of $154.2 million in 1976, a surplus of $230.9 million in 1977, and a surplus of $73.6 million in 1978. Dearborn's work is not only informative about the current financial condition of cities but it is convincing in demonstrating that such conclusions are best drawn from careful case-by-case analysis of local financial statements.

THE SURPLUS AND FISCAL HEALTH

Even measured for individual governmental units, a budget surplus is not a good, comparative measure of long-term fiscal health. The annual operating surplus describes the excess of current revenues over current expenditures, an amount available for additional capital or current spending, tax reduction, funding for the pension system, or the accumulation of reserves. The excess could mean a bouyant revenue system and truly indicate fiscal health. On the other hand the excess could reflect no more than a temporary embarassment of riches resulting from service cutbacks, reductions in capital expenditures and employment, deferred compensation, etc. In the case of both State and local governments, there is more than a passing amount of evidence to indicate that the recovery period surpluses, described in Table III–3, are more likely a temporary situation than a sign of permanent fiscal health.

For these reasons, *comparative* measures of the surplus may be misleading. The problem is less what the surplus measures than what

[64] Thomas Muller, "Growing and Declining Urban Areas: A Fiscal Comparison" (Washington, D.C.: The Urban Institute, 1976).

[65] Philip Dearborn, "Elements of Municipal Financial Analysis: Part IV: Condition of Major City Finances" (New York: First Boston Corporation, 1977): and "The Financial Health of Major U.S. Cities In 1978," Working Paper (Washington, D.C.: Urban Institute, 1979).

it does not measure. Cities, or States, may have the same financial surplus but vastly different fiscal and economic characteristics which taint the interpretation, e.g., two governments may have the same surplus but one may have a more dilapidated infrastructure, a greater debt service and retirement expenditure claim on future revenues, and a much higher level of taxation.

The use of a local government budget deficit as an indicator of fiscal health or distress raises the broader issue of whether the financial condition of State governments has any meaning independent of consideration of the financial condition of their local government units. That is to say, can a State government retain a healthy surplus position while certain of its local government units are fiscally distressed? The answer seems to be that most analysts and policymakers do not believe that local governments have a prior claim on State government surpluses. Bond analysts often rate State government credit strength better than their constituent local government units. Recents massive amounts of direct Federal aid to cities located in "surplus" States would suggest that Federal policymakers also see a distinction between the financial position of States and their local governments.

State government would not be expected to subscribe to the notion that local fiscal problems are State responsibilities. From a State government view, through direct Federal aid, local governments have sought and obtained substantial autonomy with respect to budget decisions. Because of this, the State may argue that it need not assume responsibility for the effects of whatever may place a local unit in financial stress. It follows that a State government surplus could exist, logically and properly, alongside local government deficits.

The view from city hall will differ. Local governments are creations of the State and their fiscal operations are to a large extent regulated by the State. Tax rates and debt levels are limited, taxing powers are prescribed and some local government expenditures are mandated by the State. City governments could argue that State governments regulate their fiscal decisions, and constrain their fiscal options, hence, State governments should automatically assume some responsibility for the deficit. This argument would lead to a position that the fiscal health of a State should not be separated from that of its constituent local governments, i.e., distressed local governments should have some claim on State government surpluses.

The State government view more likely holds sway. There is always substantial debate over the share of the State budget to be allocated to local aid programs, and California's Proposition 13 movement is evidence of what local voters can do about commandeering a state's surplus for local purposes. By and large, however, there is not a commonly accepted view that local governments have first claim on any State government surplus. Because this is the case, the interpretation of the aggregate sector surplus in terms of what it implies for fiscal health must always be qualified.

CONCLUSIONS

The NIA surplus tells nothing about the fiscal health of individual governmental units and little about the fiscal health of the State and local government sector in aggregate. The surplus measure provides

indirect evidence about fiscal health in giving some indication of the direction of State and local government sector budgetary movements. An increasing operating surplus does suggest that revenues are growing faster than expenditures, even though programs may have been cut back and capital maintenance expenditures deferred.

The State-local government sector surplus remained between 5 and 10 percent of own-source revenues during the 1975–1978 recovery—not an unusually high level. It has increased during the recovery as it should have, and likely will fall during the next recession. One should conclude from this that there is nothing abnormal about the current size or the recent growth of the sector surplus, except that it may be distributed so unequally that some governments have built little if any budgetary strength during the recovery period.

This reading of the data suggests that one must look elsewhere for measures of fiscal distress or health. The major concern ought to be identification of those pockets of fiscal distress; i.e., those areas of relatively high need and low resources where grants might be targeted. As those responsible for formulating grant distribution policy have learned, admitting the existence of distressed cities is much easier than identifying them.

Comparative Measures of Fiscal Distress

Fiscal distress is a qualitative term, so it is not surprising that it can mean different things to different people. Indeed, since measures of distress may be used to allocate Federal and perhaps State grant funds, there is incentive to view fiscal distress in many different lights. Members of Congress can agree that their own cities are distressed, Mayors can collectively agree that all cities are distressed, the National Governors' Association will argue that State governments are not especially well off, and so it goes.

In fact, there is no good measure of the current fiscal health of cities and states. In one sense, all are in trouble because the level of public services is never adequate and taxes are always too high. On the other hand, governments can't be in too much trouble if they are able to maintain an unhealthy level of fat in their budgets and continue to expand public employee benefits. Such anecdotal views aren't very helpful in guiding public policy. The more objective measures of fiscal health, or distress, are also not without flaws. Indeed, different analysts can reach different conclusions from the same "objective" measures.

Two possibilities exist for comparing fiscal health among jurisdictions. The first is to measure changes in the level of revenues and expenditures of governments—a budgetary approach. The second is to compare indicators of need, economic health and fiscal performance to develop an overall measure of need which has alternatively been referred to as fiscal *need, distress, strain,* or *hardship.* Most comparative studies either combine these two possibilities or deal only with needs indicators. With the possible exception of Dearborn's comparative work on budgetary position,[66] most budgetary analyses are case study rather than cross section.

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[66] See Dearborn, "The Financial Health of Major U.S. Cities in Fiscal 1977," 1978; and "The Financial Health of Major U.S. Cities in 1978," 1979.

The comparative approach is focused on urban areas, usually large cities, and attempts to measure *relative* economic, social and fiscal health. The comparison usually considers more than budgetary position in trying to get a fix on the balance between resources available to the local governments and service level "needs." The specific measurements used are sometimes flawed and always debatable, but the intent of most of these studies is to identify cities whose populations have heavy concentrations of high cost, low income families. The spirit of such research relates to the possibility of redistribution of real income through the government sector, hence, one major use of financial distress studies is to identify candidates for special Federal assistance or special Federal concern. The work of Richard Nathan, and various of his colleagues,[67] on identifying hardship cities has been used to monitor the actual distribution of Federal assistance as has a Treasury study of distressed cities.[68] Other studies have been more directly concerned with developing formulae to allocate Federal grant funds among governments.

If there is another important use to which such comparative studies might be put, it is in measuring the riskiness in investing in municipal bonds. Bond ratings are measures of relative creditworthiness and therefore require cross-section analyses of government fiscal and economic condition. Ironically, this use would work toward penalizing distressed cities, since they must be inherently greater credit risks.

There is no question but that any comparison of cities will lead to the finding of outliers in terms of social, economic and fiscal health, so it is not surprising that all studies of this type find some cities which are distressed. But it is not clear that being an outlier in such a comparison is evidence of fiscal distress. In the more careful studies, there is some sense to the comparative argument, but in others it is ludicrous.

Most lists of cities in trouble—whether objectively or subjectively derived—include older cities of the Northeast and Midwest and relatively few of the newer cities in the South and West, but there is still disagreement over the specific list of cities which ought to be included on the critical list. This debate, such as it is, centers on differences in the conceptual approaches and measurement techniques used and on the interpretation given the results. More basically the problem is that one analyst's version of distress may differ markedly from another's. Some see age of housing and infrastructure and slow population growth to be *prima facie* evidence of greater need in the cities of the North, while others see lower incomes and the pressures of population growth to be evidence of greater need in the South. Such differences won't be resolved here, or in Congress, but it would seem useful to review the results of the distress studies in this light.

In the next sections we consider methodological issues, describe and examine the implications of the various approaches used and then turn to a comparison of the results; i.e., is there any substantial consensus about which cities are in trouble?

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[67] Richard P. Nathan and Charles Adams, "Understanding Central City Hardship," *Political Science Quarterly* 91, No. 1 (Spring 1976).

[68] U.S. Department of the Treasury, Office of State and Local Finance, "Report on the Fiscal Impact of the Economic Stimulus Package on 48 Large Urban Governments" (January 23, 1978).

METHODOLOGICAL ISSUES

While there is no "right" way to do a comparative study of the financial health of cities, it is important to interpret the results of such studies in light of the questions asked and the research approach taken. The most important question is "what is meant by financial distress or strain—in other words—what is a fiscal trouble city?" It might be argued that a proper set of indicators of the fiscal viability of a local government would have several characteristics: It would permit comparison with other cities; it would be derived from analysis of both the past and current situation as well as that projected for the future; and it would reflect consideration of the economic and social structure of the local area as well as the financial condition of its governments. More important, it would be based on an underlying theoretical model which would enable evaluation of fiscal health with respect to clearly defined criteria. Though a number of the techniques commonly used address one or more of these issues in some fashion, none incorporates the full range of considerations suggested here. In particular, none of these studies explicitly considers prospects for the future though all seem to contain, however implicitly, some conclusion about future prospects.[69]

Three general avenues of State-local fiscal evaluation have been followed by various analysts: Comparative quantitative analysis; comparative case studies; and credit quality analyses from which bond ratings are derived. In terms of both number of studies and the thought given to defining distress, the comparative quantitative analyses probably have been the most influential.

COMPARATIVE QUANTITATIVE ANALYSIS

The absence of a normative theory of public output has led economists to concentrate their attention on the more positive question of what determines municipal expenditure, revenue, and debt levels. From this concern has grown a series of studies which attempt to find a statistical relationship between these fiscal outcome indicators and the social, economic, and demographic characteristics of the community.[70]

The cross-section fiscal distress studies are a second cousin of the traditional expenditure determinants literature. They make some assumption, often implicit, about the determinants of high and rising expenditure requirements and low or falling revenue yield, e.g., large concentrations of poor families, low per capita incomes, and declining populations. The analysis then involves determining outliers in terms of each of these indicators of need or capacity and somehow combining these to derive an overall measure of fiscal strain or distress. The answer one gets, however, depends on the sample of cities chosen for

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[69] We have considered these criteria at some length in Roy Bahl and Bernard Jump, Jr., "Measuring the Fiscal Viability of Cities," in *Fiscal Choices*, ed. by George Peterson (Washington, D.C.: The Urban Institute, forthcoming).

[70] For recent reviews of these studies, see Roy Bahl, Marvin Johnson and Michael Wasylenko, "State and Local Government Expenditure Determinants: The Traditional View and a New Approach," in *Public Employment and State and Local Government Finances*, ed. by Roy Bahl, Jesse Burkhead and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger Publishing Co., 1980); and Robert Inman, "The Fiscal Performance of Local Governments: An Interpretative Review," in *Current Issues in Urban Economics*, ed. by Peter Mieszkowski and Mahlon Straszheim (Baltimore, Maryland: Johns Hopkins University Press, 1979), pp. 270-321.

the comparison, the variables included in the analysis, the method used to estimate an index and the cutoff index selected for "distress." [71]

The samples have varied widely depending on the purposes of the analysis. In analyzing relative economic strength of urban areas, Nathan and Adams[72] studied Standard Metropolitan Statistical Areas (SMSAs) with populations over 500,000 and Nathan and Fossett [73] studied the 55 largest cities. In research pointed more to analyzing fiscal stress, Clark has been studying a sample of 57 cities of varying sizes [74] while Touche-Ross analyzed a nonrandom sample of 66 cities.[75] The Institute for the Future studied a random sample of 40 cities with populations over 100,000 and 100 cities with populations between 25,000 and 100,000.[76] The most comprehensive study was done by HUD and included all United States cities with populations above 50,000.[77] Since distress in each of these studies is measured by a deviation from some sample average, the findings are not strictly comparable. For example, the "normal" values, the variances and therefore the findings of the Touche-Ross study might have been altered drastically if Pueblo, Colorado; Daly City, California; and St. Petersburg, Florida (included in their sample) had been replaced by New York City, Detroit, and Newark (not included in their sample).

Another comparability problem relates to the choice of variables included to measure hardship or distress. Particularly important is whether the indicators are of current condition (e.g., per capita income) or of changes in financial condition (percent increase in per capita income). For example, an index can show more 'distress' in the older Northeastern cities if it begins by assuming that age of housing is an important indicator of distress. A CBO survey of these studies describes a wide variation in the variable choices made, hence, a substantial comparability problem.[78]

There is much less difference in the methods used to calculate the index. Most studies have standardized each variable (made it independent of units of measurement) by expressing it as a percent of the mean or the minimum value and then derived the index as a mean of the standardized variables.[79] After ranking cities by these indexes, there remains the problem of determining which are the outliers which will be labeled "distressed." The choice is arbitrary, some infer that it is the top two quintiles.[80] Others define it in terms of some number of standard deviations above or below the mean.[81]

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[71] A good analysis and critique of fiscal distress studies is Office of State and Local Government Finance, U.S. Treasury, "Responsiveness of State/Federal and Direct Federal Aid to Distressed Cities," Research Note IV, 1979.

[72] Nathan and Adams, "Understanding Central City Hardship."

[73] Richard Nathan and James Fossett, "Urban Conditions: The Future of the Federal Role," *Proceedings of the National Tax Association (1978)* (Columbus, Ohio: National Tax Association, 1979), pp. 30–41.

[74] Terry Clark, *et al.*, "How Many New Yorks? The New York Fiscal Crisis in Comparative Perspective," Report No. 72 of the Comparative Study of Community Decision-Making (Chicago: University of Chicago, 1976).

[75] Touche-Ross and Company and the First National Bank of Boston, "Urban Fiscal Stress: A Comparative Analysis of 66 U.S. Cities" (New York: Touche-Ross and Company, 1979).

[76] Gregory Schneid, Hubert Lipinsky and Michael Palmer, "An Alternative Approach to General Revenue Sharing: A Needs Based Allocation Formula" (Washington, D.C.: Institute for the Future, June 1975).

[77] Harold Bunce, "An Evaluation of the Community Development Block Grant Formula" (Washington, D.C.: U.S. Department of Housing and Urban Development, December 1976).

[78] Congressional Budget Office, "City Need and the Responsiveness of Federal Grants Programs" (Washington, D.C.: Government Printing Office, Auguts 1978).

[79] Two exceptions are the Institute for the Future and HUD where a factor analysis was used to standardize and combine the variables. See Schmid, Lipinsky and Palmer, "An Alternative Approach to General Revenue Sharing: A Needs Based Allocation Formula," 1975; and Bunce, "An Evaluation of the Community Development Block Grant Formula." 1976.

[80] Nathan and Fossett, "Urban Conditions—The Future of the Federal Role."

[81] Touche-Ross and Co., "Urban Fiscal Distress: A Comparative Analysis of 66 U.S. Cities," 1979.

Despite these very great differences in approach, there is some consistency in the findings of these studies. The comparison of outliers in six studies in Table III–4 shows 14 cities as "distressed" in more than one of these studies.[82] All except Washington, D.C. are located in the Northeast and industrial Midwest regions. The most comprehensive of the fiscal needs studies, the HUD analysis, resulted in a higher needs index for Northeastern cities than for cities in any other region. The highest needs index found for that study was for Northeastern cities with populations greater than 500,000.[83] Similarly, Nathan's hardship index is higher for Northeast cities than for any other region.

TABLE III–4.—COMPARISONS OF DISTRESSED CITIES IN SELECTED STUDIES

Criteria	Nathan and Adams: Top 2 deciles	Nathan and Fossett: Top 2 deciles	Cuciti: High social economic or fiscal need	Institute For the Future: 5 cities scoring highest fiscal need	HUD: 5 cities scoring highest on needs index	Dearborn: Cumulative budget deficits
Newark	X	X	X	X		
Cleveland	X	X	X			
Hartford	X					
Baltimore	X		X	X		
Chicago	X					
St. Louis	X	X	X	X		
Atlanta	X					
Rochester	X					
Gary	X		X			
Dayton	X					
New York	X		X		X	X
Buffalo		X	X			X
Pittsburgh		X	X			X
Boston		X	X		X	
Detroit		X	X			
Philadelphia		X	X	X		X
Minneapolis		X				
Washington, D.C.			X		X	
Jersey City			X			
Chicago			X			
Birmingham			X			
Miami			X			
New Orleans			X			
Atlantic City				X	X	
Cambridge, Mass.					X	X
Milwaukee						X
Columbus						X
Seattle						
Tampa						

Sources: Richard Nathan and Charles Adams, "Understanding Central City Hardship," Political Science Quarterly 91 (1) (Spring 1976): 47–62; Nathan and James Fossett, "Urban Conditions—The Future of the Federal Role," "Proceedings of the National Tax Association, 1978; Gregory Schneid, Hubert Lipinsky, and Michael Palmer, An Alternative Approach to General Revenue Sharing: A Needs Based Allocation Formula (Washington, D.C.: Institute for the Future, June 1975); Harold Bunce, An Evaluation of the Community Development Block Formula (Washington, D.C.: U.S. Department of Housing and Urban Development, December 1976); and Philip Dearborn, The Financial Health of Major U.S. Cities in Fiscal 1977, First Boston Corp., 1978.

Some studies, more limited in their coverage, reach slightly to dramatically different conclusions. Kaplan, Gans and Kahn have noted that using the Nathan indicators and sample, New Orleans, Louisville, Miami and Atlanta can rank as "worse" than New York, Boston, and Philadelphia [84] under various definitions of distress.

[82] This by no means exhausts the list of fiscal distress studies. See, for example, Linn Brown and Richard Syron, "Cities Suburbs and Regions," *New England Economic Review* (January–February 1979): 41–61 and, Advisory Commission on Intergovernmental Relations, "Trends in Metropolitan America" (Washington, D.C.: Government Printing Office 1977).

[83] A special tabulation from the HUD study appears in "City Need and the Responsiveness of Federal Grants Programs," U.S. Government Printing Office: Washington, D.C.: 1978, p. 37.

[84] Marshall Kaplan, "Gans and Kahn, Growth and the Cities of the South: A Study in Diversity" (Washington, D.C.: White House Conference, 1978).

Still, the 13 large Southern cities in their comparison showed an average "urban conditions index" which was more than three times "better" than the five Northeastern cities in their comparison. Clark has studied a smaller sample of 57 cities with a broader population range. His findings are not inconsistent with the findings that the most distressed cities are in the Northeast.[85] The recent study by Touche-Ross, though flawed in many ways, also reaches the conclusion that ". . . the most important financially pressed cities are in the industrially mature Northeast." [86]

Another comparative approach may define a city's well-being not only in terms of other cities but also in terms of its own suburbs. Kasarda has made an interesting case that city fiscal problems are closely tied to an employment sorting-out process where the city has been giving up blue collar and semi-skilled jobs in exchange for fewer white collar, professional jobs but has not had a net inmigration of middle and upper income residents.[87] The resulting effect on the city fisc is more services for commuters, a dwindling tax base, and a higher cost-lower resource base resident population.

Sacks has given an empirical dimension to the disparities issue by tracking city-suburb disparities for a number of years. He has found a consistently greater fiscal, social, and economic disparity in the Northeast and Midwest than in the South and Midwest.[88] His most recent estimates show a continuation of this pattern of disparity for the 1970–1977 period.[89] Cities in the Northeast continue to lose jobs, both in the absolute and relative to their suburbs, and many of those in the Midwest are losing relative to their suburbs. Nearly all Southern and Western cities in Sacks' sample were experiencing employment growth. If anything, city/suburb disparities in employment have been accelerating and the situation has grown relatively worse in the older Northeastern and Midwestern cities. Nathan and Fossett reach the same conclusion in their study the of changing social and economic conditions of cities.[90]

Nathan and Adams have considered these disparities more systematically in developing an index of intercity hardship.[91] They compare city/suburb disparities in unemployment, age distribution of the population, education level, income level, crowded housing, and poverty. The results are not different from above, indeed, the older industrial cities compare even less favorably when city/suburb disparities are considered.

One should resist jumping too quickly to the conclusion that the consensus in these results allows us to identify clearly distressed local

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[85] Clark *et al.*, "How Many New Yorks? The New York Fiscal Crisis in Comparative Perspective," 1976.

[86] Touche-Ross and Co., "Urban Fiscal Distress: A Comparative Analysis of 66 U.S. Cities," p. 109. A good critique of the Touche Ross study is Department of Housing and Urban Development, "The Urban Fiscal Crisis: Fact or Fantasy?" (Washington, D.C.: Office of Policy Development and Research, March 26, 1979).

[87] John Kasarda, "Industry, Community and the Metropolitan Problem," in "Handbook of Urban Life" (New York: Jossey-Bass, 1978).

[88] Advisory Commission on Intergovernmental Relations, "Fiscal Balance in the American Federal System, Vol. II, Metropolitan Fiscal Disparities" (Washington, D.C.: Government Printing Office. 1968); Advisory Commission on Intergovernmental Relations, "Trends in Metropolitan America," 1977; and Seymour Sacks, "Estimates of Current Employment Trends and Related Information for Large Cities," Metropolitan Studies Program (Syracuse, New York: Syracuse University, March 1978).

[89] Department of Housing and Urban Development, "Changing Conditions in Large Metropolitan Areas," Urban Data Reports, Number 1 (Washington, D.C.: Office of Policy Development and Research, June 1979).

[90] Nathan and Fossett, "Urban Conditions: The Future of the Federal Role," pp. 30-41.

[91] Nathan and Adams, "Understanding Central City Hardship," pp. 47-62.

governments and formulate remedial public policy. There are strong arguments that these measures are biased against certain types of cities with certain types of fiscal problems. Southern and Western cities, which have been able to expand boundaries through annexation and consolidation,[92] may seem less distressed because their suburbs are included in comparisons with Northern cities whose suburbs are not included. For this reason, results from comparisons of cities would be an incorrect basis for distributing Federal assistance since it would penalize those cities which have done something about their boundary problems. The comparison of taxable capacity and population characteristics which ought to be made is of metropolitan areas. This would reduce the interregional disparity in economic well-being and expenditure needs; i.e., it would make the distressed cities of the North look less distressed—relative to the rest of the country—than they do now. This would imply a policy that some part of suburban wealth should be reallocated to central cities as a prerequisite to more Federal help.

Even this adjustment, however, would leave the slower growing Northern cities high on the distressed list and the measure would still take a Northern view of distress—that age is a proxy for need, that growth creates fewer problems than decline, and that the *rate* of income growth is more important than the level of income. The "Northern view" is not totally incorrect, but it is flawed and self-serving. The age of housing is not a good proxy for quality—old housing isn't always worse housing and there are not good statistics on the quality of older housing. Likewise, declining population is not necessarily bad because it may lessen fiscal pressures on some jurisdictions; e.g., fewer school age children may provide some breathing space for property tax financing of education. Growth, on the other hand, may be a mixed fiscal blessing because of pressures to expand infrastructure and finance new services.[93]

A third argument against the traditional measures is that there are pockets of poverty in the Houstons and Jacksonvilles which are every bit as bad as those in the North, and where wage rates and public service levels are at great disparity with the rest of the city. Once comparison among areas (rather than cities) is made, this bias is removed. The remaining disparities among residents of the area represent local choices about how to distribute public services, whether to have labor unions, etc. The results of these choices may well be distressing, but they should not be taken into account in measuring distress.

What all of this amounts to is a conclusion that Northern cities are *relatively* less distressed than these studies have shown. They may still be worse off and most in need of Federal assistance during a transition period when they are losing jobs and population, but we have not yet captured this greater need in comparative measures of fiscal distress.

CASE STUDIES

Case studies of local government fiscal viability offer an alternative approach to measuring fiscal distress. They may be detailed and take into account the factors important to a specific city, and they may

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[92] Vincent Marando describes the better record of Southern and Western cities in "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.

[93] A good presentation of the view of "growing" states is in David Peterson, "The Relative Need of States and Regions for Federal Aid," Southern Growth Policies Board, (Research Triangle Park, North Carolina: March 1979.)

consider both the short-term cash flow and long-term economic factors.[94] The short-coming of the case study approach is that it does not easily provide a comparative dimension; i.e., we may be able to determine that Buffalo faces a revenue shortfall for the next three years, but we don't know if it will be worse than Scranton's. Comparative case studies [95] would seem to be the intuitive answer to this dilemma, but a closer look suggests the very great problems with carrying out comparative case studies. A common framework and a clearly delineated model is easily enough formulated, but there are major problems with estimating such a model. The first is that there are substantial data incomparabilities among cities; e.g., financial reports are not uniform and their comparison can be a difficult and tedious job. Second, each city is in some ways unique and any general model would have to be adapted to particular circumstances. Third, and perhaps most important, the cost of good comparative case study work could seem prohibitive.

There can be little question but that a case study approach is necessary to evaluate accurately and project the behavior of the local government fisc, the analysis of aggregate fiscal statistics in the "Census of Governments" misses too many of the specific issues. Yet most case studies lack a well defined and comparable model. A notable exception is the work of Dearborn.[96] He analyzes the financial reports of the 30 largest cities on an annual basis. His analysis is pointed to the short-term financial position of cities—their general fund revenue-expenditure shortfalls, and their liquidity. By this measure of very short-term financial health, his list of cities in financial trouble, or close to the edge, is not substantially different from those presented above (see Table III–4).

MUNICIPAL CREDIT ANALYSIS

Events of recent years have given rise to mounting concern with the ability of particular jurisdictions to service existing debt and to meet other obligations. This may be construed as another way to measure distress, i.e., rating agencies attempt to measure the probability of default. Through the 1960's this was essentially an academic exercise. There was little experience with actual default and an analyst could but use some combination of *a priori* reasoning and judgment to identify State-local governments which were most default prone. The 1974–1975 recession and its aftermath changed all that—the ability of the bond rating agencies and others in the municipals market to sort out the good credits from the bad has received its first significant test in several decades. Though some would argue that it has been found wanting,[97] fairness would require laying the blame on

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[94] For good examples, see Advisory Commission on Intergovernmental Relations, "City Financial Emergencies: The Intergovernmental Dimension" (Washington, D.C.: U.S. Government Printing Office, July 1973); and, David Stanley, "Cities in Trouble" (Columbus, Ohio: Academy for Contemporary Problems, 1976).

[95] For attempts at comparative case studies, see Committee for Economic Development. "Fiscal Issues in the Future of Federalism," Supplementary Paper Number 3 (New York: May 1968); and, Advisory Commission on Intergovernmental Relations, "Fiscal Balance in the American Federal System, Vol. II, Metropolitan Fiscal Disparities," 1968.

[96] Dearborn's initial work on this subject appeared as Advisory Commission on Intergovernmental Relations, "City Financial Emergencies," 1973. During 1977 and 1978 he developed a set of indicators of financial emergencies which were published by the First Boston Corporation, "Elements of Municipal Financial Analysis" (New York: First Boston Corporation, 1978). His most recent extensions of this work appear in "The Financial Health of Major U.S. Cities in 1978", 1979.

[97] New York City is the best known example. Both Standard & Poors and Moodys raised New York City's rating to A in 1973 despite what all observers now concede was a drastic deterioration in the economic and fiscal condition of the City.

the failure of policy analysts of all colors to develop acceptable measures of fiscal stress and on governments for not providing adequate data for such purposes. Important recent strides have been made, but credit analysis has not yet provided a strong analytic method for identifying fiscal distress.

The bond rating process is very similar to the comparative quantitative analysis discussed above. Governments are compared and ranked by various measures, and outliers are identified. However, instead of being labeled "distressed" as in a scholarly study, they are given a lower credit grade (e.g., BBB) and face a higher borrowing cost in the market. Ironically, when a definitive distress measure is developed, it will likely be used by the Federal Government to reward distressed governments with higher grants and by the rating agencies to penalize them with higher interest costs.[98]

Until very recently, the analytic techniques used by the major rating agencies and other municipal analysts had not been articulated.[99] Historical analyses suggested that the most important determinant of credit rating differences was the level of debt burden relative to taxable capacity.[1] The more recent view seems considerably more enlightened, e.g., Standard & Poors notes in its *Rating Guide* that "We consider an issuer's economic base the most critical element in the determination of a municipal bond rating." [2]

It is interesting to note that the debt burden variable, which is still of major import in determining credit risk, would not lead to the conclusion that Northeastern cities are any more troubled than other cities. Indeed, Southern and Midwestern cities show the highest levels of debt outstanding relative to general revenues.[3] Aronson and King have further argued using time series of various indicators of debt burden that while the New York City fiscal crisis was predicatable, ". . . when these same ratios and their standard deviations are calculated for the aggregate of State and local governments excluding New York State and its local governmental units, no dangerous trends are apparent."[4]

The Current Fiscal Performance of Large Cities

Comparative analysis always produces outliers which may be labeled distressed. Not withstanding the debate about which are the "proper" variables in such comparisons, it is a fact that some cities are fiscally better off than others and that some are at the edge of financial insolvency. A third approach to evaluating fiscal health is to examine the financial condition and current performance of State and local governments, a topic to which we now turn. Can one find evidence of distress in the recent taxing, spending and borrowing decisions of State and local governments?

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[98] The concept of a bond rating as a tax or negative grant on local government is developed in Patrick Sullivan, "Municipal Bond Ratings Viewed as Implicit Grant/Tax Mechanisms," Occasional Paper No. 30-Metropolitan Studies Program, The Maxwell School (Syracuse, NY: Syracuse University, November 1976).

[99] Both Standard & Poors and Moodys have recently described their rating procedures and systems. See Standard & Poors Ratings Guide (New York: McGraw-Hill, 1979); and Wade Smith, "The Appraisal of Municipal Credit Risk" (New York: Moody's Investor Service, 1979).

[1] These analyses are surveyed and further evidence is presented in Roy Bahl, "Measuring the Credit worthiness of State and Local Governments: Municipal Bond Ratings," *National Tax Association, Proceedings of Sixty-Fourth Annual Conference* (1972), pp. 600–622. See also John E. Petersen, *The Rating Game*, Report of the Twentieth Century Fund Task Force on Municipal Bond Credit Ratings (New York: The Twentieth Century Fund, 1974).

[2] Standard & Poors, Ratings Guide, p. 260.

[3] "City Need and the Responsiveness of Federal Grant Programs," p. 32.

[4] J. Richard Aronson and Arthur E. King, "Is There a Fiscal Crisis Outside New York?" National Tax Journal, Vol. 31, No. 2 (June 1978), p. 161.

One way to begin an evaluation of the recent fiscal performance of State and local governments is to raise the question about why things have not been worse. Since the bottom of the 1974–75 recession, Cleveland, Wayne County, and the Chicago Schools have followed New York City to the point of being unable to meet debt service commitments. Otherwise, there have been no more New Yorks in the sense of major defaults, Federal emergency loan guarantees or the other trappings that accompany the collapse of a city's financial operations. Certainly, no State government has faced a financing problem so severe as that faced by New York State in 1975. Somehow, in the face of declining economic base, inflation, and rising public employment costs, states and cities have managed to stave off the ultimate financial crisis.

It is important to understand the reasons why this current performance is not more dismal and whether this condition is more permanent than temporary. The most important of the compensating factors, which have allowed many of even the most distressed cities to remain solvent, are national economic recovery, increased Federal assistance, and deferred expenditures. In the sections below we consider these factors in terms of their contribution to the favorable financial performance of cities in the past few years, and in terms of whether they might continue to shore up the financial position of these governments.

ECONOMIC RECOVERY

The recovery of the national economy, with lower rates of both inflation and unemployment, played an important role in maintaining the fiscal viability to State-local governments between 1975 and 1980. From a low of 7.2 percent in the recession (fiscal year 1975), per capita State government revenues registered annual increases of 10.5 (fiscal year 1976), 12.4 (fiscal year 1977) and 11.1 (fiscal year 1978) percent. Local governments show a similar pattern of bouyancy through the 1977 fiscal year (see Table III–5). This is a direct result of real GNP growth rates in the 4 to 6 percent range for three years following the 1975 decline in real GNP.

While this strong economic performance helped State and local governments everywhere, it should be pointed out that some regions of the country benefitted far more than others. The Northern Tier of states experienced a slower rate of income and employment growth than the Southern Tier and a corresponding slower rate of growth in aggregate State-local government revenues. Everyone got a little well during the recovery, but some regions got a lot better than others.[5]

A similar picture emerges when the economic and fiscal performance of large cities is examined. Even with the strong recovery, many central cities have not regained former levels of economic activity as rapidly as have suburban areas, and cities in the Northeast and industrial Midwest have recovered more slowly than cities in other parts of the country. This unbalanced growth is not widely appreciated and its fiscal implications have not been carefully considered.

There are a number of *a priori* reasons why core areas do not share equally in national growth during periods of recovery. During a recession, firms tend to reduce activities relatively more where operat-

[5] See Table 18, Chapter V.

TABLE III-5.—COMPARISONS OF STATE AND LOCAL GOVERNMENT FISCAL ACTIVITY, 1969-78

Average annual percent increase in—	1969–74	1974–75	1975–76	1976–77	1977–78
Per capita total expenditures:					
State governments	10.3	15.8	10.2	7.2	7.8
Local governments	10.1	13.9	10.7	5.3	7.1
Municipalities	9.0	11.4	11.0	3.2	----
Per capita current expenditures:					
State governments	12.9	17.0	11.9	10.5	10.8
Local governments	10.9	12.8	12.5	7.2	7.9
Municipalities	9.5	9.7	14.5	5.5	----
Long-term debt outstanding:					
State governments	9.8	9.5	16.0	11.2	13.4
Local governments	7.2	4.4	6.8	9.8	7.0
Municipalities	5.5	4.5	11.3	7.7	----
Employment:					
State governments	4.0	3.4	2.0	3.7	2.2
Local governments	3.8	2.1	.8	2.6	1.9
Municipalities	2.7	.7	−1.7	1.6	1.0
Employee compensation:					
State governments	11.0	10.0	9.2	10.6	8.8
Local governments	10.8	9.5	6.8	8.2	7.1
Municipalities	10.7	7.3	5.0	6.7	6.2
Per capita tax revenues:					
State governments	11.1	7.2	10.5	12.4	11.1
Local governments	9.2	7.6	9.3	9.9	6.6
Municipalities	6.9	5.8	9.6	11.7	----

Source: U.S. Department of Commerce, Bureau of the Census, "Governmental Finances in 1968-69, 1973-74, 1975-76, 1976-77, 1977-78"; U.S. Department of Commerce, Bureau of the Census, "Public Employment in 1978"; U.S. Department of Commerce, Bureau of the Census, "City Government Finances in 1968-69, 1973-74, 1974-75, 1975-76, 1976-77," (1977-78 not yet available).

ing costs are higher and where physical plant is oldest (i.e., in declining regions generally and in central cities specifically). The process doesn't reverse itself during the recovery. Plant and employment expansions tend to occur where comparative costs are lowest—in the growing regions, suburbs, and nonmetropolitan areas. The same pattern appears true with respect to the birth and death of firms.[6] Firms die rapidly in suburbs during recession, but new firms open more rapidly in suburbs during recovery. As a result, one would expect central city areas to suffer greater employment losses during a recession and make less employment gains during a recovery than suburban areas. The problem of central city failure to recover is multiplied by a location in the Northeast or industrial Midwest, where plant is oldest, energy is more costly and labor costs and taxes tend to be high.

Unfortunately, any discussion about central city economic performance during the recovery must be heavily speculative. There simply are not adequate data covering the 1975–1979 period that would enable one to track the changes in central city employment and income through the most recent recession and the subsequent recovery. Available data for the 1975–77 period show that "distressed" cities fared worse in the early part of the recovery than did the rest of the Nation. Of cities which are typically on the distressed lists, (and which are city-counties),[7] only St. Louis had an employment growth above

[6] David Birch's reading and analysis of the Dun and Bradstreet establishment data are that much of the regional shift in employment is a result of the greater birth rate of firms in the growing regions. See David Birch, "The Job Generation Process," Economic Development Administration, U.S. Department of Commerce (Washington, D.C.: Government Printing Office, 1979). That suburbs are in effect "growing regions" seems clear from Sacks' analysis in "Estimates of Large Metropolitan Areas," Urban Data Reports, Number 1 (Washington, D.C.: Department of Housing and Urban Development, 1980), Table 24.

[7] The data in Table III-6 describe only cities which are coterminous with their county boundaries. Employment data are not available for the subcounty unit. In one sense the comparisons in Table III-6 may overstate the performance of central cities during the recovery because these data include the entire county. On the other hand, only covered employment is counted, hence, this is only approximately a measure of private sector growth. One should be careful not to use these data for any purpose other than *comparing* growth rates. Even then, findings should be reported with the greatest of care.

the national average (see Table III–6). In nearly every case, the central city share of metropolitan area employment declined. Perhaps more interesting is the difference between the 1976 and 1977 economic performance. In the latter, a stronger year nationally, 6 of the 10 had employment declines, and of those with positive growth rates, only Denver's economy performed better in 1977 than in 1976. Data for 1978 will reveal whether these setbacks were temporary or whether the effects of the recovery played out earlier in large central cities than in the rest of the country.

Sacks' aforementioned estimates for city employment (by place of employment) paint an even more dismal picture. Of 15 large Northeastern cities for which he has made estimates, 14 had employment declines between 1970 and 1977. This may be compared with 8 of 20 Mideastern cities, 12 of 25 Southern cities and 4 of 20 Western cities.[8]

The upshot of this discussion is that while national recovery has helped the State and local government fiscal position, some cities—those typically thought of as already distressed—have benefited less than proportionately. These same cities were hurt most during the last recession, hence over the business cycle their competitive position has weakened. There are signs that such cities had gained about all they could from the recovery and have been experiencing private sector employment reductions in the past year. The fiscal prospects for cities which have economies which are hurt most by recession and helped least by recovery are not bright, especially in light of the likely performance of the U.S. economy over the next five years.

FEDERAL AID

A major reason why the finances of large central cities have performed above what might have been expected since 1975 is the massive inflow of direct Federal aid. By 1977, direct Federal grants accounted for as much as one-third to one-half of the financing of total current expenditures as did revenues raised from own sources (see Table III-7). Much of this increase in direct aid was the Administration's Economic Stimulus Package, the key elements of which were anti-recession Fiscal Assistance (ARFA), Local Public Works (LPW), and Public Service Employment (CETA). Though substantial in amount, the stimulus package is only a part of the long-term growth in Federal assistance to State-local governments. Federal grants increased through 1978 in total, as a share of the Federal budget and as a percent of total State-local government expenditures.[9] However, a turning point seems to have been reached with the phasing down of the stimulus program between 1978 and 1980. The funding for these programs has been reduced from over $9 billion in fiscal year 1979 to less than $3 billion in fiscal year 1980.

This trend does not auger well for cities, particularly those which might be labelled "distressed". They stand to lose in at least two ways. First, reductions in the flow of direct grants will seriously compromise the revenue position of some cities. Second, reductions in the overall flow of grants to State-local governments will increase pressures on State government resources which will in turn compromise their ability

[8] Sacks, "Estimates of Large Metropolitan Areas," 1980.
[9] See ch. 11, table II-2.

TABLE III-6.—EMPLOYMENT GROWTH IN 10 METROPOLITAN CENTRAL CITIES, 1965-77 [1]

City/county	Percent change						Central city/SMSA [2] employment ratio					
	1965-72	1972-73	1973-74	1974-75	1975-76	1976-77	1972	1973	1974	1975	1976	1977
Baltimore	4.0	1.7	−9.5	−6.4	−3.1	−2.1	59 6	58.4	51.5	53.3	49.2	46.8
Denver	37.4	8.2	−7.4	−4.8	2.1	5.8	63.9	62.7	55.5	54.8	53.8	52.9
Indianapolis (Marion County)	15.9	6.4	2.1	−5.0	3.9	2.9	87.1	88.0	86.9	87.3	85.6	85.4
Jacksonville (Duva County)	37.6	8.0	5.8	−6.4	−.9	−1.5	92.1	91.5	91.1	90.2	89.4	88.2
Nashville (Davidson County)	32.3	8.1	4.4	−5.1	5.5	3.3	78.7	78.9	77.0	77.9	77.2	76.4
New Orleans	10.8	2.0	−10.2	−4.0	2.1	−.4	73.3	71.4	62.3	61.3	60.3	58.2
New York City [3]	.2	−.5	−3.6	−5.9	−1.3	−4.3	78.0	83.8	82.2	81.9	81.4	79.4
Philadelphia	−.6	1.0	−3.2	−8.0	−1.3	−4.2	49.6	48.4	44.7	43.3	42.4	40.5
St. Louis	−1.9	1.7	−7.4	−11.5	12.1	5.4	46.4	45.6	41.3	38.5	41.4	42.9
San Francisco	10.3	2.2	15.2	−5.0	3.8	−2.1	39.9	38.7	45.6	41.0	41.0	38.9
United States	21.5	7.0	2.3	−4.6	3.4	3.9						

[1] Includes only covered employment.
[2] 1975 SMSA boundaries were used for all years.
[3] New York City includes New York, Bronx, Queens, Kings, and Richmond Counties.

Source: U.S. Bureau of the Census, "County Business Patterns;" U.S. Government Printing Office, Washington, D.C.

TABLE III-7.—DIRECT FEDERAL AID AS A PERCENT OF OWN-SOURCE GENERAL REVENUE: SELECTED CITIES AND FISCAL YEARS 1957-78

City	Fiscal years					Per capita Federal aid		
	1957	1967	1976	1977	1978 estimate	1976	1977	1978 estimate
St. Louis	0.6	1.0	23.6	27.5	56.1	$86	$109	$228
Newark	.2	1.7	11.4	31.9	64.2	47	137	291
Buffalo	1.3	2.1	55.6	87.6	75.9	163	283	239
Cleveland	2.0	8.3	22.8	56.9	60.3	65	145	190
Boston	(1)	10.0	31.5	21.4	30.2	204	175	219
Unweighted average	.8	4.6	29.0	45.1	57.3	113	170	233
Baltimore	1.7	3.8	38.9	45.5	46.4	167	202	225
Philadelphia	.4	8.8	37.7	30.1	53.8	129	135	204
Detroit	1.3	13.1	50.2	46.7	76.8	161	160	274
Chicago	1.4	10.9	[2] 19.2	30.2	42.1	47	78	117
Atlanta	4.3	2.0	15.1	13.9	40.0	52	50	167
Unweighted average	1.8	7.7	32.2	33.3	51.8	111	125	197
Denver	.6	1.2	21.2	21.1	25.9	90	104	150
Los Angeles	.7	.7	19.3	24.3	39.8	54	75	134
Dallas	0	(1)	20.0	15.8	17.8	51	45	54
Houston	.2	3.1	19.4	14.4	23.8	44	38	71
Phoenix	1.1	10.6	35.0	37.9	58.7	57	73	117
Unweighted average	.5	3.1	23.0	22.7	33.2	61	67	105
Unweighted average of 15 cities	1.1	5.2	28.1	33.7	47.5	95	121	179

[1] Less than 0.5 percent.
[2] Percentage based on Federal aid excluding general revenue sharing. Funds withheld pending judicial determination.

Source: The 1957, 1967, 1976, and 1978 estimates are ACIR staff computations based on U.S. Bureau of the Census, "City Government Finances in 1957, 1967 and 1976." Estimated city own-source general revenue for 1978 based on annual average increase between 1971 and 1976. Direct Federal grants to each city for fiscal 1978 based on (a) ACIR staff estimates of the Federal stimulus programs for 1978 and (b) Richard Nathan's estimates for all other Federal aid in fiscal 1978 as set forth in his testimony before the Joint Economic Committee on July 28, 1977. (As reported in "Intergovernmental Perspective," winter 1976.) Computations for 1977 were made by the author from "City Government Finances in 1977."

to finance services provided in urban areas. The prospects are for fewer resources to flow to cities from higher level governments in the next half decade and certainly for less reliance on Federal aid relative to all other revenue sources. The longer term effect will be a slower growth in per capita real local government spending but likely an increasing reliance on State government financing.

DEFERRALS AND CUTBACKS

If New York City spent itself into financial disaster by trying to maintain existing service levels when the revenues were not there, other "declining" cities may have warded off financial problems by cutting back some public programs and deferring expenditures on others. In attempting to explain the fiscal performance of State and local governments during the 1975–1978 recovery period, one might reasonably offer the following hypothesis: In the aftermath of the recession and with the New York City debacle still front page news, fiscal decisionmakers took a very conservative tack in formulating budgets. Public employment roles were reduced either through layoffs or attrition, expenditure increases for new services and for pay raises were minimal, and capital maintenance and construction expenditures were being deferred.

If some support for this hypothesis can be read from the growth rate in per capita expenditures of State and local governments during the 1975–1978 period, the retrenchment argument would appear to hold water. As is shown in Table III–5, local governments cut the rate of growth in per capita spending by nearly 40 percent between 1975 and 1978 while municipalities reduced their rate of increase in per capita expenditures by two thirds between 1975 and 1977.

Employment growth.—The evidence on employment deferrals is not completely clear. As may be seen from Table III–5, the rate of public employment increase has fluctuated at the State and local government level since 1975, but has not regained the growth rates of the 1969–1974 period. One could view this as evidence of greater austerity, yet with a slower national population growth it might also be seen as an unwarranted increase. It seems clear that for the entire State and local government sector employment growth has slowed, but not markedly.

Public employment retrenchment appears to have been much more the case for the Nation's 20 largest cities. Between 1975 and 1977, there were absolute declines in city government employment in 10 of the 20 largest cities and increases of less than 1 percent in 3 of the remaining 10 (see Table III–8). These reductions may signal a cutback in services offered—to the extent public service and public employment levels vary proportionately. On the other hand, this may also be a salvation to city budgets, i.e., downward adjustments in employment may cushion the public employee wage increases which surely lie ahead.

Employee compensation growth.—There appear to have been some cases of public employee compensation deferrals in the aftermath of the recession, but available data will not carry very broad generalizations. The slowest rates of increase in employee compensation are at the municipal level, both by comparison with the 1960–1974 period and by comparison with other State and local governments. The comparisons in Table III–8 show that payroll per employee grew at or above the inflation rate for many of the largest cities during the 1975–1977 period,[10] but since employment was declining in many cities it may

[10] The CPI rose by 9.2 percent in calendar 1975, 5.7 percent in 1976 and 6.5 percent in 1977. If we take the average of the 1975 and 1976 CPI increases to estimate roughly the rate of inflation for FY 1975–76, and perform a similar computation for 1976–77, we find that 10 of the 20 cities gave compensation increases to public employees at rates less than the general price level increase.

not be concluded that compensation increases were *not* deferred. To the extent that governments add fewer new employees or even affect reductions in work force size, this is likely to have a disproportionate impact on younger, lower paid employees. By the nature of arithmetic averages, it is quite possible to reduce workforce size and to grant no wage increases to remaining employees and still end up with a higher average wage for the workforce.

TABLE III-8.—INDICATORS OF FINANCIAL PERFORMANCE: 20 LARGEST CITIES IN 1975-77

	Current expenditures	General obligation debt outstanding	Employment	Payroll per employee	Taxes
Baltimore	14.8	0.5	−9.6	−1.0	8.6
Boston	25.3	22.3	.2	26.8	33.0
Cleveland	8.7	40.4	−14.6	−3.7	6.0
Chicago	22.5	6.8	−6.9	11.9	10.0
Dallas	25.4	−2.8	.5	14.4	18.7
Detroit	10.7	−7.3	16.7	27.2	14.4
Honolulu	41.9	16.3	15.1	38.9	16.9
Houston	50.1	20.8	10.5	26.3	34.3
Indianapolis	28.5	5.7	−.1	13.1	15.0
Los Angeles	18.3	16.6	−3.1	4.7	22.9
Memphis	25.3	44.7	−25.7	−11.8	18.6
Milwaukee	18.9	6.5	−3.8	10.4	4.1
New Orleans	25.9	−.7	18.8	58.7	15.2
New York	9.2	36.4	−10.7	−1.3	24.3
Philadelphia	17.2	26.1	−.6	10.1	44.7
Phoenix	25.0	25.0	17.5	32.6	26.9
San Antonio	43.0	57.7	3.5	18.0	19.8
San Diego	17.7	−8.2	2.8	13.9	30.8
San Francisco	10.5	41.2	.7	6.5	33.7
Washington, D.C	18.6	36.8	−1.5	14.6	35.9

Source: U.S. Department of Commerce, Bureau of the Census, "City Government Finances in 1974-75, 1976-77; U.S. Department of Commerce, Bureau of the Census, "City Employment in 1975; 1977."

The evidence for compensation increases for the entire State and local government sector may better the information on the deferral hypothesis. Such comparisons of average annual wages and salaries do suggest a pattern of deferral—wage increases in the public sector have lagged behind those in the private sector since the beginning of the recession in 1973 (see Table III-9). Moreover, average State and local government wages have kept pace with the CPI in only one year since 1973.

The picture is reversed for supplements to wages and salaries. State and local government employees have enjoyed increases well above those in the private sector and above the rate of inflation since 1973 (see Table III-10). Since a large portion of supplements is retirement cost, this may also constitute a form of deferral from the point of view of the city budget.

Deferred capital investment.—A politically convenient and administratively expedient way to pare expenditure programs is to postpone capital project investments or to defer maintenance on the existing capital stock. Capital spending cutbacks require no bargaining with unions and (sometimes) no major hassle with public interest groups, and can be carried out quickly and without major layoffs. Hence, when the budget situation becomes tight and cutbacks are necessary, capital project postponement usually stands somewhere higher in the pecking order than employee layoffs and lower wage rate increases. During the last decade, with inflation driving up public sector costs

TABLE III-9.—AVERAGE ANNUAL WAGES AND SALARIES PER FULL-TIME EQUIVALENT EMPLOYEE BY INDUSTRY, 1962-78

Year	All industry	Private industry	Federal civilian	State and local government
1962	$5,064	$5,082	$6,239	$5,017
1972	8,760	8,590	12,679	8,916
1973	9,290	9,106	13,497	9,505
1974	9,991	9,832	14,112	10,063
1975	10,835	10,677	15,194	10,842
1976	11,600	11,450	16,228	11,570
1977	12,382	12,250	17,481	12,245
1978	13,275	13,161	18,948	12,966
Average annual growth rates (percent):				
1962-72	5.6	5.4	7.4	5.9
1972-73	6.1	6.0	6.5	6.6
1973-74	7.5	8.0	4.6	5.9
1974-75	8.4	8.6	7.7	7.7
1975-76	7.1	7.2	6.8	6.7
1976-77	6.7	7.0	7.7	5.8
1977-78	7.2	7.4	8.4	5.9
Average growth per 1-percent increase in CPI (percent):				
1962-72	1.7	1.6	2.2	1.8
1972-73	.98	.97	1.05	1.06
1973-74	.68	.73	.42	.54
1974-75	.92	.95	.85	.85
1975-76	1.22	1.24	1.17	1.16
1976-77	1.03	1.08	1.18	.89
1977-78	.95	.97	1.11	.78

[1] Calendar years.

Sources: U.S. Department of Commerce, Office of Business Economics, "The National Income and Product Accounts of the United States, 1929-65," tables 6.2 and 6.4. "Survey of Current Business," July 1976, July 1977, and July 1979, tables 6.6, 6.8, 6.9.

and two recessions creating uncertainties about future revenue growth, the budget position and outlook was tight enough to prompt such deferrals. In fact, capital expenditures of State and local governments have declined in real terms and as a share of the total budget. Peterson reports that gross capital investment has fallen from 29 percent of total State and local spending in 1965 to 14 percent in 1977.[11]

While some of this decline might be attributed to the near completion of the interstate highway system, much of it would appear to be due to the postponement of capital project investments and the deferral of maintenance and renovation. Such deferrals have made the financial position of State-local governments appear stronger than it is; i.e., what is the meaning of an annual budget surplus in a case where necessary capital expenditures have been put off? We can't answer this question other than by relying on cliches to imply that some governments with low levels of capital spending may have their debt in the streets, and impressionistic evidence about the inadequacies of the existing capital stock.

We can, however, guess that the postponement and deferral of capital renovation and maintenance do not have the same undesirable effects in every State and local area. Indeed, capital replacements can be put off and renovation cycles extended, apparently without causing cities to crumble. However, the older the capital stock the more likely are these effects to cut into public service levels and economic development efforts. One would suspect that the slowdown in capital spending would create particularly severe capital obsolescence problems for older cities. The implication of capital deterioration

[11] George Peterson, "Capital Spending and Capital Obsolescence: The Outlook for Cities," in *The Fiscal Outlook for Cities*, ed. by Roy W. Bahl (Syracuse, New York: Syracuse University Press, 1979).

in these cities, which tend to be the more financially pressed in any case, is that the reported budgetary position overstates their financial health. In essence, a part of their budgetary balance is carried in the form of a gap between the "necessary" and actual condition of the local capital stock. We might add to our knowledge of fiscal distress if we could identify and rank governments according to how much they have deferred capital expenditures and according to the current condition of their capital stock.

TABLE III-10.—AVERAGE ANNUAL SUPPLEMENTS TO WAGES AND SALARIES PER FULL-TIME EQUIVALENT EMPLOYEE BY INDUSTRY, 1962–76[1]

Year	All industry	Private industry	Federal civilian	State and local government
1962	$471	$482	NA	$481
1972	1,124	1,150	$1,497	1,110
1973	1,298	1,331	1,689	1,248
1974	1,460	1,485	2,006	1,437
1975	1,683	1,707	2,440	1,655
1976	1,927	1,941	2,788	1,951
1977	2,176	2,179	3,100	2,298
1978	2,418	2,414	3,313	2,619
Average annual growth rates (percent):				
1962–72	9.1	9.1	NA	9.9
1972–73	15.5	15.7	12.8	12.4
1973–74	12.5	11.6	18.8	15.1
1974–75	15.3	14.9	21.6	15.2
1975–76	14.5	13.7	14.3	17.9
1976–77	12.9	12.3	11.2	17.8
1977–78	11.1	10.8	6.9	14.0
Average growth per 1-percent increase in CPI (percent):				
1962–72	2.8	2.8	NA	3.0
1972–73	2.5	2.5	2.1	2.0
1973–74	1.1	1.1	1.7	1.4
1974–75	1.7	1.6	2.4	1.7
1975–76	2.5	2.4	2.5	3.1
1976–77	2.0	1.9	1.7	2.7
1977–78	1.5	1.4	.9	1.8

[1] Calendar years.
NA=Data not available.

Sources: U.S. Department of Commerce, Office of Business Economics, "The National Income and Product Accounts of the United States, 1929–65," tables 6.4 and 6.7. "Survey of Current Business," July 1976, July 1977, and July 1979, tables 6.5, 6.6, and 6.8.

Unfortunately, few State or local governments do any kind of accounting that would enable a tracking of the quality of the local infrastructure, and therefore "serious" capital obsolescence problems are not easily identified. Some idea of the magnitude of the problem might be gained from a series of recent case studies. Two studies of the condition of the New York City infrastructure indicate a substantial deficit, and one that is far beyond the city's financial capacity.[12] The city recently established a 10 year, $12 billion capital improvement program, but even this would appear modest in that it is based on assumptions that the city will reenter the securities market after 1982, that current levels of Federal capital aid will continue during the decade and that costs will escalate at no more than 5 percent per year. The real price tag on New York City's capital improvement plan is likely to be far larger than the $12 billion. Infrastructure deficits of this size do not appear overnight, but there seems little question that recent deferrals accentuated the problem.

[12] "The Condition of Urban Infrastructure in the New York-New Jersey Region: A Survival Issue for the 1980s" (New York: The Port Authority of New York and New Jersey, May 1979); and David A. Grossman, "The Future of New York City's Capital Plant" (Washington, D.C.: The Urban Institute, 1979).

Grossman points out the extent to which capital investment and maintenance expenditures were cut disproportionately more in the aftermath of the crisis—between 1974 and 1978, New York City's annual capital appropriations fell by nearly 70 percent.[13]

The Urban Institute studies of Cleveland,[14] Cincinnati,[15] and Dallas[16] provide some further but mixed evidence on the deferral question. Cleveland certainly fits the pattern with a badly deteriorated capital stock and declining real capital spending since 1968. The estimated backlog in needed basic improvements to its infrastructure system is $700 million;[17] i.e., nearly twice the level of total current expenditures. As in the case of New York City, Cleveland's infrastructure problems have been long in the making, but have been helped along by recent deferrals. During the 1972–1977 fiscal crisis period for the city, maintenance expenditures grew by 89 percent as compared to 151 percent for total current expenditures to 162 percent for total spending.[18]

Dallas and Cincinnati provide stories of more success with maintaining capital stock. Dallas is fiscally strong, with a low tax rate and the ability to finance capital projects with a substantially greater Federal assistance share. There was a slowdown in real capital spending after the recession—a deferral—but it could be accommodated because of the newness of the capital stock. Cincinnati presents the opposite picture: an old, declining city that has managed its capital assets carefully. The infrastructure backlog is moderate by comparisons with other older cities, and does not appear to have been compromised by recent spending deferrals.

IV. The National Economy and State and Local Government Finance

More than any other factor, the performance of the national economy will shape the financial health of State and local governments in the 1980's. Slower economic growth, a higher rate of inflation, and recessions or the expectation of recessions all will markedly affect the structure and growth of State and local government budgets. In some cases, inflation and recession will increase budget deficits and push governments a step closer to insolvency, in others the unfavorable budgetary effects will be cushioned by revenue systems which are bouyant with respect to rising prices, and in still others the revenue-dampening effects of slow national growth and recession will be more than offset by the gains brought from regional shifts in economic activity. The nature of these effects, their measurement, and how they differ across State and local governments is the subject of this chapter.

Decisionmakers may not be able to wait for definitive answers on these effects before making policy, but it would seem essential to

[13] Grossman, "The Future of New York City's Capital Plant."
[14] Nancy Humphrey, George Peterson, and Peter Wilson, "The Future of Cleveland's Capital Plant" (Washington, D.C.: The Urban Institute, 1979).
[15] Nancy Humphrey, George Peterson, and Peter Wilson, "The Future of Cincinnati's Capital Plant" (Washington, D.C.: The Urban Institute, 1979).
[16] Nancy Humphrey, George Peterson, and Peter Wilson, "The Future of Dallas' Capital Plant" (Washington, D.C.: The Urban Institute, 1979).
[17] Humphrey, Peterson and Wilson, "The Future of Cleveland's Capital Plant," p. 75.
[18] Humphrey, Peterson, and Wilson, "The Future of Cleveland's Capital Plant," pp. 13-14.

gather the evidence. Such is the purpose of this chapter: A sorting out of what little we know about the fiscal implications of national economic performance for State and local governments via a summarizing, critiquing and synthesizing of existing research in this area. While the answers one gets from a review of such studies are tentative and qualified, the overall picture that emerges gives some fragmentary evidence about how inflation and recession compromise or enhance the fiscal health of State and local governments. Some of these studies give results that are suspect that must be heavily qualified, but they are what we have. The question is much too important to be shelved, and Federal policy demands some sort of prognosis about the effects of recession and inflation on subnational government finances.

Inflation

After a relatively long period of price stability, consumer prices began to rise sharply in 1973, increased by 11 percent in 1974 and 9.2 percent in 1975. After falling off to about 6 percent for two years, prices are again increasing at a double-digit rate. It is intuitively obvious that inflated prices raise the cost of providing government services and stimulate tax bases. It is less obvious whether the revenue or the expenditure effects dominate, how these effects can be measured, and how they might be anticipated. One might begin an inquiry about the fiscal impact of inflation by tracing out a set of *a priori* expectations, and then reviewing the available empirical work on the subject. We take such an approach here.

EXPECTED EXPENDITURE IMPACTS

Inflation directly impacts the expenditure side of government budgets by raising the price of factor inputs, but it also exerts indirect effects by causing governments to make tax and expenditure adjustments to accommodate these higher prices. One approach to studying the impact of inflation is to take both kinds of effects into account and try to estimate how State and local governments have *actually* responded to inflation. This calls for an econometric model and raises the difficult but interesting problem of how one separates the effects of inflation from everything else.

Another approach, the one taken here, is more *a priori* in attempting to establish the *potential* effects of price level increases and then trying to deduce the discretionary adjustments made. The initial question is not how has inflation impacted on the budget but how it might if governments simply paid the higher prices; i.e., how much would inflation raise the cost of providing the present level of services? These potential effects depend on two factors: The mix of inputs which governments buy (described in Table IV–1) and whether the prices of these inputs rise as fast or faster than the rate of inflation. Some rough indication might be gained from the summary statistics in Table IV–2. The question to be raised is whether one could conclude from these data that prices faced by State and local governments have risen faster than prices in general.

Labor costs.—Since about 35 percent of State and local government expenditures are for wages and salaries, an understanding of how

inflation stimulates labor costs is essential. Potentially, one might anticipate labor costs increases in line with the CPI; i.e., no increase in employment but wage increases just adequate to compensate for cost-of-living increments. This implies that State and local government expenditures would be essentially indexed to cost-of-living increases and that the price elasticity or demand for public employees is zero.

TABLE IV-1.—COMPOSITION OF STATE AND LOCAL GOVERNMENT EXPENDITURES, 1978

[Dollar amounts in billions]

	Amount	Percent
Labor costs	$138	35.3
Materials, equipment, supplies[1]	156	39.9
Construction	36	9.2
Land and equipment	9	2.3
Interest	14	3.6
Transfer payments	14	3.6
Insurance benefits and repayments	24	6.1

[1] Total current expenditures minus total wages and salaries.

Source: U.S. Bureau of the Census, "Governmental Finances in 1977-78," GF78, No. 5 (Washington, D.C.: Government Printing Office, 1979).

TABLE IV-2.—ALTERNATIVE MEASURES OF PRICE LEVEL INCREASE

	Labor				
	BLS middle level of living[1]				Labor and materials, GDP deflator for SLG purchases
	Amount	Index	CPI	GNP implicit deflator	
1979			[2] 216.9	[3] 165.50	[3] 169.1
1978	18,622	162.7	195.3	152.05	156.5
1977	17,106	149.4	181.5	141.70	146.1
1976	16,236	141.8	170.5	133.88	137.7
1975	15,318	133.8	161.2	127.18	129.7
1974	14,333	125.2	147.7	116.02	118.4
1973	12,626	110.3	133.1	105.80	107.3
1972	11,446	100.0	125.3	100.00	100.0
1971	10,971	95.8	121.3	96.02	94.5
1970	10,664	93.2	116.3	91.36	88.3
1965	9,076	79.3	94.5	74.32	65.1

	Capital outlays		Energy	
	Interest rates on long-term Treasury bonds	Construction costs	Gas and electricity	Fuel oil and coal
1979	[2] 8.32	[3] 171.3	[2] 259.9	[2] 391.2
1978	7.89	157.8	232.6	298.3
1977	7.06	146.7	213.4	283.4
1976	6.78	138.4	189.0	250.8
1975	6.98	132.3	169.6	235.3
1974	6.99	115.3	145.8	214.6
1973	6.30	103.8	126.4	136.0
1972	5.63	100.0	120.5	118.5
1971	5.74	96.4	114.7	117.5
1970	6.59	91.3	107.3	110.1
1965	4.21	74.5	99.5	94.6

[1] Urban U.S. intermediate budget.
[2] June 1979.
[3] Preliminary 1979.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, "Business Statistics, 1977;" "Survey of Current Business," various issues; U.S. Department of Labor, Bureau of Labor Statistics, Autumn "Urban Family Budgets and Comparative Indexes for Selected Urban Areas," annual; "Handbook of Labor Statistics, 1978."

In the sixties and early seventies this was essentially the pattern—public employees received cost-of-living increments and real wage increases. The labor cost impact of inflation could be reasonably

approximated by increases in the cost-of-living. The increasing rates of inflation beginning in about 1973 changed this pattern as State and local governments apparently begin to adjust their spending patterns to rising input prices. The problem of estimating the actual expenditure impact of inflation has become considerably more complicated than simply assuming that public employee wages will keep pace with inflation.

Wage rate increments are negotiated and are a discretionary action of State and local governments, i.e., governments aren't required to pay full cost-of-living increments in the same way that they are required to pay a higher price for a gallon of gasoline. To the extent governments can influence the bargaining process, they might choose to let the price of labor rise by more or less than the general price increase or they might choose between some combination of increasing wage rates and employee layoffs. Because in many cases, revenue bases have not been stimulated enough by inflation to pay the increased cost of providing a constant level of services, one would expect State and local governments to take both approaches in attempting to slow the rate of growth in labor costs. Recent evidence suggests that they have. Through most of the 1970's, average compensation [19] of State and local government workers increased because of inflation, but at a rate less than the CPI.[20] An index of the actual increase in State and local government employee wages would show less growth than the CPI since 1973. Part of the impact of inflation, then, has been absorbed by public employees in the form of some reduction in their real (average) wage rate.

The public employment response to inflation is less easily deduced. As was described above, State and local government employment have increased throughout most of the past decade. This increase has come about for a myriad of reasons including increasing incomes, changing voter tastes, and needs related to urbanization. Our question is whether this rate of increase would have been higher or lower if the rate of inflation had been lower. The answer would appear to be that inflation has dampened the growth in State and local government employment.

To sort out this net impact, an income and a substitution effect have to be identified. First, because the purchasing power of government revenue declines during inflationary periods, layoffs or a slower rate of employment growth might be expected. Governments, like any consumer, will purchase fewer inputs when real income falls. Had the inflation rate been lower, real revenues would have been higher and a higher level of State and local government employment would have resulted. But the employment impacts of inflation do not end with the real income effect. While this real income effect probably dominates the inflation impact on inflation, there may be an offsetting or reinforcing substitution effect. If the price of labor to State and local governments increases faster than the price of all other inputs, there will be some tendency to further reduce employment. If the price of labor falls relative to the prices of all other inputs, there will be some

[19] Including supplements. See ch. III, p. 59, 61.

[20] See Jesse Burkhead and Shawna Grosskopf, "Trends in Public Employment and Compensation," in *Public Employment and State and Local Government Finances*, ed. by Roy Bahl, Jesse Burkhead and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger Publishing Co., 1980); and Shawna Grosskopf, "Public Employment Trends and Problems," in *Urban Government Finances in the 1980's*, ed. by Roy Bahl (Beverly Hills, California: Sage Publications, forthcoming).

tendency to use more labor. In either case, however, the response is likely to be small because the demand for public employees is quite price inelastic; i.e., as wage rates go down (relative to other prices), State and local governments will increase their employment rolls (or at least let them grow faster than they would have otherwise) but not by very much. Ehrenberg's estimates would suggest that a 10-percent wage rate increment would reduce public sector employment by only 3 to 4 percent.[21]

This analysis suggests that through most of the 1970's, inflation has outrun the increase in State and local government labor costs and as a result the size ofthe real public employment budget is smaller than it would have been under lower inflation rates. This, in turn, suggests that a part of the cost of inflation is borne directly by public employées (in the form of lower real wages) and in part by residents (in the form of the lower public service levels attributable to having fewer public employees).

A number of qualifiers have to be offered to this speculation. There is simply too much variation in functional responsibility, labor practices, revenue structures and economic conditions to permit such a generalization about the effect of inflation on labor costs for all State and local governments. Where unions are strong, public employee compensation tends to be higher[22]; hence, one might conclude that *cet. par.*, labor costs will better keep pace with inflation in the heavily unionized areas of the Northeast and Industrial Midwest. Where public employee organization is weak, labor would seem much more vulnerable to the prospect of bearing a substantial share of the burden of inflation.

Another important difference is whether the local revenue structure is responsive to increasing prices. For States and some local governments that rely heavily on sales and income taxes, the purchasing power of local government revenues may not decline because of inflation. That is, the inflation induced increase in sales and income tax bases may generate revenues which are more than adequate to cover the inflation-induced increase in the cost of providing a constant level of services. This would imply a greater willingness on the part of government to grant cost-of-living increases, and because real government revenues do not decline, no tendency to cut employment rolls. The net impact of inflation in such a case is to increase the public employment budget. Public employees and residents share in the benefits of inflation at the expense of taxpayers who must foot the bill for the increased cost unless they force a discretionary tax reduction. If they do, the real income of the government declines and the process is as described above.

Other factors would cause us to question generalizations about the impact of inflation. For examples, governments have different functional responsibilities—hence different uniformed, blue collar, and white collar employment mixes and the precarious financial position of a Cleveland or a Detroit may hold wage responses to inflation below what they otherwise might have been. All of these reasons suggest that the average response deduced above must be interpreted cau-

[21] See Ronald Ehrenberg, "The Demand for State and Local Government Employees," *American Economic Review* 63 (June 1973).

[22] See, for example, R. Ehrenberg, "Municipal Government Structure, Unionization, and the Wages of Firefighters," *Industrial and Labor Relations Review* (October 1973).

tiously. Labor costs may well have responded less than proportionately to inflation for the State and local government sector as a whole since 1973, but for some governments the response was quite different from this average.

One last caveat relates to the time period studied. There is the possibility that public employees will regain what appears to be their lost militancy. If government employees lost ground relative to the private sector in the 1970's because they willingly shared in the post-recession austerity programs of State and local governments, they may now be ready to repeat the wage catch-up process of the 1960's. In that case, State and local government labor costs will rise as fast or faster than cost-of-living increases and higher inflation rates will place intolerable burdens on government budgets.

Nonlabor cost.—Nonlabor expenditures respond to inflation more directly, since governments have little control over prices paid for materials and supplies purchased. The choices are simply to pay the higher price, reduce the quality of the input or reduce the quantity of the input. The former is often the choice because the nature of the production process in the State and local sector leaves little room for substitution between labor and nonlabor inputs.[23]

To examine the potential effects on labor and nonlabor costs, assume that the government makes no quality or quantity adjustments. The inflation impact will then depend on whether the unit cost of materials purchased by State and local governments has risen as fast as the general price level? The cost of materials/supplies, etc., to governments is a weighted average: the quantity of each type of purchase weighted by the increase in the appropriate price index. Greytak, Gustely and Dinkelmeyer constructed such an index for New York City material input costs for the 1965–72 period using over 60 categories of purchases and a separate price index for each.[24] Their findings show the cost of supplies to be increasing at a slower rate than the CPI, but materials and equipment increased at about the same rate. Using a similar method for the 1971–74 period, they found about the same relationship between the increasing price of material inputs and the CPI—material input prices increased by about 90 percent of the rate of increase in the consumer price index. However, for five other local government areas studied, they found the materials price response to vary from about 60 percent of the CPI in Orange County California to about 93 percent in Atlanta, Georgia.[25] Cupoli, Peek and Zorn, studying Washington, D.C. expenditures for the 1972–75 period estimated that inflation drove up material costs by 31.6 percent as against a 28.7 percent increase in the CPI.[26]

Governments may not elect to pay the full cost increase implied. If the net effect of inflation is to lower the purchasing power of government revenues, some quantity adjustments will also take place. Examples would be deferral of road maintenance, telephone use restrictions, reduced school busing service, restricted travel, deferral of

[23] The constant labor share is studied in Thomas Borcherding and Robert Deacon, "The Demand for Services of Non-Federal Governments," American Economic Review 62 (December 1972).

[24] David Greytak, Richard Gustely, and Robert J. Dinkelmeyer, "The Effects of Inflation on Local Government Expenditures," *National Tax Journal*, Vol. XXVII, No. 4 (December 1974): 583–598.

[25] David Greytak and Bernard Jump, Jr., "Inflation and Local Government Expenditures and Revenues: Methods and Case Studies," *Public Finance Quarterly*, Vol. 5, No. 3 (July 1977): 275–301.

[26] Edward M. Cupoli, William A. Peek and C. Kurt Zorn, "An Analysis of the Effects of Inflation on Finances in Washington, D.C.," Occasional Paper No. 36, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, April 1979).

office machine replacement, keeping the city swimming pool closed and postponing the purchase of tools, and repair parts. This is the same kind of real income effect noted above, if real government revenues fall when the inflation rate rises, the quantity of inputs will be reduced; i.e., they will be at a lower level than would have been the case with a lower inflation rate. Unfortunately, data limitations make it impossible to observe actual price and quantity adjustments as in the case of labor, hence it cannot be determined whether governments actually made quantity adjustments. Still, it would seem reasonable to conclude that where inflation dampens real revenue growth, it has the net effect of lowering the quantity of materials, supplies used. Hence, State and local government expenditures on the items will not likely rise by the full amount implied by the price increase.

Quantity in adjustments also may be a response to labor reductions. As inflation forces a reduction in employment, the required quantity of materials, supplies etc., will be reduced.

Capital costs.—The effect of price increases on capital expenditures is more difficult to sort out. The question is whether capital expenditures would be higher, *cet. par.*, under a lower rate of inflation. We might begin with the potential impact; i.e., by assuming that governments would not alter their capital project plan and by attempting to measure the increased cost due to inflation. When viewed in this manner the issue is whether capital project costs have increased faster or slower than the general price level. Specifically, the question might be asked in terms of the increasing cost of carrying out any particular project; i.e., the labor, capital, land, and material costs associated with capital construction. If anything, labor costs in the highly unionized construction industry are more likely to respond proportionately to price increases than are general public-sector wage rates. Likewise, rising interest costs are beyond the control of State and local governments and have recently increased at rates well above the general price increase. The cost of construction materials and land may also have increased faster than the general inflation rate. Yet over most of the present decade, capital construction costs have increased at less than the general inflation rate (see Table IV–2).

Whether or not capital costs rise faster than the rate of inflation, a higher rate of inflation means a higher cost or carrying out a project. Governments may avoid some of these inflationary effects by reducing the size or quality of a project, postponing construction or even cancelling it altogether. For examples, the proposed highway may be two-lane instead of four-lane, the sewer system may not be extended for another two years or the municipal auditorium may never be built. These effects of inflation are not easily measurable and surely don't show up in budgets, but they may well be the most important. Again, we cannot observe the price and quantity adjustments actually made but the evidence of recent years shows that State and local governments have substantially slowed their rate of capital formation.[27]

Transfer payments.—Inflation also affects State and local government expenditures by raising State and local government expenditures on transfer payments—particularly public assistance and medicaid payments. The effects of inflation are not easily estimated because the

[27] George Peterson, "Capital Spending and Capital Obsolescence: The Outlook for Cities," in *The Fiscal Outlook for Cities*, ed. by Roy Bahl, (Syracuse, New York: Syracuse University Press, 1978), pp. 49–74.

State and local government contributions are not strictly indexed and because State and local governments have discretion over how much they will spend on these programs. Yet one might expect that transfer payments will respond to inflation, particularly those related to medical costs.

States do not have to react to rising costs, but have three avenues open in adjusting the level of transfer payments. They may change eligibility rules thereby undertaking a quantity adjustment; they may adjust benefit levels (i.e., number of hospital days insured, number of physician benefits, drug and dental allowances); and they may adjust fee schedules. The latter response, or following the medicare reimbursement schedule which is essentially indexed, gives the greatest inflationary response. Though States have attempted to slow the increase in medicaid costs by reducing primary health care services, they have been heavily burdened by the rising cost of hospital and nursing home services. Davis and Schoen report that real annual medicaid payments per recipient rose by only $23, from $338 in 1969 to $361 in 1977, the number of recipients doubled, and the general price of medical care nearly doubled.[28] At least half of the State and local government expenditure increase of medicaid might be attributed to inflation.

Another major type of transfer payment is State aid to local government. It would seem interesting to raise the issue of whether inflation would effect a State's choice of expenditure allocation as between direct spending and local assistance. The answer would appear to be that inflation exerts a slight dampening effect. A rough estimation of the State aid share of total State expenditures over the 1958–77 period yields:[29]

$$\ln A/E = -0.54 + \underset{(11.5)}{0.62}\ \ln Y - \underset{(8.42)}{0.87}\ \ln C \qquad R^2 = 0.94 \qquad (1)$$

where

A/E=State aid share of total State government expenditures
Y=nominal personal income
C=consumer price index.

These results indicate, *cet par*, that the aid share is likely to exhibit a stronger positive response to an increase in real income than to the same percent increase in nominal income.

Total expenditure impacts.—From this *a priori* reasoning, two issues should be clear: First, there is reason to expect that government expenditures will grow faster if the rate of inflation is higher but will probably not grow as fast as the rate of inflation; and second, the effects of increasing factor prices on expenditures are far from the total impact of inflation. Many of the effects of inflation will be hidden adjustments that are difficult if even possible to measure. Whether these adjustments—postponements, deferrals, layoffs, cutbacks—are a cost or a benefit to the community is not at all clear. Moreover, State and local governments may be spurred to make other adjustments to forestall this retrenchment; e.g., tax rates may be increased to keep the purchasing power of government revenues constant, the burden of maintaining current service levels may be shifted to another

[28] Karen Davis and Cathy Schoen, "Health and the War on Poverty: A Ten Year Appraisal" (Washington, D.C.: Brookings Institute, 1978), Chapter 3.
[29] All variables are in natural logarithms, t-statistics in parenthesis.

generation via borrowing, etc. It is important to remain cognizant of this broader range of possible expenditure impacts of inflation.

EXPENDITURE-INFLATION INDEXES [30]

To measure the potential impact of inflation on expenditures requires price indexes for each class of State and local government expenditure. The problem might be defined more specifically: The total actual expenditure change (dE) is

$$dE = E_t - E_o \tag{2}$$

where

E_t = expenditures in year t

E_o = expenditures in some base year

and the change in expenditures due to inflation ($d\hat{E}$) is [31]

$$d\hat{E} = (1-p)E_o \tag{3}$$

where

p = some percent increase in an appropriate price index.

Hence, the share of expenditure increase due to inflation is

$$\frac{dE}{d\hat{E}} = \frac{pE_o}{E_t - E_o} \tag{4}$$

The estimation of $d\hat{E}/dE$ is a relatively simple exercise if only an appropriate price index is available. Unfortunately, the choice and the measurement of such an index is anything but simple. The problem is that an aggregate price index for State and local government expenditures would have to take into account the differential growth in prices for each component of the State and local government budget, i.e., a kind of market basket survey of State and local government purchases is necessary. The Implicit Price Deflator for State and local government purchases provides such an estimate, but is flawed for the purposes at hand in that it cannot reflect the wide variation in the package of services purchased by different State and local governments nor is it available on a regional basis. The only way around this problem would seem to be construction of a price index for each government, weighted to reflect the composition of expenditures by that government.[32]

If labor costs are assumed to respond fully to the rate of inflation, the proper index would be a cost-of-living measure. This likely would play the strongest role in determining the wage rate increase necessary to compensate public employees for rising consumer prices. There are few choices of an index for this purpose. The Bureau of Labor Statistics estimates, for 39 metropolitan areas, the cost of three

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[30] The conceptual problems with defining and using price indexes to measure inflation in the public sector are considerably more difficult than implied here. For a thorough discussion, see David Greytak and Bernard Jump, Jr., "The Impact of Inflation on the Expenditures and Revenues of Six Local Governments, 1971–1974," Monograph No. 4, Metropolitan Studies Program, the Maxwell School (Syracuse, New York: Syracuse University, December 1975).

[31] We have no need to separate quantity from price in defining E in equation (IV–1) since the analysis of the "potential" impact of inflation suggested here implies a zero price elasticity of demand.

[32] Unfortunately, the price indexes which would be used for such construction (i.e., CPI, WPI) are only available on a national basis. Hence one might be able to account for the different mix of expenditures of different local governments, but not for the differential rates of price increase in different regions of the country.

"levels" of living.[33] This is a market basket survey and is limited by its relatively narrow geographic coverage. On the other hand, it has the strengths of allowing for some regional variations in the cost of living and having been constructed explicitly for the purpose of measuring overtime changes in the cost of living. Some analysts have chosen to deflate labor cost increases by the national CPI, thereby assuming uniform price increases across the Nation. Since it appears that prices are growing faster in the growing region,[34] the index overestimates the effects of inflation on labor costs in the declining regions. On the other hand, if public sector labor unions bargain with national price index information (or if governments make wage agreements with national price level increases in mind), the national CPI is an appropriate index. Moreover, the CPI is available with relatively little time lag whereas the BLS index is produced with a one to two year lag.

The problem of choosing an appropriate index is even more difficult for nonlabor costs because of the wide range of goods and services involved. One possibility is to use the Implicit Price Deflator (IPD) for State and local government purchases as reported in the National Income Accounts. However, this index has the disadvantages of including labor costs and allowing for neither price level variations across regions nor variations in the type of materials purchased. The latter problem may be resolved by choosing a great number of specific price indexes, the very laborious procedure followed by Greytak and Jump,[35] and by the City of Washington, D.C. in estimating inflation effects in conjunction with its long-term expenditure forecast.[36]

In sum, even if the inflation impact is defined only in terms of direct price effects, and even if we assume that State and local governments must pay the full price increases, measurement will be quite subjective. As may be seen from Table IV–2, the answer we get for an inflation impact will vary considerably according to the index chosen. This is not to say that one cannot gain some idea about the impact of inflation on State and local government expenditures, but rather that the impacts should be interpreted with these conceptual and empirical flaws in mind.

ESTIMATES OF THE EXPENDITURE IMPACT OF INFLATION

There have been surprisingly few studies of the impact of inflation on State and local government expenditures. The best and most careful research is a series of studies carried out in the Metropolitan Studies Program of Syracuse University's Maxwell School, chiefly by Greytak and Jump.[37] Working with data for New York City for the 1965–72

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[33] See Bureau of Labor Statistics, "Autumn 1976 Urban Family Budgets and Comparative Indexes for Selected Urban Areas," (Washington, D.C.: U.S. Department of Labor, April 27, 1977), pp. 79–369.

[34] Bernard Weinstein and Robert Firestine, "Regional Growth and Decline in the U.S." (New York: Praeger Publishers, 1978).

[35] Greytak and Jump, "The Impact of Inflation on the Expenditures and Revenues of Six Local Governments, 1971–1974."

[36] *Multi-Year Financial Plan FY 1979–85*, District of Columbia Government, September 1977.

[37] Greytak, Gustely and Dinkelmeyer, "The Effects of Inflation on Local Government Expenditures"; Roy Bahl, Alan Campbell and David Greytak, "Taxes, Expenditures, and the Economic Base: A Case Study of New York City" (New York: Praeger Publishers, 1974), chapters 3 and 4; David Greytak and Bernard Jump, Jr., "The Impact of Inflation on State and Local Government Finances, 1967–1974," Occasional Paper No. 25, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, 1975); Greytak and Jump, "The Impact of Inflation on the Expenditures and Revenues of Six Local Governments, 1971–1974," 1975; Greytak and Jump, "Inflation and Local Government Expenditures and Revenues: Methods and Case Studies," 1977.

period, and for the entire State and local government sector during the 1971–74 period, they computed expenditure-inflation indexes. The Greytak and Jump series attempt to estimate how much expenditures would grow if they responded fully to price increases; i.e., they assume a zero price elasticity of the demand for public employees and estimate the *potential* for expenditure growth due to inflation.

Their results, not surprisingly, show that inflation has potentially had an important impact on the expenditures of State and local government and that this impact rises with the rate of inflation. They demonstrate that the inflationary impact on State and local government spending during the 1972–74 period was greater than that for the entire 1967–72 period. Moreover, they show that the inflation impact on expenditures could have accounted for virtually all of the expenditure increase of State and local governments over the 1972–74 period. Actual State and local government expenditures increased by only about 18 percent during these two fiscal years, but if State and local governments had fully responded to the effects of inflation, expenditures would have increased by 25 percent; i.e., if State and local governments had maintained 1972 employment levels and real nonlabor expenditures and had compensated employees and transfer recipients for increases in the cost-of-living, expenditures would have increased by 25.3 percent by 1974 (see Table IV–3).

An application of the Greytak-Jump method, still using the 1972 base, to 1976 expenditures shows an expenditure-inflation index of 140.2 suggesting that inflation potentially accounted for about 80 percent of total expenditure growth.[38] For the State and local government sector as a whole, one might conclude from these results that inflation accounted for virtually all of the expenditure increase between 1972 and 1976.[39]

This conclusion may not be so readily accepted for all local governments, because expenditure mixes vary substantially. Greytak and Jump carried out case studies for six local governments during the 1972–1974 period to show the wide variation in the effects of inflation on expenditures. While the aggregate State and local government expenditure inflation index was 125.3, the indexes for these governments over the same period range from 165.9 in Snohomish County, Washington to 123.0 in New York City.[40] The percent of expenditure increase potentially accounted for by inflation ranges from 93 and 88 percent in Atlanta and New York City to 60 percent in Orange County, California.

There are a few other examples of estimated inflation effects. Chaiken and Walker have used a wage index to estimate that 75 percent of the expenditure increase in Los Angeles between 1973 and 1978 could be attributed to inflation.[41] Cupoli, Peek and Zorn used the Greytak-Jump method to estimate that nearly 76 percent of the

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[38] Roy Bahl, Bernard Jump, Jr., and Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions," in "The Fiscal Outlook for Cities," ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1978), pp. 11–16.

[39] Crider has developed a similar index by weighting components of local government compensation and other expenditures by CPI and WPI and has reached similar results. See Robert Crider, "The Impact of Inflation on State and Local Government," Urban and Regional Development Series No. 5 (Columbus, Ohio: Academy for Contemporary Problems, July 1978).

[40] The other four local governments studied were Erie County, New York; Roanoke, Virginia; Orange County, California; and Atlanta, Georgia.

[41] Jan Chaiken and Warren Walker, "Growth in Municipal Expenditures: A Case Study of Los Angeles," *The Rand Corporation* (June 1979).

Washington, D.C. expenditures increase (excluding transfers) between 1972 and 1975.[42] The City of Dallas has used its forecasting model to ask the interesting and related question of how much will future expenditures respond to higher rates of inflation.[43] Working with a low vs. a high inflation rate scenario, they conclude that a difference of 5 percent in total general expenditures might be expected between 1980 and 1984.[44]

EXPECTED REVENUE IMPACTS

Revenues also respond to inflation in that the nominal value of tax bases rises with increasing money incomes, consumer good prices and housing prices. Hence, there is clearly a potential to capture increased revenues induced by inflation. For sales and income taxes, the revenue response is more or less automatic, and estimation of the inflation effects is straightforward enough. However, in the case of the property tax, the problem is far more complicated. Land and improvement values have increased dramatically during recent inflationary periods, thereby providing equally dramatic increases in the *potential* for increased property tax revenues. Indeed, in terms of the potential revenue effects of inflation, the property tax may be the biggest winner of all. But who would argue that local governments may easily capture this potential increase in the tax base? The major impediment to property tax revenue growth during inflation is the revaluation of properties. The political obstacles to such revaluation are well known. Indeed, in the one case where property tax assessments even began to reflect skyrocketing property values, a major taxpayer revolt was fomented.

If the problem of estimating inflationary impacts is difficult for the property tax, it is next to impossible for most intergovernmental grants. One might hypothesize that as the more elastic Federal and State tax structures respond to inflation, Federal and State aids will respond proportionately—as if they were a highly elastic tax.

We might offer a crude test of this hypothesis by examining the long-term responsiveness of the grant share of Federal Government expenditures (F/B) to changes in nominal income (Y), and the CPI (C):

$$\underset{R^2=.97}{1nF/B=-7.76+\underset{(7.7)}{0.96}\ 1nY-\underset{(2.6)}{0.61}\ 1nC} \qquad (5)$$

These results show that for any given growth rate in income, inflation has a very slight dampening effect on the grant share of the Federal budget.

[42] Cupoli, Peek and Zorn, "An Analysis of the Effects of Inflation of Finances in Washington, D.C."
[43] City of Dallas, "Summary Long Range Financial Plan, 1979–80 to 1983–84" (Dallas, Texas: Office of Management Services, August 1979).
[44] They used the following scenario:

	1981	1982	1983	1984
Personnel:				
High inflation	7.5	7.0	6.5	6.5
Low inflation	6.5	6.0	6.0	5.5
Nonpersonnel:				
High inflation	11.0	10.0	9.0	9.0
Low inflation	9.0	8.0	7.0	6.5

APPROACHES TO ESTIMATING IMPACTS ON REVENUES

In attempting to determine the impact of inflation on State and local government revenues, three general approaches have been taken. All are similar in that they somehow try to separate automatic from discretionary increases in revenue growth.[45] The *elasticity* models try to estimate the percent change in revenues resulting automatically from a 1-percent change in income; i.e.,

$$\eta = \frac{dR}{dY}\frac{Y}{R} \qquad (6)$$

where

Y=personal income

R=revenue

If, for example, $\eta=1.1$, a 1-percent change in personal income will automatically increase revenues by 1.1 percent. Then, one might argue, for every 1-percent increase in personal income which is due to inflation, a 1.1 percent inflation-induced growth in revenues will result. If this reasoning is sound, it would seem that an answer could be had from a straightforward estimation of (2) from historical data.

The elasticity approach raises a number of questions. It assumes that the effects of inflation are adequately picked up by the growth in nominal personal income; e.g., a 4-percent real and 4-percent inflationary growth in personal income and an 8-percent growth in personal income would have an identical effect on revenues. There are reasons to believe otherwise. One is that price increases may somehow change the structure of personal income and consumption and therefore the elasticity of the tax in the future, but would be missed in a straightforward elasticity estimation which typically assumes away price effects. For example, if the ratio of taxable to total consumption rose with increasing prices, so would the tax elasticity. There are other examples. In addition to the "progressivity" effects under State income taxes, one might question whether inflation affects the source distribution of income, particularly capital gains, and thereby affects total taxable income. A separate but equally serious problem with the elasticity approach has to do with the difficulty of separating automatic from discretionary effects on revenue growth. Particularly in the case of the property tax it is all but impossible to identify an "automatic" responsiveness of tax revenues to growth in either personal income or price levels. These caveats suggest that straightforward use of historical data to provide an estimate of the revenue-inflation impact will be problematic.

A second approach is that taken by Greytak and Jump. They have considered every revenue source and have attempted to estimate revenue potential; i.e., the tax base response to price increase. They ask the question "How much would revenues grow in response to inflation if tax bases increased at their full potential and if effective tax rates remained constant?" They begin with 1972 and inflate each tax base and user charge base by an "appropriate" index—taken

[45] The separation of automatic from discretionary changes and the estimation of revenue-income elasticities for State and local governments is discussed in Roy Bahl and Larry Schroeder, *Forecasting Local Government Budgets*, Occasional Paper No. 38, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, 1979).

from the CPI, WPI or the BLS family expenditure survey. For example, for the property tax, they used BLS price indexes for residential housing and residential rents, and various Boeckh indexes for commercial and industrial properties.

The problem of estimating the revenue impact of inflation is analogous to that on the expenditure side: the *potential* effects will give a greater increase in revenues than most governments will be willing (or politically able) to accept. The response by State and local governments has been to allow effective property tax rates to fall by failing to reassess and in some cases to index State taxes or reduce income tax rates. In sum, a part of the potential revenue stimulus of inflation has been foregone.

A third approach, taken by the ACIR, is a substantial improvement on the elasticity estimation method.[46] They have adapted Vogel's model of State and local government expenditure growth during the business cycle,[47] and have estimated.

$$\Delta R = 1.15 - 0.12\Delta G + 236.42\Delta D$$
$$(5.54)\quad (11.28)$$

$$R^2 = 0.883 \quad DW = 1.35$$

where

ΔR = change in own-source revenue
ΔG = change in nominal GNP gap
ΔD = change in implicit price deflator.

The product of the actual change in the deflator between two years ($\triangle D$) and the regression coefficient (236.42) gives an estimate of the effects of inflation on own-source revenues, holding constant the change in the nominal GNP gap for that year. The ACIR study, while carefully done, suffers from a specification error in assuming that revenue changes (automatic and discretionary) can be explained by movement in the business cycle and the price level. There is a voluminous literature which argues that expenditure, and therefore revenue and tax rate levels, are responsive to changes in population, Federal grants, changing economic structure, etc. The omission of these important variables leads to (an uncertain) bias in the results.

The difference in the ACIR and the Greytak-Jump approach lies in the question asked. The ACIR attempts to explain *actual* changes in revenue, Greytak-Jump attempt to show by how much revenue *potential* would change in response to inflation.

ESTIMATED REVENUE IMPACTS

The Greytak and Jump indexes in Table IV–3 show that State and local government revenue potential grew by 16.9 percent between 1972 and 1974. More precisely, if the 1972–74 increase in the nominal values of tax bases had been taxed at 1972 effective rates, the revenues raised

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[46] Advisory Commission on Intergovernmental Relations, *State-Local Finances in Recession and Inflation* (Washington, D.C.: Government Printing Office, May 1979).

[47] Robert C. Vogel, "The Responsiveness of State and Local Receipts to Changes in Economic Activity: Extending the Concept of the Full Employment Budget," Joint Economic Committee of the U.S. Congress, *Studies in Price Stability and Economic Growth* (Washington, D.C.: Government Printing Office, June 1975); and Robert Vogel and Robert Trost, "The Response of State Government Receipts to Economic Fluctuations and the Allocation of Counter-Cyclical Revenue Sharing Grants," *The Review of Economics and Statistics*, Vol. LXI, No. 3 (August 1979): 389–400.

by State and local governments would have increased by nearly 17 percent, solely because of inflation. Between 1972 and 1976, the hypothetical inflation-induced increase in revenue potential was 29.6 percent. It isn't clear that all of this potential increase was captured—at least for the property tax we would expect that it was not—but these increases were the equivalent of the total actual revenue increase between 1972 and 1974 and 60 percent of the increase between 1972 and 1976.

TABLE IV-3.—EXPENDITURE AND REVENUE INFLATION INDEXES FOR STATE AND LOCAL GOVERNMENTS: 1972-76

[1972=100]

	Expenditure inflation indexes		Local source revenue inflation indexes	
	1974 (1)	1976 (2)	1974 (3)	1976 (4)
States	125.4	140.8	116.6	128.3
Counties	125.4	140.5	116.7	133.3
Municipalities	125.4	140.6	115.4	130.7
Townships	125.6	141.5	114.8	130.7
School districts	125.0	138.4	119.2	138.8
Special districts	125.7	142.5	113.3	124.2
All State and local governments	125.3	140.2	116.9	129.6

Source: The indexes were computed using the methods and data sources noted in David Greytak and Bernard Jump, "The Effects of Inflation on State and Local Government Finances, 1967-74," occasional paper No. 25, Metropolitan Studies Program, Maxwell School, (Syracuse, N.Y.: Syracuse University, 1975); and reported in Roy Bahl, Bernard Jump, Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions" in "The Fiscal Outlook for Cities," ed. by Roy Bahl (Syracuse, N.Y.: Syracuse University Press, 1979).

The ACIR study also concludes that State and local governments are stimulated by inflation, they vary from 6 to 16 percent higher than they otherwise would have been.[48] Their estimate of an aggregate inflation stimulus of about $77 billion in revenues between 1973 and 1976 is substantially greater than the Greytak-Jump method estimates of a revenue potential effect of $40 billion between 1972 and 1976. The difference is easily explained. The ACIR method does not adjust for widespread tax rate increases during this period. If governments increase their tax rates to cover increasing costs during period of high inflation, the ACIR estimates would show a greater inflationary impact on revenues; i.e., the tax rate increases are viewed as part of the effects of inflation. This is perfectly correct if the objective is to show the direct and induced effects of inflation on local government revenues, and if the effect of other factors which determine tax rates is removed. It would not seem proper, however, to use these results to infer the effects of inflation on the financing capacity of State and local governments.

The conclusion of these analyses would seem to be that inflation exerts a substantial stimulative effect on revenues. The Greytak-Jump method implies a hypothetical increase slightly less than the growth in the CPI for the 1972–76 period, the ACIR method predicts an inflation effect which is greater than the CPI increase. There still remains the issue of great variations in this effect by type of jurisdiction. For the 1972–76 period, both models show a much greater revenue responsiveness to inflation by State governments (see Table IV–3).

[48] Advisory Commission on Intergovernmental Relations, *State-Local Finances in Recession and Inflation*, p. 34.

The really important question is the net effect of inflation on the budget; i.e., whether inflation drives up revenues by more than it drives up costs. The ACIR answer, at least for the 1973–76 period, is that it does; the Greytak-Jump approach yields a conclusion for the 1972–76 period that it does not. The ACIR estimates net-revenue gains during the 1973–76 period as equivalent to 0.6 percent of own-source revenues in 1973, 3.9 percent in 1974, 5.5 percent in 1975, and 2.9 percent in 1976.[49] However, discretionary rate changes are included in their estimates of revenue increase due to inflation, causing one to suspect an overestimate of the pure inflation effects on the revenue side (because other factors may have caused the tax rate increase). Moreover, they do not consider price effects on any expenditure base—they adjust revenue purchasing power by the IPD for State and local government purchases—causing one to suspect an underestimate of the inflation effects on expenditures. Again, the ACIR estimates are of the total direct and indirect effects of inflation on budgets and take into account any discretionary tax and expenditure adjustments the government may have made because of inflation.

The Greytak-Jump estimates, to the contrary, are of how expenditures and revenues would respond to inflation if no discretionary adjustments were made; i.e., *no tax rate changes*, all inflation-induced changes in the tax base are captured, the number of employees and quantities of goods purchased remain constant, and *no programs are cut back*. Hence, their estimates are of the *purer effects of inflation*, but under the assumption that governments make no quantity or price (tax rate and real wage rate) responses.

The Greytak-Jump estimates show that expenditures were potentially more responsive to inflation than were own-source revenues, at both the State and local levels during the 1972–74 and 1972–76 periods (see Table IV–3). Indeed, while inflation was driving up expenditures by about 25 percent between 1972 and 1974, it was increasing revenues by only about 17 percent. While both indexes continued to increase during the 1974–76 period, the relative cooling of inflationary pressure did allow inflation-induced increases in State and local revenue bases to nearly keep pace with the pressures of inflation on expenditures.

Another way to describe the budgetary effects of inflation is to consider the implications for the purchasing power of State and local government revenues. Purchasing power indexes for the several levels of government, based on 1972 revenue bases, are shown in Table IV–4. For example, a purchasing power index of 90 would imply that after accounting for the effects of inflation on revenues and expenditures, the revenue base would be 10 percent too small to finance a constant level of services. The period 1972–74 was especially severe for inflationary pressures on State and local governments with the purchasing power index falling nearly 7 percent. The situation did not worsen markedly between 1974 and 1976; the pure effects of inflation meant that the potential growth in revenues was adequate to cover 92.44 percent of the inflation induced increase in expenditures.

While the inflation indexes in Tables IV–3 and IV–2 suggest that State and local government sector purchasing power has fallen con-

[49] Advisory Commission on Intergovernmental Relations, *State-Local Finances in Recession and Inflation*, p. 38.

siderably since 1972, the actual effects of inflation have almost certainly been even more severe than those estimates. This is because the revenue and expenditure inflation indexes measure the *potential* impact of inflation on the budget, these estimates are not meant to imply that State and local governments actually realized these revenue base effects. Assessment lags would mean that actual taxes would not grow as implied here and therefore the detrimental effect of price indexes on budgets would actually be understated.[50] Moreover, for declining cities it is altogether possible that property values did not keep pace with the general rates of increase in property values experienced in the rest of the Nation.

TABLE IV-4.—INDEXES OF PURCHASING POWER OF 1972 REVENUE BASE[1]

[1972=100]

	1974[2]	1976
	(1)	(2)
States	92.98	91.12
Counties	93.06	94.88
Municipalities	92.03	92.96
Townships	91.40	93.37
School districts	95.36	100.00
Special districts	90.14	87.16
All State and local	93.30	92.44

[1] 1972 revenue excludes intergovernmental aid.
[2] Computed from Greytak, et al., "The Effects of Inflation on State and Local Government Finances," 1967–74.

Source: The indexes were computed using the methods and data sources noted in David Greytak and Bernard Jump, "The Effects of Inflation on State and Local Government Finances, 1967–74, "occasional paper No. 25, Metropolitan Studies Program, Maxwell School. (Syracuse, N.Y.: Syracuse University, 1975); and reported in Roy Bahl, Bernard Jump, Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions: in "The Fiscal Outlook for Cities," ed. by Roy Bahl (Syracuse, N.Y.: Syracuse University Press, 1979).

There is little doubt but that the potential effects of inflation on State and local government budgets are substantial. The expenditure impacts may not show up immediately, because of lagged responses, or directly, because governments may compensate for price increases by cutting services. But it seems clear that inflation has important and substantial effects on the cost side of the budget. The effects on the revenue side may be much less pronounced, particularly for property taxes and particularly in this time of taxpayer resistance. On the basis of this evidence, it would seem reasonable to conclude that inflation does reduce the purchasing power of State and local government revenues and may do so by a substantial amount. The 7 to 8 percent reductions suggested in the Greytak-Jump analysis of the 1972–74 period do not seem too far from the mark for the overall inflation rates experienced during that period. For local governments which are more heavily reliant on the property tax, the effect may be much greater.

Recession

An estimate of the net effect of recession on State and local government budgets also requires separate estimates of revenue and expenditure effects. Conceptually the problem is similar to that faced in estimating inflation impacts—does the impact include the fiscal ad-

[50] There also may be a lag in collective bargaining agreements which would cause these expenditure effects to be overestimated. Yet, one can believe that over the longer run public employee wage rates will catch up with those in the private sector. It is not at all clear that assessment lags will be so eliminated.

justments which the State and local government make in the face of a recession? If such adjustments are not considered, then the negative fiscal effects of recession seem intuitively obvious. Revenues will fall below what they otherwise would have been and expenditures will, if anything, increase over what they otherwise would have been.

As the rate of growth in personal income slows and unemployment rises, the sales and income tax bases should also begin to grow more slowly. As construction slows, additions to the property tax base also slow, though probably with a lag. The demand for housing and industrial-commercial space will be off from previous levels, hence, there will be a slower increase in property values. In the worst cases, abandonments and vacancies may occur. In short, recession will reduce revenue potential. The automatic expenditure response to recession is less easily isolated. As unemployment rises, some unemployment-related benefit payments and transfer payments will rise but little else will be directly affected. Citizen demand for services will not change and cost increase pressures will remain about the same, so long as a given rate of inflation is assumed. Therefore, it would seem that an analysis of the "pure" effects of recession would concentrate on the revenue side.

If the concern is less with potential effects than with the overall effects of recession on State and local budgets, including induced fiscal adjustments, a different approach is suggested and a different answer will be obtained. Historically, State and local government have increased tax rates during recessions in order to make up some of the revenue shortfall. Otherwise, the revenue reductions (or slower revenue growth) resulting from recession would cause immediate or delayed expenditure adjustments. Most studies of the effects of the recession on State and local government budgets have taken this approach, either directly or implicitly. This is a strength in the sense of giving a fuller picture of the fiscal accompaniments of recession. But it is a weakness in that the separate effects of inflation and recession become blurred. The major estimation problem is as noted above. If one is going to estimate the net effects of recession, including tax rate and expenditure adjustments, the model must accomodate all other factors which may have affected fiscal decisions. Such a model is not easily specified.

It might seem reasonable to review separately the evidence from these two kinds of studies: First the studies of fiscal performance during the recession and then those few studies which have attempted to address the narrower question of the pure fiscal impact of the recession:

FISCAL PERFORMANCE DURING RECESSIONS

A great number of studies have attempted to understand the fiscal effects of recession by studying the fiscal performance of State and local governments during periods of recession. Some of these are no more than surveys of perceptions, while others are more careful analyses of the past recession. Two conclusions might be drawn from these studies: (a) The budgets of State and local governments were squeezed during the recession, so that compensating tax increases and expenditure reductions did take place; and (b) the fiscal squeeze was more severe for central cities, particularly those in the older industrial region.

The evidence clearly points to increasing fiscal stress during recession years. The financial collapse of New York City was long in the making but ultimately brought on by the recession.[51] The near collapse of Yonkers, Buffalo and New York State can be traced to the effects of recession, though each was brought to the brink by a declining economy. In each case the response was some combination of increased taxes and expenditure cutbacks. Stanley's case studies of Detroit, St. Louis, Buffalo, Cleveland and New York City (carried out in late 1975) indicated projected budget deficits which would require either, or both, sizable expenditure cutbacks or tax rate increases.[52] Congressional testimony from representatives of many different State and local governments tended to support the claim that the recession was forcing relatively drastic fiscal adjustments at the State and local government level.[53]

At least two surveys tried systematically to ferret out the tax and expenditure adjustments made by State and local governments in response to the recession. A Joint Economic Committee survey, covering 48 States and 140 local governments, concluded that State and local governments did indeed raise taxes, cut expenditures and postpone or cancel capital improvement investments because of the recession.[54] But the estimated deflationary adjustments—the removal of purchasing power from the economy as a percent of total State and local government own-source revenue—was a relatively modest 3.5 percent. Indeed, the results of this survey do not indicate pressures of a magnitude that would bring on acute fiscal distress. The second survey, carried out by the Senate subcommittee on Intergovernmental Relations, covered about 400 jurisdictions.[55] Though no estimates were made of the magnitude of fiscal adjustments, it was found that one-third of these governments raised taxes, over half instituted personal limitations and about one-fifth delayed or canceled capital projects. Again, the effects of the recession—as indicated in these surveys—are not as far reaching as might have been imagined.

If the overall fiscal effects of the recession were not so devastating on a nationwide basis, it may be properly asked whether there were substantial variations in these effects across regions or across levels of government. The answer is that there clearly were, with metropolitan central cities in particular and governments in the declining regions in general, feeling the most pressure. Certainly the recession hit the older central cities hardest—they went in earlier and deeper and have come out slower than the rest of the country. This was true in the 1969–72 recession-recovery [56] and would appear to be true for the 1974–78

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[51] Roy Bahl, Alan Campbell, David Greytak, Bernard Jump, Jr. and David Puryear, "Impact of Economic Base Erosion, Inflation and Retirement Costs on Local Governments," Testimony: Fiscal Relations in the American Federal System: Hearings before a Subcommittee on Government Operations, House of Representatives, 94th Congress, First Session, July 15, 1975.

[52] David T. Stanley, "Running Short, Cutting Down: Five Cities in Financial Distress," (Washington, D.C.: The Brookings Institution, March 1979), unpublished manuscript.

[53] U.S. Senate Committee on Government Operations, Subcommittee on Intergovernmental Relations, *Intergovernmental Anti-Recession Assistance Act of 1975*, Hearings on S. 1359 94th Cong., 1st Sess. (Washington, D.C.: Government Printing Office, 1975): U.S. House of Representatives, Committee on Government Operations, Subcommittee on Intergovernmental Relations and Human Resources, *Intergovernmental Anti-Recession Assistance Act of 1977*, Hearings on H.R. 3730 and Related Bills, 95th Cong., 1st Sess. (Washington, D.C.: Government Printing Office, March 1, 2, and 8, 1977), pp. 143–292.

[54] U.S. Congress, Joint Economic Committee, Subcommittee on Urban Affairs, *The Current Fiscal Position of State and Local Governments*, Survey of 48 State Governments and 140 Local Governments, 94th Cong., 1st Sess. (Washington, D.C.: Government Printing Office, December 17, 1975).

[55] U.S. Senate, Committee on Governmental Affairs, Subcommittee on Intergovernmental Relations *The Countercyclical Assistance Program: An Analysis of its Initial Impact*, 95th Cong., 1st Sess. (Washington, D.C.: Government Printing Office, February 28, 1977).

[56] Kathryn Nelson and Clifford Patrick, *Decentralization of Employment During the 1969–1972 Business Cycle: The National and Regional Record* (Oakridge, Tennessee: Oakridge National Laboratory, June 1975), p. 15.

recession-recovery.[57] All of the surveys mentioned above concluded that fiscal adjustments were more drastic in the more distressed cities and regions. The JEC survey found that the most severe fiscal adjustments took place in areas where the unemployment rate was higher. Another JEC survey, of 67 large cities in 1977, reached a similar conclusion.[58] Most studies have concluded that city governments were hardest pressed, but the National Governors' Association has argued that State governments were also forced to budgetary adjustments by the last recession.[59] A GAO study has concluded that States fared better than cities, and countries better than either.[60]

If there is a general conclusion to be drawn from these studies, it would seem to be that there was great variation in the budgetary adjustments resulting from the 1974–75 recession. Though in aggregate the adjustments were not all that great, in some cities they may have been substantial. In fact, none of these studies begins to get at the question of the fiscal effects of recession separate from the effects of inflation and secular growth/decline in economic activity.

Moreover, it is difficult to even guess at the implications of simultaneously considering all of these factors. While there clearly is pressure to increase tax rates during periods of recession, this pressure is dampened if the rate of inflation is high and tax bases are growing. On the other hand, expenditures may be cut back even more because of inflated factor costs. The failure to separate inflation from recession effects is a major problem with this literature.

Another problem with these studies is that they do not adequately account for the timing of fiscal adjustments. While it is interesting to learn how State and local governments alter their taxes and expenditures in the face of recession, it is as interesting to learn *when* they make these adjustments. On the expenditure side, there may well be a lag before reductions begin, with temporary shortfalls made up in any one of a number of ways: Short-term borrowing, underfunded pension systems, selling off financial and real assets, deferring compensation increases, etc. It may be that the full effects of recession on the expenditure side are not felt for several years and even then occur over a period of time. In sum, the expenditure effects of recession may be much greater than is indicated in these surveys.

THE FISCAL EFFECTS OF RECESSION

Recession creates idle resources; i.e., a gap between actual and full employment levels of economic activity. This in turn creates a gap between actual and full employment levels of revenue and expenditure. It seems clear that a proper measure of the effects of recession on revenues would center on the estimation of such a gap, and the few

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[57] John C. Zamzow, "The Current Recession: Its Regional Impact," Testimony before the Subcommittee on Fiscal and Intergovernmental Policy of the Joint Economic Committee, October 16, 1979; and Bahl, Jump and Schroeder, "The Outlook for City Fiscal Performance in Declining Regions."

[58] U.S. Congress, Joint Economic Committee, Subcommittees on Economic Growth and Stabilization and on Fiscal and Intergovernmental Policy, *The Current Fiscal Condition of Cities: A Survey of 67 of the 75 Largest Cities*, a study, 95th Cong., 1st Sess. (Washington, D.C.: Government Printing Office, July 28, 1977).

[59] National Association of State Budget Officers, *State Fiscal Survey* fiscal years 1975, 1976, and 1977, Summary Report (Lexington, KY.: National Association of State Budget Officers, February 1977), p. 3.

[60] The Comptroller General of the United States, Report to Congress, *Antirecession Assistance is Helping But Distribution Formula Needs Reassessment* (Washington, D.C.: General Accounting Office, July 20, 1977). For more detail, see the Comptroller General of the United States, *Impact of Antirecession Assistance on 15 State Governments, Impact of Antirecession Assistance on 16 County Governments: and Impact of Antirecession Assistance on 21 City Governments* (Washington, D.C.: General Accounting Office, February 22, 1978).

studies which have addressed the revenue-recession impact have taken this approach.

The Council of Economic Advisers estimates full employment receipts for State and local governments by applying actual average tax rates to full employment tax bases.[61] They estimated the revenue loss due to the recession to be 4.3 percent of actual revenues in 1974, 9.1 percent in 1975 and 6.6 percent in 1976. Vogel adjusts these estimates to account for discretionary tax rate increases by State and local governments during recessions and, hence, for a CEA overestimate of full employment receipts.[62] His method shows the revenue shortfall to be about half that of the CEA for the 1971 recession. Crider used estimated elasticities by type of tax and computed revenue yield under a recession and full employment scenario.[63] He found revenues to be below their potential by 4.8 percent in 1974 and 10 percent in 1975. His estimates include only own source revenues. The ACIR estimated a model similar to Vogel's to find a revenue loss equivalent to 8.4 percent of revenues in 1975.[64] However, the ACIR considered only own-source revenues whereas the CEA and Vogel considered total revenues.

These approaches all share two problems. All explain changes in actual revenues hence include the discretionary reaction of State and local governments to inflation. Vogel attempts to adjust for this but it is not likely that his adjustments account for the full amount of discretionary change. The other problem has to do with model specification; i.e., with the failure to account for other factors which influence revenue growth. All attempt to control for inflation but none considers secular trends in regional income or interregional migration. In sum, none of these estimates are of the *pure* effects of recession, but they are the best available.

The ACIR also used this regression method to estimate the recession-related revenue loss for 1976 on a State-by-State basis. As might have been expected the variation is wide, ranging from high percentage revenue losses of 20.5 percent in Maine and 16.3 percent in Connecticut to lows of less than 5 percent in several States. The greatest impact is in the industrial States of the Midwest and the Northeast. When the recession effects are separately estimated for all States and for all local governments, the conclusions are that State own-source revenues are almost twice as sensitive to the business cycle as local own-source revenues.

Little attention has been paid the impact of recession on State and local expenditures. Here and elsewhere [65] we have argued that a deferral effect operates which causes State and local governments to postpone expenditure increases during a recession and in its aftermath. The ACIR has estimated such a deferral effect. They find that a reces-

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[61] U.S. President, *Economic Report of the President*, 1977.

[62] Vogel, "The Responsiveness of State and Local Receipts to Changes in Economic Activity: Extending the Concept of the Full Employment Budget"; and, Vogel and Trost, "The Response of State Government Receipts to Economic Fluctuations and the Allocation of Counter-Cyclical Revenue Sharing Grants."

[63] Crider, *The Impact of Recession on State and Local Finance.*

[64] Vogel's estimated equation is

$$\ln R = 3.04 + 0.0151 \ln R + 1.39 \ln P + 0.37 \ln (GAP)$$
$$(61.2) \qquad (34.7) \qquad (10.4)$$
$$R^2 = 0.99 \qquad DW = 1.27$$

[65] Bahl, Jump and Schroeder, "The Outlook for City Fiscal Performance in Declining Regions."

sionary gap tends to increase expenditures immediately but results in a decrease in expenditures during the following fiscal year.[66] When both the current and deferred effects are considered, the recession impact on expenditures is negligible. Again, it is important to note that these are estimates based on how much State and local governments actually spend, hence may include far more than just the effects of recession.

Crider, assuming that real earnings of State and local government employees declined by 1.4 percent between 1973 and 1975 because of the recession, estimates a $3 billion decline in expenditures.[67] This was partially offset by a $1 billion increase in State and local government spending for welfare and related services, hence, a $2 billion recession-related decline. As does the ACIR, he effectively concludes a miniscule expenditure effect of recession.

Conclusions

The main finding of the ACIR study, *State-Local Finances in Recession and Inflation*, is that the combined fiscal effects of recession and inflation on aggregate State and local government finances are not "excessively severe."[68] While this result correctly describes their findings, it is misleading. Indeed, the conclusions one might draw from this very brief survey are that the effects of inflation and recession are severe for some hard-pressed State and local governments and may be a substantial and increasing problem for the entire sector.

Studies of the 1973–76 period place the revenue loss due to recession at 5 to 10 percent of total State and local government revenues, with the 10-percent loss a more realistic estimate at the height of the recession. For some governments, notably those located in the declining regions and State governments with highly elastic tax structures, the revenue loss was estimated as high as 20 percent. Little impact on State and local government expenditures could be found. Several conclusions might be drawn from these results. First, even a 5 to 10 percent loss in revenue potential is considerable and a 15 to 20 percent loss for some governments is disastrous. Second, many of those States which have elastic revenue structures and are therefore most susceptible to recession impacts are located in the declining region. Third, even these estimates understate the fiscal impact of recession in that they show the loss in revenue potential but do not adjust for the discretionary actions taken by these governments in the face of revenue loss. Hence, the actual revenue growth in Massachusetts may be 20 percent less than its full employment/noninflationary amount in 1976, but the gap may have been 30 percent if the State and local governments had not increased tax rates to make up for some of the loss. Finally, expenditure impacts have not been estimated as important, yet most surveys show that the recession induced important program cutbacks and deferrals.

The inflation studies are also subject to the problem of whether and how to count the induced fiscal adjustments resulting from rising

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[66] ACIR, *State-Local Finances in Recession and Inflation*, pp. 80-81.
[67] Crider, *The Impact of Recession on State and Local Finance*.
[68] ACIR, *State-Local Finances in Recession and Inflation*, pp. 80-81. It should be noted that they caution and demonstrate that this conclusion does not hold for all States.

prices. The best of the work seems to imply an impact resulting in a 5 to 10 percent loss in purchasing power of State and local government revenues during the 1972–74 period. The effect cooled off thereafter and inflation-induced revenue and expenditure increases were about parallel between 1974 and 1976. At least three important implications for the future might be drawn from this work: Local governments, which are more labor intensive and more reliant on property taxation will be hurt most; past history suggests that when the inflation rate rises to high levels, as in 1974, the impact on expenditures outstrips that on revenues; another result of inflation is service level adjustments and cutbacks which may have longer run effects.

One cannot easily infer the future from these studies, and there are not reliable models which allow forecasts. But these results do give some basis for judging the probable impacts of inflation and business cycles on State and local government finances. Inflation rates are likely to remain high (relative to real GNP growth) in the future. This will harm local governments most because of their labor intensive expenditure base and their reliance on the property tax. As long as inflation and slow economic growth combine to keep real private earnings from growing, there will be heavy voter resistance to discretionary attempts to capture the inflation-induced growth in property values. Among local governments, those with already high property tax rates and little new construction, and those with stronger public employee unions—the older central cities—will be hurt most. A buffer against this inflation effect is the possibility of increased State aid since inflation could increase State revenues by more than it increases a much less labor-intensive expenditure base. The States that stand to gain most are those with progressive income tax structures, broad-based sales taxes, and relatively less direct expenditure responsibility. This includes many of the older States in the North, but there is some question about the ability of these States to withstand further increases in the effective tax rate. Indeed, New York is a good example of a State whose progressive tax structure has captured inflation-induced revenue increases but where an already high average tax rate is forcing tax reductions. Still, we are led once again to the conclusion that State government discretionary action will play a pivotal role in determining local government fiscal health.

If inflation occurs in concert with recession, the situation is altered to the detriment of State governments because they lose some of the revenue increments captured by inflation. Those States with less elastic revenue structures suffer less from recession, but on the other hand, they gain less from inflation. The most important feature of recession, however, is that some State and local governments suffer more than others. Again, it is those governments in the declining regions whose economies suffer most during recession. Therefore, older central cities suffer disproportionately heavier revenue losses during recession and are located in States which are likely to be facing a similar situation, therefore reducing the chances for marked increases in State aid. If this comes at a time when inflation is driving up local costs but having little effect on property tax revenues, these central cities become doubly damned.

A repeat of the 1973–75 combination of high unemployment rates, a differentially more severe recession effect in the industrialized

Northern States, and double-digit inflation could wreak havoc on State and local government budgets. A 5 to 10 percent decline in the purchasing power of revenues *and* a 5 to 10 percent shortfall in potential revenues would not be an impossible outcome, even for the State and local government sector in aggregate.

V. The Effects of Regional Shifts in Population and Economic Activity [69]

The shift in economic activity from the Northeastern and Midwestern industrial regions to the Southeast and Southwest has by now been thoroughly documented.[70] The financial problems of state and local governments are not so well documented, but their presumed existence has dominated Federal grant policy for the last decade.[71] Surprisingly, the contribution of these regional shifts to the fiscal health of governments has been given little systematic attention. The result is that neither the linkage between changes in the economic base and fiscal health, nor the effects of regional shifts on governmental fiscal choices, are well understood. Nowhere has this shortfall in knowledge shown up so clearly as in the formulation of remedial public policy to deal with the fiscal problems of State and local governments in declining regions.

Perhaps it is because the relationship between the economy and the fisc is so difficult to untangle and because State and local goverments have so little control over the performance of regional economies that policy analysts have turned in other directions to grapple with fiscal problems.[72] There probably isn't a more glaring example of this misunderstanding than the proposed solutions to the New York City fiscal problem. At least in the early stages much more attention was focused on the financial management issues which surrounded the New York City and State financial near disasters than on the fiscal implications of the economic decline which was taking place. As a result, it should come as no great surprise that remedial management policies and a temporary Federal assistance program have done little to deal with the City's fundamental long-term fiscal problems.

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[69] This chapter is an extension of my previous research on this subject. Earlier versions of this research are, "National Policy Toward Regional Change: Alternatives to Confrontation," presented at a September 1977 conference, "National Policy Toward Regoinal Change, held at the LBJ School of the University of Texas; "Regional Shifts in Economic Activity and Government Finances in Growing and Declining States," in *Tax Reform and Southern Economic Development* ed. by Bernard Weinstein (Research Triangle Park, North Carolina: Southern Growth Policies Board, 1979), pp. 17–87; and "Fiscal Adjustments in Declining States," (with Larry Schroeder) presented at a March 1979 conference, "Municipal Fiscal Squeeze: Problems and Potentials," Miami, Florida.

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

[71] See for examples George E. Peterson, "Finance," in *The Urban Predicament*, ed. by William Gorham and Nathan Glazer (Washington, D.C.: The Urban Institute, 1976); Roy Bahl, Bernard Jump, Jr., and Larry Schroeder, "The Outlook for City Fiscal Performance in Declining Regions," in *The Fiscal Outlook for Cities*, ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1978), pp. 1–47.

[72] 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*, ed. by George Sternlieb and James W. Hughes (New Brunswick, New Jersey: The Center for Urban Policy Research, State University of New Jersey, 1975), pp. 197–220 and Roy Bahl, Alan Campbell, and David Greytak, *Taxes, Expenditures and the Economic Base: A Case Study of New York City* (New York: Praeger, 1974).

Just as New York City's financial problems were so severe that the underlying economic causes were largely overlooked, the South's economic bonanza has obscured what may be serious and growing State and local government fiscal problems. Growing industry and per capita income are leading an infrastructure and human capital investment program which in turn implies long-term debt and maintenance requirements and an increasingly costly public sector. Will future economic growth in the region be adequate to sustain public sector operations at "competitive" tax levels? Again the answer depends on what one can say about the relationship between the growth in public budgets, and economic growth and structural economic change.

The objective in this chapter is to describe and analyze the linkage between regional variations in economic and demographic change and State and local government finances. For the declining regions, particularly the Mid-Atlantic States, this analysis shows an imbalance between the growth in public sector activities and the growth in the capacity to finance public sector activities. For some States this has resulted in what might be termed *an overdeveloped public sector;* i.e., a level of government activity which cannot be sustained. The overexpansion of public sector activities may hold an important lesson for Southern States which are now in a growth period and facing the same set of factors which drove up government costs in the North: Inflation, rapid immigration, growing public service demands, and increasing union strength. Such an analysis requires that careful attention be paid to the setting within which the problems of growth and decline must be dealt—particularly the structure of government and the structure of intergovernmental relations with the State.

A bias in this paper should be stated at the outset. Regional shifts in population and employment are not undesirable *per se*, hence their reversal should not be the object of remedial public policy at the national government level. A trend toward interregional income equality and a growing interstate homogeneity in the quality of public services is not detrimental to the Nation's 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 the effects of unemployment, poverty, and the ability of State and local governments to finance and deliver adequate services. In a sense, all three of these concerns can be translated into a more general concern for the distribution of income—the concern for the share of purchasing power and public services accruing to low income families. Unfortunately, these more fundamental issues have been all but forgotten in a national policy debate about how the Federal Government should divide its assistance among growing and declining States.

Regardless of one's view as to where problems are most serious or 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 is essential to formulating a remedial public policy. This chapter 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 ferreted out, some form of aggregation of these jurisdictions must be used. Since the major concern here 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. 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,[73] East South Central and West South Regions.[74]

The danger with such aggregation is that there remain very wide differences in fiscal structure and fiscal and economic performance across States in a region and even across local jurisdictions within a State. For example, in terms of fiscal structure, Texas is more like Ohio than is West Virginia, and in terms of economic and population expansion, Atlanta is more like Syracuse than Houston. The reader should remain cognizant of such variations, especially when this analysis is overenthusiastic in identifying "clear" regional variations.[75]

The Existing Pattern of Regional Variations

Several characteristics of State fiscal systems are crucial to an understanding of variations among regions in State/local revenue and expenditure patterns and to an explanation of how these variations have been affected by regional shifts. These include:

(a) The assignment of expenditure and financing responsibility between the state and its local governments;
(b) The structure of local government and the potential for regionwide service delivery or financing;
(c) The level and functional composition of expenditures;
(d) The level of public employee compensation, public employment, and the importance of public employee unions;
(e) The level of taxation and its composition by major sources;
(f) The reliance on debt and Federal grants as financing sources; and
(g) Central city/outside central city disparities in local government revenues and expenditures.

While these fiscal characteristics are studied below in terms of interstate and interregional comparisons, the substantial heterogeneity within regions and in some cases within States, should be kept in mind.

REVENUE AND EXPENDITURE ASSIGNMENT

There are two approaches to identifying regional variations in the relative importance of State and local governments. One is to study the characteristics of Southern and Northern States and to present

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[73] Excluding the District of Columbia.

[74] The States included in each region are enumerated in the text tables which follow. 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* (Washington, D.C.: Economic Development Administration, U.S. Department of Commerce, Government Printing Office, November 1976), p. 2.

[75] Another important limitation of this analysis is that only the Northern and Southern Tier States are included. The West, a major growth area, is not considered. The reasons for this exclusion are simply time and resource limitations. The justification is that it seemed that the Southern Tier States would be sufficient to demonstrate the fiscal response differences between growing and declining regions.

whatever pattern emerges. The other is to devise an objective system for classifying all States and to examine the results for the two regions. The latter approach was taken in a recent ACIR study which classified State fiscal systems and is summarized here.[76]

To develop a State fiscal classification scheme, expenditure and financing data were gathered for total State and local expenditures and for four specific expenditure functions: Education, highways, public welfare, and health-hospitals for 1967 and 1972. From these data, nine specific fiscal characteristics were measured. The first three—*percent of State and local government expenditures financed by Federal, State, and local sectors, respectively*—represent the relative financing responsibilities of the three governmental levels. The second group of fiscal characteristics—*State and local direct expenditure shares*—describe final spending responsibilities rather than original source of financing of State and local governments. The sixth characteristic, *per capita expenditures*, is included to capture the scope rather than the division of fiscal responsibilities among the States. The seventh variable is *State grants to local governments as a percent of total State government expenditure* and is meant to separate State governments that dominate financing into two groups: Those that retain heavy direct expenditure responsibility, and those that pass expenditure responsibility to localities via grant systems. An eighth indicator is revenue effort, defined as *State plus locally financed expenditure expressed as a percent of State personal income.* Finally, the *share of State and local government revenues accounted for by the individual income tax* is included to approximate the progressivity of State taxation systems.

The 50 State fiscal systems described by these nine characteristics exhibit many varied and distinctive combinations of intergovernmental relationships. That some general patterns emerge indicates that although each State may be unique, certain common patterns of State and local fiscal relationships exist.

Based on this analysis, the 50 States were grouped into categories of high, moderate, and low financing responsibilities, expenditure shares, and per capita spending levels. These groupings were used to cross-classify State and local fiscal systems as one of three major types: *State government dominated* in terms of both expenditure responsibility and origin of financing; *local government dominated;* and *mixed systems.* These results are described in Table V–1.

Though no systematic relationship could be found between region and this taxonomy of intergovernmental arrangement, it may be noted that 9 of the 16 Southern Tier States exhibit a high State financing responsibility and a moderate to a high State expenditure responsibility. Only one Southern State, Texas, is to be found in the locally dominated group. By contrast, only 2 of the 14 Northern Tier States—Rhode Island and Vermont—may be classified as State-dominated, while 7 of the 14 Northern Tier States may be classified as locally dominated.

A correlation analysis confirms the argument that Southern States in general tend to have more State-dominated fiscal systems. Those

[76] Advisory Commission on Intergovernmental Relations, *Federal Grants: Their Effects on State-Local Expenditures, Employment Levels, Wage Rates.* (Washington, D.C.: U.S. Government Printing Office, February 1977).

States in which state government has a heavier financing and direct expenditure share tend to be significantly lower income, less urban, and less populous (see Table V–2).

TABLE V-1.—CLASSIFICATION OF STATE FISCAL SYSTEMS: NONWELFARE EXPENDITURES OF STATE AND LOCAL GOVERNMENTS, 1972

	High State expenditure responsibility	Moderate State expenditure responsibility	Low State expenditure responsibility
High State financing responsibility:			
High expenditure per capita	Alaska, Delaware, Hawaii, Vermont.	----------	
Moderate expenditure per capita	Idaho, Utah, West Virginia.	Louisiana, New Mexico	
Low expenditure per capita	Kentucky, South Carolina.	Arkansas, Mississippi, North Carolina, Oklahoma.	
Moderate State financing responsibility:			
High expenditure per capita	Montana, Wyoming	Arizona, Maryland, Oregon, Washington.	Minnesota, Wisconsin.
Moderate expenditure per capita	North Dakota, New Hampshire.	Connecticut, Pennsylvania.	Florida.
Low expenditure per capita	Maine, Rhode Island	Alabama, Georgia, Tennessee, Virginia.	Iowa.
Low State financing responsibility:			
High expenditure per capita	----------	----------	California, Nevada, New York.
Moderate expenditure per capita	----------	Colorado, Kansas, Nebraska, South Dakota.	Illinois, Indiana, Massachusetts, Michigan, Missouri, New Jersey.
Low expenditure per capita	----------	----------	Ohio, Texas.

Notes: High, moderate, and low designations for each category relate to whether the State placed in the top 15, middle 20, or bottom 15 among States. State expenditure responsibility is the State share of total State and local direct expenditures. State financial responsibility is the share of total State and local expenditures financed by the State. Per capita expenditures are total State and local expenditures per capita.

Source: Metropolitan studies program, Maxwell School of Citizenship and Public Affairs, Syracuse University. Calculated from various data sources.

TABLE V-2.—CORRELATIONS BETWEEN FISCAL CHARACTERISTICS OF STATES AND SOCIAL AND ECONOMIC VARIABLES, 1972

	Per capita income	Percent urban	State population
Federal financing share	[1]—0.654	[1]—0.466	[1]—0.382
State financing share	—.122	—.247	[1]—.327
Local financing share	[1].463	[1].451	.461
State direct expenditure share	[1]—.340	[1]—.457	[1]—.595
Local direct expenditure share	[1].340	[1].457	.595
Per capita expenditures (dollars)	[1].551	[1].119	.014
Grants as share of State expenditures	—.189	[1]—.334	—.583

[1] Statistically significant at the 5-percent level.

Source: Advisory Commission on Intergovernmental Relations, "Federal Grants: Their Effects on State-Local Expenditures, Employment Levels, Wage Rates" (Washington, D.C.: Government Printing Office, February 1977).

LOCAL GOVERNMENT STRUCTURE

A second important difference between Northern and Southern Tier States is the structure of local government in metropolitan areas. The stereotype difference would be North Central cities with heavy concentrations of the poor, an antiquated, dilapidated infrastructure

surrounded by more affluent suburbs, and with little hope of annexation of consolidation. Many if not most Northeastern metropolitan areas would fit this stereotype. The Southern Tier cities might be painted as newer, subject to less city and suburb wealth difference and as having been more successful at annexation and consolidation. The examples of Jacksonville, Miami, Nashville, Houston, and Baton Rouge come quickly to mind.

There is more than impressionistic evidence to support this stereotype. Sacks finds striking regional differences in the percent of metropolitan area populations residing within the central city.[77] As may be seen in Table V–3, he found an average of 60 percent of metropolitan population residing inside central cities in the South as compared to 33 and 34 percent respectively in the East and Midwest.[78] Moreover, he shows that between 1970 and 1976 this percentage remained approximately constant in the Southern and Western metropolitan areas but declined slightly in the East and more so in the Midwest. On the average, central cities in the East and Midwest were losing population while those in the South and West were gaining. The conclusion seems clear that central cities in the South and West are a more dominant force in their respective metropolitan areas. Much of this advantaged position of Southern central cities must be attributed to the greater success of the South in consolidation attempts and/or in using more area-wide financing mechanisms. Marando observes 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.[79] Sacks has studied acreage increases for central cities between 1970 and 1976 and finds virtually no evidence of annexation in the East (see Table V–3).

TABLE V–3.—CITY-SUBURB DISPARITIES IN POPULATION FOR 85 LARGEST SMSA's: UNWEIGHTED AVERAGES

	Number of SMSA's	Central city as a proportion of total SMSA population		Percent increase in population 1970–76		Percent increase in central city acreage 1970–75
		1970	1976	Central city	Suburbs	
East	18	0.35	.033	—0.08	0.05	0.
Midwest	22	.48	.44	—.04	.10	.03
South	27	.60	.60	.07	.11	.20
West	18	.44	.45	.10	.22	.08
Total	85	.47	.46	.01	.12	.08

Source: Department of Housing and Urban Development, "Changing Conditions in Metropolitan Areas" Urban Data Reports, No. 1 (Washington D.C.: Office of Policy Development and Research, June 1979).

[77] Sacks has been tracking changes in city-suburb disparities for several years. See Department of Housing and Urban Development, *Changing Conditions in Metropolitan Areas,* Urban Data Reports, Number 1 (Washington, D.C.: Office of Policy Development and Research, June 1979).

[78] Sacks' East and Midwest regions correspond approximately to our Northern Tier, and his Southern region to our Southern Tier, with the following exceptions: in the Midwest he includes Des Moines, Wichita, Minneapolis, Kansas City, St. Louis, and Omaha and in the East he includes Washington, D.C.

[79] 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.

One should not jump too quickly to the conclusion that the *relatively* better economic position of Southern cities implies an absence of fiscal problems in the Southern region. Most of the Southern poor live outside metropolitan areas. While rural poverty may not be directly related to the fiscal problems of cities, it does affect State government, small towns and rural counties.

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 Table V–4).[80] This pattern holds for most States within the two regions. Only one Northern Tier State (Indiana) spends less than the Southern mean, and only two Southern Tier States (Delaware and Maryland) spend above the Northern mean. The variation in the per capita expenditure levels of the 14 Northern States about this regional mean is almost identical to the variation among the 16 Southern States.[81] 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. It means that Southern States have very low public service levels, if expenditures are any indication of services provided. It also means that Southern States may expand tax and spending levels by a significant amount before reaching "noncompetitive" levels.

In terms of expenditure distribution, the Southern States allocate a slightly greater share of total public resources to education and there is substantial homogeneity among the Southern States in the education share of the total budget. The same holds true for the share devoted to health and hospitals, though there is much greater variation among States in both 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—Indiana—allocates as little to public welfare as the Southern mean of 11.9 percent. Indeed, if Southern States were to make the same per capita welfare expenditures as Northern States, the North-South gap in per capita expenditures would be cut from 17 to 9 percent. This suggests

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[80] 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 the median, there remains the choice between 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

$$\sum_{i=1}^{n} E_i / \sum_{i=1}^{n} P_i,$$

and the latter,

$$\sum_{i=1}^{n} (E_i/P_i),$$

where E=expenditures and P=population, and n=number of States included. 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 region. Our interest in this chapter is with the fiscal decisions of jurisdictions, hence we stay with the "average State" measure as best for our purposes. Nevertheless, in each table we present both a weighted and an unweighted average.

[81] Relative variation is measured by the coefficient of variation, or the standard deviation as a percent of the mean. A larger coefficient shows a greater dispersion of the States about the mean for some variable, and the smaller of the two coefficients would indicate a more homogeneous pattern.

that the overall advantage of Northern States in public service levels may be overstated by public expenditure comparisons. It also suggests that Federal assumption of welfare financing holds potentially more important fiscal relief implications for the Northern Tier of States.[82]

TABLE V-4.—EXPENDITURE AND EMPLOYMENT CHARACTERISTICS OF STATE AND LOCAL GOVERNMENTS, BY REGION IN 1977

State and region	Per capita expenditures	Percent of current expenditures			State and local government employees	
		Education	Welfare	Health and hospitals	Per 10,000 population	Average wage
NORTHERN TIER						
Weighted	$1,342	37.8	17.0	7.9	459	$1,144
Unweighted	1,261	39.5	16.3	7.3	459	1,076
East North-Central:						
Weighted	1,218	42.8	15.8	8.2	447	1,132
Unweighted	1,208	43.4	15.3	8.5	451	1,112
Illinois	1,266	40.7	17.3	6.6	439	1,205
Indiana	953	47.3	11.0	11.3	443	967
Michigan	1,390	41.9	17.9	8.9	468	1,258
Ohio	1,109	44.6	13.1	8.6	425	1,041
Wisconsin	1,322	42.6	17.2	7.4	478	1,087
Middle Atlantic:						
Weighted	1,502	34.0	18.0	8.0	470	1,184
Unweighted	1,429	35.6	17.4	7.3	464	1,159
New Jersey	1,327	38.2	14.3	5.7	477	1,157
New York	1,795	31.5	18.5	9.0	512	1,255
Pennsylvania	1,166	37.0	19.5	7.1	402	1,065
New England:						
Weighted	1,268	35.8	17.3	6.0	464	1,065
Unweighted	1,221	38.1	16.5	6.2	463	1,004
Connecticut	1,152	38.0	13.7	6.0	426	1,086
Maine	1,120	37.9	16.8	4.4	455	881
Massachusetts	1,378	33.3	18.9	7.5	485	1,114
New Hampshire	1,116	40.3	15.1	5.7	446	927
Rhode Island	1,283	37.3	19.8	7.8	474	1,081
Vermont	1,280	41.9	14.5	5.9	491	933
SOUTHERN TIER						
Weighted	1,062	42.4	11.3	11.2	499	912
Unweighted	1,082	42.2	11.9	10.8	497	901
South Atlantic:						
Weighted	1,105	42.4	9.9	11.3	514	943
Unweighted	1,145	42.6	10.4	10.5	514	949
Delaware	1,458	44.6	10.4	5.6	531	1,068
Maryland	1,453	42.6	12.0	7.7	524	1,127
North Carolina	982	48.0	9.5	10.2	505	908
Virginia	1,105	43.3	11.2	9.3	510	937
South Carolina	979	42.7	10.0	13.9	506	835
Georgia	1,003	39.0	11.9	16.7	543	838
Florida	1,099	40.1	6.5	12.7	508	983
West Virginia	1,083	40.7	11.5	8.0	489	892
East South-Central:						
Weighted	1,003	41.3	13.4	11.5	472	851
Unweighted	1,005	41.4	13.4	11.6	473	846
Alabama	1,002	42.6	12.4	13.7	480	883
Kentucky	1,006	41.9	16.8	6.7	422	890
Mississippi	1,018	41.5	11.9	13.3	494	766
Tennessee	992	39.5	12.4	12.5	494	846
West South-Central:						
Weighted	1,033	43.3	12.2	10.8	491	898
Unweighted	1,033	42.3	13.3	10.6	486	860
Arkansas	876	43.6	15.3	10.0	447	790
Louisiana	1,207	37.8	11.9	12.8	508	863
Oklahoma	1,045	42.5	14.7	8.8	498	848
Texas	1,003	45.4	11.2	10.8	492	937

Source: U.S. Bureau of the Census, "Government Finances" in 1976-77, series GF 77-5 (Washington, D.C.: U.S. Government Printing Office, 1977); and, U.S. Department of Commerce, "Current Population Reports," "Annual Estimates of States," series P-25, No. 727, July 1978. "Resident Population and Public Employment in 1967, 1972, 1975, 1977," GE 67, 72, 75, 77 (Washington, D.C.: U.S. Government Printing Office, 1968, 1973, 1976, 1978).

[82] The share of Federal financing of welfare was 49.1 percent in the North and 63.2 percent in the South in 1977.

Many may be surprised to learn that there is a greater average level of State and local government employment relative to population, in Southern than in Northern States (see Table V–4). In the Southern tier, 9 of the 16 States are at or above the U.S. median of 476 employees per 10,000 population; while only 1 of the 14 Northern States is above this median. Though there are a few outliers, there is relatively little variation among States in either region. The variations among the Northern States range from Pennsylvania's 402 State and local government employees per 10,000 population to New York's 512; while in the South, the spread is not as great, ranging from Kentucky's 422 to Georgia's 543 employees per 10,000 population.

The higher level of public employment in Southern States, (more than 8 percent above the Northern level), is not easily explained, but a number of hypotheses might be offered. It would be consistent with an economies of scale hypothesis; the more populous, more highly urbanized States conceivably would need fewer employees to provide a given amount of public services. Smaller, more rural and more spread out Southern States may require a greater number of public employees to service any given amount of population. Likewise, the lower density may leave much less room for capital-labor substitution, leaving the Southern States with a more labor-intensive public sector.

On the other hand, the higher level of public employment in the South does not square with the hypothesis that public employment tends to be higher in slower growing or declining regions. There is some evidence that an association exists between the level of local government employment and the rate of population growth. Muller compares 12 growing cities and 14 declining cities on the basis of per capita employment in functions common to city governments. 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.[83] Perhaps even more interesting is his finding that the gap has 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.

A third explanation could be that the more centralized governmental structure which generally prevails in the Southern States somehow leads to greater levels of public employment. This is not consistent with *a priori* reasoning which would suggest that centralization would eliminate much duplication and, *ceterus paribus*, lead to lower employment levels. The problem here is that all other factors are not held constant.

Finally, the public employment level differences may reflect the downward sloping demand curve for public employees; i.e , lower employment levels in the Northern states are a result of higher wage levels in those States. Average public employee wages are higher in Northern Tier by almost any standard (Table 4–V). While per capita income is 14 percent higher in the North, the gap in average public sector wages is 19 percent. The pattern holds for nearly all States in the two regions. There are a number of possible reasons why public sector

[83] Muller, "The Declining and Growing Metropolis—A Fiscal Comparison," pp. 203–206.

workers receive such low wages in the Southern States: Low productivity, the absence of strong unions, a lower opportunity wage in the private sector, or the possibility that governments in the Southern States do not perform as wide a range of public subfunctions and hence do not require as expensive a mix of labor skills. Muller has also 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 the older, more congested cities of the Northeast and industrial Midwest.

Another possibility for explaining these regional variations is that such comparisons are not valid because of data and conceptual measurement problems. There are not good disaggregated data on the wage levels of public employees at various levels of seniority or in various occupations. The estimates presented in Table V–4 are of average payroll per full-time equivalent employee. This measure misses the wide variation in pay levels by class of employees, and since October payrolls are used, mixes 9 month employees (teachers) with 12 month employees. Moreover, the inclusion of total payroll but only full-time equivalent employees introduces destortions created by payments to part-time employees. The variation in this distortion across States is unknown.

Even if payroll per full-time equivalent employee is a reasonable measure of interstate variations in the average wage, there remains the problem of measuring interstate variation in the level of pensions and fringe benefits. Again, there are inadequate data to make proper cross-State comparisons, and one must be content to assume that interstate variations in the average wage, as measured above, accurately reflect interstate variations in total compensation.[84] There is good reason to expect that it does not, since most benefits are tied to wage levels; e.g., pensions, social security contributions. Hence, it is likely 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 accounting for cost-of-living differentials which may tend to change this pattern of interstate differences. To estimate the influence of regional cost-of-living differences, we have deflated average wages in 1975 with the HUD estimated fair-market-rent index for that year.[85] When adjusted for living cost differentials in this manner, the advantage of Northern Tier average public sector wages over Southern

[84] 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 Financial Management* (Washington, D.C.: Municipal Finance Officers Association, 1978), pp. 74–85.

[85] HUD has established fair-market-rent levels for about 3,100 areas throughout the Nation in conjunction with their Section Eight Lease Housing Program. One might support the use of these data to construct a cost-of-living index because: (a) housing costs make up a large proportion of total consumption; and (b) much of the variance in living costs might be attributed to housing. Following this procedure, we have taken the indices computed for 501 formula cities under the HUD community development block grant program, aggregated and averaged the indices by State and then compared them to the U.S. average to develop an index. For a discussion of the potential use of the HUD index as a cost-of-living measure in another context see the Comptroller-General of the United States, "Why the Formula for Allocating Community Development Block Grant Funds Should be Improved" (Washington, D.C.: General Accounting Office, December 1976).

Tier falls from about 20 percent to an almost negligible 2 percent. This doesn't demonstrate that North-South public employee wage differences are primarily due to cost-of-living differences.[86] However, this calculation based solely on a housing price index would suggest that price level differences may explain a substantial proportion of regional public sector wage rate differences.[87]

If all of these caveats are disregarded, or if one could live with the assumption that the North-South bias created by 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 we have further evidence that the higher level of per capita spending in the Northern States substantially overstates the difference in the average quality of services provided between the two regions.

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 financing, 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 substantially higher on a per capita basis (see Table V–5). If these per capita debt levels are adjusted for differences in per capita income, a somewhat different picture emerges. Comparisons of the debt-income ratio, which measures the level of debt relative to capacity to carry debt, show that the highest levels of debt burden belong to those States thought to be facing the most serious fiscal crisis; i.e., New Jersey, New York, Pennsylvania and Massachusetts. The level of debt in the East North Central States is lower than that in *any* Southern subregion, attesting again to the problems with inferences from regional averages.

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 Table V–6). This difference is largely a reflection of the division of financial responsibility for services between the State and local levels. Where local government involvement in the delivery of services is strong, there tends to be much heavier use of the property tax. But, as shown above, the Southern States tend to be more State government dominant, hence there is heavier reliance on nonproperty 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,

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[86] There are not adequate deflators for this purpose. The choices here were between the BLS levels of living for low, intermediate, and high income families, and the HUD index of rent. We chose the latter because the BLS data are available only for 41 metropolitan areas and this would not seem to provide adequate regional coverage. See U.S. Department of Labor, Bureau of Labor Statistics, "Autumn 1976 Urban Family Budgets and Comparative Indexes for Selected Urban Areas (Washington, D.C.: Government Printing Office, April 27, 1977), pp. 77–369.

[87] This faster rate of growth in prices in the Southern region is consistent with the results of Brunson and Lynch, "Comparative Growth and Structure: The South and the Nation," p. 14.

where there is 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 reliance is greater on property taxation, even the tax base growth generated by inflationary increases in income will not be fully or easily captured.[88]

TABLE V-5.—DEBT LEVELS: BY REGION FOR 1977

State and region	Long-term debt outstanding	
	Per capita	As a percent of personal income
Northern tier:		
Weighted	1,193	16.2
Unweighted	1,053	14.9
East North-Central:		
Weighted	767	10.4
Unweighted	744	10.2
Illinois	858	11.0
Indiana	465	6.7
Michigan	915	12.0
Ohio	683	9.6
Wisconsin	797	11.6
Middle Atlantic:		
Weighted	1,657	22.2
Unweighted	1,500	20.1
New Jersey	1,082	13.5
New York	2,144	28.4
Pennsylvania	1,275	18.2
New England:		
Weighted	1,214	16.9
Unweighted	1,087	16.2
Connecticut	1,469	18.2
Maine	815	14.2
Massachusetts	1,245	17.2
New Hampshire	781	12.0
Rhode Island	1,048	15.5
Vermont	1,163	20.0
Southern tier:		
Weighted	798	12.7
Unweighted	867	13.7
South Atlantic:		
Weighted	777	12.0
Unweighted	937	13.9
Delaware	1,896	24.7
Maryland	1,396	18.4
North Carolina	377	6.3
Virginia	707	10.3
South Carolina	712	12.6
Georgia	664	11.0
Florida	741	11.1
West Virginia	1,002	16.7
East South-Central:		
Weighted	827	14.6
Unweighted	821	14.6
Alabama	717	12.8
Kentucky	1,065	17.9
Mississippi	705	14.0
Tennessee	799	13.8
West South-Central:		
Weighted	814	12.6
Unweighted	771	12.5
Arkansas	462	8.3
Louisiana	1,119	18.9
Oklahoma	701	11.0
Texas	804	11.8

Source: U.S. Bureau of the Census, "Government Finances in 1976-77," series GF77-5 (Washington, D.C.: U.S. Government Printing Office, 1977); and, U.S. Department of Commerce, "Current Population Reports," "Annual Estimates of the Population of States," series P-25, No. 727, July 1978, resident population.

[88] David Greytak and Bernard Jump, Jr., "Inflation and Local Government Expenditures and Revenues: Method and Case Studies," *Public Finance Quarterly* Vol. 5, No. 3 (July 1977): 275-302.

TABLE V-6.—REVENUE STRUCTURE: BY REGION FOR 1977

State and region	Percent of own-source revenue from: Property taxes	Sales taxes	Income taxes	Per capita Federal aid	Federal aid as percent of total general revenue
NORTHERN TIER					
Weighted	30.9	14.3	20.7	$283	20.3
Unweighted	33.1	13.4	17.3	291	22.2
East North Central:					
Weighted	29.5	16.2	19.1	248	20.1
Unweighted	29.2	16.5	19.3	246	19.8
Illinois	31.0	19.4	15.6	250	19.6
Indiana	28.6	23.1	13.3	188	18.2
Michigan	29.3	13.6	23.6	311	21.5
Ohio	29.6	13.3	16.4	211	20.0
Wisconsin	27.4	13.2	27.5	269	19.8
Middle Atlantic:					
Weighted	29.7	13.6	23.2	314	20.0
Unweighted	30.9	13.1	20.9	299	20.3
New Jersey	41.7	11.1	12.7	267	19.3
New York	29.1	14.2	25.9	363	19.1
Pennsylvania	21.9	14.1	24.0	267	22.5
New England:					
Weighted	39.8	10.5	17.2	307	22.4
Unweighted	37.4	11.0	13.9	325	25.1
Connecticut	39.3	17.9	8.0	229	17.9
Maine	29.5	19.4	12.6	368	31.3
Massachusetts	41.9	6.5	23.4	328	21.9
New Hampshire	47.8	0	5.8	238	23.0
Rhode Island	33.2	15.4	15.7	369	27.3
Vermont	32.8	6.7	17.9	420	29.4
SOUTHERN TIER					
Weighted	20.4	18.4	11.9	260	23.8
Unweighted	17.2	18.5	14.9	277	25.1
South Atlantic:					
Weighted	21.6	16.3	16.6	261	23.2
Unweighted	19.4	15.8	19.1	279	24.1
Delaware	11.9	0	31.6	343	23.3
Maryland	23.2	9.8	27.5	297	20.6
North Carolina	18.7	15.7	23.9	281	27.4
Virginia	22.6	13.0	19.8	253	22.7
South Carolina	17.0	19.1	18.3	261	25.7
Georgia	22.8	18.4	15.9	272	24.6
Florida	24.5	19.2	2.7	211	19.6
West Virginia	14.5	31.1	13.1	312	28.7
East South-Central:					
Weighted	14.4	23.8	12.7	279	27.1
Unweighted	14.3	23.8	12.8	281	27.3
Alabama	8.1	21.9	13.2	293	28.6
Kentucky	14.5	17.3	22.4	281	26.6
Mississippi	15.7	26.8	10.0	293	28.3
Tennessee	19.0	29.1	5.6	256	25.6
West South-Central:					
Weighted	21.9	18.8	4.1	246	22.7
Unweighted	17.8	18.8	8.8	271	25.1
Arkansas	16.6	19.4	16.3	271	29.1
Louisiana	11.0	23.0	6.5	312	25.8
Oklahoma	16.2	14.6	12.3	286	25.6
Texas	27.3	18.2	0	212	19.6

Source: U.S. Bureau of the Census, "Government Finances in 1976–77," series GF–77, 5 (Washington, D.C.: U.S. Government Printing Office, 1977); and, U.S. Department of Commerce, "Current Population Reports," "Annual Estimates of the Population of States," series P–25, No. 727, July, 1978, resident population.

In terms of the controversial issue of the regional distribution of Federal aid, the Northern States receive, on average, 5 percent more in per capita terms. Dependence on Federal aids as a revenue source is about the same in the two regions. It is interesting to note, however, that during the 1975–77 recovery period, per capita Federal aids increased by a greater amount in the Northern Tier and the revenue dependence on Federal aid actually fell in the Southern Tier.

LOCAL FISCAL PROBLEMS

State-to-State variations in fiscal structure and performance mask differences between regions in the problems facing the largest local

governments within the regions. Indeed, the standard stereotype would have central cities in a substantially worse position than their suburbs in terms of income level, public service levels, and concentration of the poor.

Nathan and Dommel's "hardship index" compares cities both with their surrounding suburban areas and with each other.[89] Of the 14 cities scoring poorest on this hardship index, 11 are in the Northern Tier of States while only 2, Atlanta and Richmond, are in the South. Of the 10 cities found better off, 5 were in the Southern Tier and none in the North.

Sacks, in his latest compendium of metropolitan fiscal disparities, also supports the stereotype.[90] The Southern cities are poorer than Northern cities but much better off relative to Southern suburbs (see Table V–7). Per capita income is higher in Southern and Western Central cities than suburbs, while the reverse is true in the East and Midwest. In all regions, however, the trend is faster income growth in suburbs than cities.

SUMMARY: REGIONAL VARIATIONS IN STATE-LOCAL FINANCES

These data show certain clear differences in fiscal structure and performance between the Northern and Southern Tier States. While there certainly are exceptions to this pattern, the general differences observed would appear to hold for most States in the two regions. First, the Southern Tier States have more State-dominated fiscal systems. This means that they have heavier State government responsibility for both financing and direct expenditures, which in turn means that the growth and distribution of total State and local expenditures is more controllable and that the growth in expenditures is financed from a more elastic revenue source. In the case of the Southern Tier States, the sales tax is relied upon to a much greater extent than the North. The Northeastern and Midwestern States, on the other hand, tend to have more local government-dominated systems. As a result, there is a potential for much greater disparity in public spending levels among jurisdictions within the State and there is much heavier reliance on the local property tax.

With respect to the level of spending, per capita expenditures were 17 percent lower in the Southern States than in the Northern States in 1977; however, a part of this difference is due to the higher level of welfare expenditure in the Northern Tier States. Moreover, since these differences are not adjusted for regional variations in prices, and average public employees wages are much higher in the North, the difference in public service levels may be considerably less than 17 percent. Public employment levels per 10,000 population are greater in the Southern States and do not vary systematically with the rate of population growth of a State.

There is a major difference between the two regions with respect to the fiscal health of their largest local governments. The Northeast and industrial Midwest regions seem to fit the stereotype of declining and

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[89] 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.: Government Printing Office, 1977), pp. 19–26; and "Understanding Central City Hardship," *Politician Science Quarterly*, Vol. 21, No. 1 (Spring 1976): 61–62.

[90] Sacks, *Changing Conditions in Metropolitan Areas.*

poor central cities surrounded by relatively wealthy and less fiscally pressed suburbs. The reverse tends to be true in the South, where the per capital income level in the central city is greater than the suburbs. This advantaged position of Southern central cities can be attributed in part to the newness of the cities and their resulting local government structure which often tends to encompass growing suburban areas. There would appear to be much less jurisdictional fragmentation in the South, in part because of the greater potential for annexation and consolidation during the rapid growth period of the past two decades. To the Contrary, Northern cities which are surrounded by older incorporated jurisdictions, find it all but impossible to expand jurisdictional boundaries.

TABLE V-7.—CITY-SUBURB DISPARITIES IN PER CAPITA INCOME: UNWEIGHTED AVERAGES

Region	Central city per capita income ($)		Ratio of city to suburb per capita income		Percent increase in per capita income, 1970–75	
	1970	1975	1970	1975	Central city	Suburb
East	$3,130.7	$4,313.1	$0.84	$0.83	37.7	41.0
Midwest	3,191.9	4,566.9	.92	.90	43.0	47.0
South	2,929.1	4,219.6	1.05	1.03	51.3	56.2
West	3,407.2	4,987.0	1.03	1.01	45.2	48.8
United States [1]	3,164.7	4,571.7	.96	.94	44.3	48.3

[1] Unweighted averages.

Source: Department of Housing and Urban Development, "Changing Conditions in Metropolitan Areas," Urban Data Reports, No. 1 (Washington, D.C.: Office of Policy Development and Research, June 1979).

Comparative Fiscal and Economic Growth

An understanding of the fiscal problems resulting from the movement of population and economic activity to the South requires analysis of the structure of the State and local government expenditure and revenue responses to this movement. In the discussion below, we consider the determinants of the growth in the capacity to finance public services and the inducements for expansion of public service levels. The three trends at issue here are the fiscal responsiveness to the growth in the economic and demographic base of the region, the extent to which the public expenditure response is demand or supply induced, and the revenue response in terms of its composition by type of tax and in terms of changes in the level of tax effort.[91] The results of this analysis suggest that fiscal activity in the South expanded relatively more in response to an increased level of population, a demand consideration, and was supported by an increased capacity to finance such activity. In the North, fiscal activity also continued to expand, even in the face of a relatively slower growing or in some cases a declining economic and population base. However, the expansion of fiscal activity in the North may be attributed relatively more to increases in the average compensation of public employees.

[91] For a parallel analysis of the New York State economy and fisc, see Roy Bahl, "The Long-Term Fiscal Outlook for New York State," in *The Declining Northeast*, ed. by Benjamin Chinitz (New York: Praeger, 1978), pp. 69–105; and Roy Bahl, *The New York State Economy; 1960–1978 and the Outlook*, Occasional Paper No. 37, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, October 1979).

ECONOMIC AND POPULATION BASE CHANGES

The shift in economic activity from the Northern to the Southern States has been widely if not thoroughly studied. Jusenius and Ledebur have described this shift in terms of population movement,[92] Greenberg and Valente [93] and Garnick [94] have studied the trends in employment, and the Congressional Budget Office has described the pattern of growth in earnings and personal income.[95] 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 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 50 states vary so widely. Nevertheless, population movement, employment level changes, and growth in earnings and personal income give some notion about how regional shifts in economic activity enhance or compromise the ability of State and local governments to finance public services. Four time periods are considered. The 1962–67 period saw the beginning of a Southern movement of population and economic activity which accelerated between 1967 and 1972. The 1972–75 period includes the recession which heightened the sunbelt movement, and the 1975–77 period accounts for some of the effects of the most recent 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 Table V–8 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, however, 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 slightly 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 likely to a flow of income-compensating transfer payments to the Northern States.[96] 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.[97]

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[92] Jusenius and Ledebur, *A Myth in the Making: The Southern Economic Challenge and Northern Economic Decline.*

[93] Michael R. Greenberg and Nicholas J. Valente, "Recent Economic Trends in the Major Northeastern Metropolises," in *Post-Industrial America: Metropolitan Decline and Inter-Regional Job Shifts*, ed. by George Sternlieb and James Hughes (New Brunswick: Rutgers University, 1975), pp. 77–100.

[94] Daniel Garnick, "The Northeast States in the Context of the Nation," in *The Declining Northeast*, ed. by Benjamin Chinitz (New York: Praeger, 1978), pp. 145–159.

[95] Congressional Budget Office, *Troubled Local Economies and the Distribution of Federal Dollars* (Washington, D.C.: Government Printing Office, August 1977).

[96] It is interesting to note, however, that the share of transfer payments in personal income is about the same in the North as in the South (14.0 and 13.8 percent respectively, in 1977).

[97] The convergence in per capita income levels is a national trend of the past two decades. The relative variation (mean as a percent of standard deviation) among 49 states (excluding Alaska) declined from 19.0 percent in 1962 to 11.6 percent in 1978.

TABLE V-8.—PERCENT INCREASE IN PER CAPITA PERSONAL INCOME: BY REGION FOR SELECTED TIME PERIODS

State and region	1962–67	1967–72	1972–75	1975–77	1977 level
NORTHERN TIER					
Weighted	32.5	37.6	28.3	19.3	$7,371
Unweighted	33.2	38.0	28.5	20.0	7,072
East North-Central:					
Weighted	33.4	37.8	29.3	21.3	7,347
Unweighted	33.2	37.9	29.4	22.1	7,256
Illinois	31.3	36.6	32.9	15.1	7,768
Indiana	33.1	36.9	30.0	23.4	6,921
Michigan	38.1	39.3	24.6	27.1	7,619
Ohio	33.1	38.4	28.3	22.3	7,084
Wisconsin	30.7	38.5	31.5	22.7	6,890
Middle Atlantic:					
Weighted	32.2	37.5	27.8	17.2	7,460
Unweighted	31.9	38.3	28.3	17.7	7,514
New Jersey	29.7	40.9	27.6	17.7	7,994
New York	32.2	35.5	25.8	15.6	7,537
Pennsylvania	33.8	38.7	31.5	19.7	7,011
New England:					
Weighted	31.2	37.4	27.0	19.7	7,183
Unweighted	33.7	37.9	27.9	19.4	6,697
Connecticut	31.3	32.7	27.2	18.4	8,061
Maine	34.1	41.0	30.8	20.4	5,734
Massachusetts	28.6	40.1	26.1	19.3	7,258
New Hampshire	31.6	38.7	28.7	20.8	6,534
Rhode Island	36.6	34.0	28.7	19.1	6,772
Vermont	40.1	41.0	25.7	18.6	5,826
SOUTHERN TIER					
Weighted	41.1	49.0	32.4	20.7	6,310
Unweighted	40.9	48.3	32.6	20.8	6,210
South Atlantic:					
Weighted	40.3	52.4	29.5	19.1	6,485
Unweighted	39.2	49.9	30.5	19.3	6,547
Delaware	27.1	36.3	28.6	17.4	7,692
Maryland	29.8	47.7	30.0	17.9	7,571
North Carolina	43.6	51.0	30.2	20.0	5,935
Virginia	41.3	52.0	31.8	19.0	6,864
South Carolina	48.3	53.8	32.3	20.7	5,628
Georgia	46.2	51.4	27.4	19.7	6,014
Florida	36.8	58.4	26.5	18.5	6,684
West Virginia	40.3	48.9	37.0	20.9	5,987
East South-Central:					
Weighted	42.3	50.9	32.7	21.7	5,651
Unweighted	43.3	51.1	32.7	22.0	5,596
Alabama	40.2	52.1	35.0	21.2	5,622
Kentucky	39.1	47.2	35.5	21.8	5,946
Mississippi	52.0	54.0	30.4	24.6	5,031
Tennessee	41.7	51.3	29.8	20.6	5,785
West South-Central:					
Weighted	41.0	42.0	36.9	22.7	6,458
Unweighted	42.0	42.4	36.8	22.5	6,151
Arkansas	44.6	48.8	35.9	23.2	5,540
Louisiana	43.8	37.2	37.0	23.6	5,914
Oklahoma	39.6	41.5	37.1	20.7	6,346
Texas	39.7	42.2	36.9	22.6	6,803

Source: Department of Commerce, "Survey of Current Business," August 1976, August, 1978; "Current Population Reports," series P-25, No. 727, July 1978.

The aggregate personal income trends which lie behind these per capita amounts give perhaps a clearer picture of the implications for the capacity to finance. Between 1962 and 1975, there were substantial increases in money income in both regions, but there was relatively little shift in the composition of income. Income originating in manufacturing in Northern States fell from 25 to 21 percent while income originating in the services rose by about 4 percent. Otherwise, things stayed much the same. Most important, the share of income accounted for by all transfer payments—which may provide less taxable capacity than earnings from goods and service production—remained about the same in both regions. These data offer scant evidence that changes in the composition of income have compromised the tax base during the period studied.

However, in the case of local governments, particularly large central city governments, changes in the composition of personal income may

well have had a dampening effect on potential revenue growth. To the extent that local property tax systems include industrial machinery, equipment, etc., the shift of income composition from manufacturing to services may have depressed the level of property tax revenues. Similarly, the very rapid growth in income generated in the State and local sector in large central cities may not have offset the revenue losses due to the outmovement of manufacturing. This is in part due to the exemption of State and local government properties from the real estate tax and to the fact that they are not included in the business income tax base.[98]

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 Table V–9). 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 important 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. 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 Table V–9, the Southern region has participated to a much greater extent than Northern States in the recovery.

Garnick argues that these regional shifts in national employment shares reflect substantial declines in large Northern Central cities, with central counties of the large SMSA's in particular having been subject to absolute declines in employment (especially manufacturing) at least since 1960.[99] The same pattern has been documented in studies of employment growth in the 10 largest city-counties [1] and in Sacks' more recent estimates of city/suburb employment growth.[2] The Sacks estimates for 1970–77 show employment declines in 14 of 16 Northeastern cities studied, 8 of 20 Midwestern cities, 3 of 28 Southern cities and 4 of 20 Western cities. He estimates the average annual rate of employment growth to be −1.6 percent in these Northeastern cities, −0.3 percent in the Midwest, 3.0 percent in the South and 2.3 percent in the West.[3] Declines were registered in New York, Philadelphia, and St. Louis, with only a modest increment in Baltimore. The largest percent increases in employment were Denver, Indianapolis, Jacksonville, Nashville, and New Orleans.[4]

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 lost are higher income earning families. If outmigration is primarily low income families, service requirements may be reduced by more than taxable capacity thereby enhancing the government's fiscal position. The expenditure "determinants" literature provides some evidence

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[98] These possibilities are examined for New York City in Roy Bahl and David Greytak, "The Response of City Government Revenues to Changes in Employment Structure," *Land Economics*, Vol. 52, No. 4 (November 1976): 415–434.

[99] Garnick, "The Northeast States in the Context of the Nation," p. 188.

[1] Puryear and Bahl, *Economic Problems of a Mature Economy;* and, Roy Bahl, "The Prospects for Urban Government Finances in the 1980s," paper presented at the American Federation of State, County and Municipal Employees Conference (Glen Cove, New York: December 11, 1979).

[2] Sacks, *Changing Conditions in Metropolitan Areas.*

[3] Unweighted averages computed from Sacks, *Changing Conditions in Metropolitan Areas*, Table 24.

[4] Puryear and Bahl, *Economic Problems of a Mature Economy.*

TABLE V-9.—GROWTH IN EMPLOYMENT: BY REGION FOR SELECTED TIME PERIODS

State and Region	1962–67		1967–72		1972–75		1975–77	
	Change	Percent change	Change	Percent change	Change	Percent change	Change	Percent change
NORTHERN TIER								
Weighted	4,193.3	(15.2)	1,835.3	(5.8)	276.2	(0.8)	1,444.3	(4.3)
Unweighted		(16.7)		(7.6)		(1.9)		(6.4)
East North-Central:								
Weighted	2,261.3	(19.4)	944.3	(6.8)	322.4	(2.2)	920.0	(6.1)
Unweighted		(19.8)		(7.5)		(2.4)		(6.4)
Illinois	634.9	17.8	117.6	2.8	109.4	2.5	189.0	4.3
Indiana	315.7	21.6	145.0	8.2	19.7	1.0	147.7	7.6
Michigan	566.8	24.3	212.9	7.3	19.4	.6	275.5	8.8
Ohio	520.6	16.8	318.5	8.8	77.9	2.0	199.3	5.0
Wisconsin	223.3	18.5	150.3	10.5	90.6	6.1	108.5	6.5
Middle Atlantic:								
Weighted	1,396.6	(11.6)	632.9	(4.7)	−117.1	(−.8)	256.5	(1.8)
Unweighted		(12.6)		(6.0)		(−.2)		(2.6)
New Jersey	324.8	15.5	252.8	10.4	26.5	−1.0	141.0	5.2
New York	597.0	9.5	171.9	2.5	−203.4	−2.9	.6	0
Pennsylvania	474.8	12.9	208.2	5.0	59.8	1.4	114.9	2.6
New England:								
Weighted	535.4	(14.1)	258.1	(6.0)	70.9	(1.5)	267.8	(5.8)
Unweighted		(16.3)		(8.6)		(2.5)		(8.2)
Connecticut	180.3	19.0	59.5	5.3	33.8	2.8	59.3	4.8
Maine	37.4	13.4	27.1	8.6	12.9	3.8	30.9	8.7
Massachusetts	215.8	11.1	98.7	4.6	11.5	.5	91.1	4.0
New Hampshire	36.1	17.4	35.7	14.6	13.1	4.7	43.6	14.9
Rhode Island	40.0	13.4	19.8	5.9	−8.9	−2.5	29.5	8.4
Vermont	25.8	23.3	17.3	12.7	8.5	5.5	13.4	8.3
SOUTHERN TIER								
Weighted	3,515.3	(24.7)	3,593.4	(20.2)	1,799.5	(8.4)	1,761.8	(7.6)
Unweighted		(24.0)		(18.7)		(7.2)		(7.5)
South Atlantic:								
Weighted	1,796.2	(25.7)	2,016.2	(23.0)	721.6	(6.7)	734.6	(6.4)
Unweighted		(24.5)		(20.4)		(5.8)		(6.1)
Delaware	41.2	26.4	32.7	16.6	−.1	−.1	6.2	2.7
Maryland	232.9	24.5	175.7	14.9	121.9	9.0	49.3	3.3
North Carolina	342.4	27.2	323.2	20.2	45.6	2.4	158.6	8.1
Virginia	248.4	23.0	313.3	23.6	135.2	8.2	133.0	7.5
South Carolina	144.6	23.8	165.9	22.0	62.3	6.8	96.2	10.0
Georgia	302.0	27.6	310.3	22.2	50.7	3.0	134.0	7.6
Florida	428.6	30.9	658.2	36.2	271.8	11.0	126.8	4.6
West Virginia	56.1	12.5	36.9	7.3	34.2	6.3	30.5	5.3
East South-Central:								
Weighted	676.5	(23.6)	611.8	(17.3)	268.3	(6.5)	389.0	(8.8)
Unweighted		(23.7)		(17.5)		(6.9)		(9.0)
Alabama	160.0	20.2	120.5	12.7	83.1	7.7	104.4	9.0
Kentucky	160.9	23.9	152.5	18.3	76.7	7.8	92.9	8.7
Mississippi	106.2	24.9	106.3	20.0	54.1	8.5	68.7	9.9
Tennessee	249.4	25.7	232.5	19.1	54.4	3.7	123.0	8.2
West South-Central:								
Weighted	1,042.6	(23.6)	965.4	(17.7)	809.6	(12.6)	638.2	(8.8)
Unweighted		(23.3)		(16.4)		(10.4)		(8.8)
Arkansas	101.1	25.5	87.5	17.6	38.4	6.6	68.9	11.0
Louisiana	209.8	26.4	131.5	13.1	113.0	9.9	85.0	6.8
Oklahoma	104.8	17.4	107.9	15.3	85.5	10.5	75.3	8.4
Texas	626.9	23.9	638.5	19.6	527.7	14.7	409.0	9.2

Source: U.S. Department of Labor, "Employment and Earnings: States and Areas, 1939–75" (Washington, D.C.: Government Printing Office, 1977); ———, "Employment and Earnings," May 1978.

that population growth and changing demographic makeup influence the level of public expenditures. Weinstein and Firestine, for example, have carefully studied and analyzed the relations between migration, demographic change, and State and local government budgets and find evidence of positive effects of inmigration on spending levels.[5]

The growth in the Northern Tier has slowed markedly since 1962 and growth has been negligible since 1972 (see Table V–10). 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,

[5] Bernard Weinstein and Robert Firestine, *Regional Growth and Decline in the U.S.* (New York: Praeger Publishers, 1978).

New Jersey, New York, Pennsylvania, and Rhode Island—lost population (see Table V–10). 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.[6] 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.[7]

In terms of population change within metropolitan areas, some evidence is available on the changes by central city/outside central city by race. These data show that Southern cities tended to increase their share of metropolitan area population while Northern cities generally tended to decline as a percentage of metropolitan area population. Sacks has shown that the population decline in the major cities of the East between 1960 and 1970 was predominantly an exodus of white population—no major central city in the East showed a gain of white population between 1960 and 1970.[8]

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.

EXPENDITURE GROWTH

Given the slower growth in financial capacity in the Northern States, a commensurately slower growth in fiscal activity might have been expected. In fact, per capita expenditure growth in the Northern Tier States was above that in the Southern States through 1972 (see Table V–11). Indeed, expenditures grew 20 to 30 percent faster than personal income in both regions in the three earlier time periods considered except for the 1962–72 period, when per capita expenditures in the Northern Tier grew 90 percent faster than per capita income (see Table V–12). 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.[9]

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[6] Jusenius and Ledebur, *A Myth in the Making: The Southern Economic Challenge and the Northern Economic Decline*, pp. 1–5.

[7] For some evidence, see Julie DaVanzo, "U.S. Internal Migration: Who Moves and Why," in *Consequence of Changing U.S. Population*. Hearings before the Select Committee on Population, June 6, 1978, pp. 188–201.

[8] Sacks, *Changing Conditions in Metropolitan Areas*.

[9] It is interesting to consider the consequences of indexed expenditures in this light; i.e., what if each State's expenditure increase (financed from own sources) since 1962 had been tied to its personal income increase. Assuming no change in the distribution of Federal grants, the actual and hypothetical positions in 1977 would compare as follows:

	Per capita expenditures from own sources		Unweighted average			Revenues from own sources as a percent of personal income	
			Per capita Federal grants	Per capita total expenditures			
	Actual	Indexed		Actual	Indexed	Actual	Indexed
Northern tier	$1,024	$770	$291	$1,315	$1,061	14.6	10.9
Southern tier	$834	$700	$277	$1,111	$977	13.4	11.3
Disparity:							
Amount	$190	$70	$14	$204	$84	1.1	.4
Percent	18.6	9.1	4.8	15.5	7.9		

TABLE V–10.—POPULATION LEVEL AND GROWTH: BY REGION FOR SELECTED TIME PERIODS

State and region	Population (thousands)					Percent change			
	1962	1967	1972	1975	1977	1962–67	1967–72	1972–75	1975–77
NORTHERN TIER									
Total	82,785	87,453	90,416	90,313	90,336				
Weighted						5.6	3.4	−0.1	0.02
Unweighted						6.5	4.8	.6	.7
East North-Central:									
Total	36,874	39,347	40,752	40,891	41,056				
Weighted						6.7	3.6	.3	.4
Unweighted						6.9	3.8	.6	.5
Illinois	10,260	10,947	11,209	11,171	11,245	6.7	2.4	−.3	.7
Indiana	4,725	5,053	5,279	5,312	5,330	6.9	4.5	.6	.3
Michigan	7,923	8,630	9,029	9,108	9,129	8.9	4.6	.9	.2
Ohio	9,952	10,414	10,727	10,711	10,701	4.6	3.0	−.2	−.1
Wisconsin	4,014	4,303	4,508	4,589	4,651	7.2	4.8	1.8	1.4
Middle Atlantic:									
Total	35,185	36,544	37,567	37,239	37,038				
Weighted						3.9	2.8	−.9	−.5
Unweighted						4.7	3.3	−.6	−.4
New Jersey	6,385	6,928	7,333	7,336	7,329	8.5	5.8	.04	−.1
New York	17,464	17,935	18,360	18,081	17,924	2.7	2.4	−1.5	−.9
Pennsylvania	11,336	11,681	11,874	11,822	11,785	3.0	1.7	−.4	−.3
New England:									
Total	10,726	11,562	12,097	12,183	12,242				
Weighted						7.8	4.6	.7	.5
Unweighted						7.1	6.3	1.2	1.5
Connecticut	2,640	2,935	3,082	3,095	3,108	11.2	5.0	.4	.4
Maine	990	1,004	1,029	1,059	1,085	1.4	2.5	2.9	2.5
Massachusetts	5,201	5,594	5,778	5,808	5,782	7.6	3.3	.5	−.5
New Hampshire	630	697	776	813	849	10.6	11.3	4.8	4.4
Rhode Island	872	909	971	935	935	4.2	6.8	−3.7	0
Vermont	393	423	461	473	483	7.6	9.0	2.6	2.1
SOUTHERN TIER									
Total	56,619	59,981	64,413	67,431	69,158				
Weighted						5.9	7.4	4.7	2.6
Unweighted						5.4	6.2	3.8	2.2
South Atlantic:									
Total	26,407	28,694	31,284	32,925	33,616				
Weighted						8.7	9.0	5.2	2.1
Unweighted						8.0	7.7	4.0	2.0
Delaware	466	525	569	579	582	12.7	8.4	1.8	.5
Maryland	3,245	3,757	4,063	4,111	4,139	15.8	8.1	1.2	.7
North Carolina	4,736	4,952	5,256	5,436	5,525	4.6	6.1	3.4	1.6
Virginia	4,187	4,508	4,785	4,984	5,135	7.7	6.1	4.2	3.0
South Carolina	2,450	2,533	2,681	2,816	2,876	3.4	5.8	5.0	2.1
Georgia	4,108	4,408	4,758	4,936	5,048	7.3	7.9	3.7	2.3
Florida	5,392	6,242	7,391	8,260	8,452	15.8	18.4	11.8	2.3
West Virginia	1,823	1,769	1,781	1,803	1,859	−3.0	.7	1.2	3.1
East South-Central:									
Total	12,407	12,717	13,143	13,526	13,836				
Weighted						2.5	3.3	2.9	2.3
Unweighted						2.1	3.2	2.9	2.2
Alabama	3,342	3,458	3,514	3,611	3,690	3.5	1.6	2.8	2.2
Kentucky	3,099	3,172	3,301	3,391	3,458	2.4	4.1	2.7	2.0
Mississippi	2,276	2,228	2,279	2,346	2,389	−2.1	2.3	2.9	1.8
Tennessee	3,690	3,859	4,049	4,178	4,299	4.6	4.9	3.2	2.9
West South-Central:									
Total	17,805	18,570	19,986	20,980	21,706				
Weighted						4.3	7.6	5.0	3.5
Unweighted						3.6	6.2	4.4	2.8
Arkansas	1,875	1,901	1,998	2,116	2,144	1.4	5.1	5.9	1.3
Louisiana	3,371	3,581	3,733	3,821	3,921	6.2	4.2	2.4	2.6
Oklahoma	2,435	2,489	2,636	2,725	2,811	2.2	5.9	3.4	3.2
Texas	10,124	10,599	11,619	12,318	12,830	4.7	9.6	6.0	4.2

Source: U.S. Bureau of Census, "Current Population Reports," "Annual Estimates of the Population of States, July 1, 1970 to 1977," series P–25, No. 727, July 1978, resident population.

TABLE V-11.—INDICATORS OF FISCAL EXPANSION: BY REGION FOR SELECTED TIME PERIODS

State and region	Increases in per capita general expenditures (dollars)				Percent increases in per capita general expenditures			
	1962–67	1967–72	1972–75	1975–77	1962–67	1967–72	1972–75	1975–77
NORTHERN TIER								
Weighted	145	390	292	185	44.0	82.3	33.8	16.0
Unweighted	138	341	275	182	42.8	73.4	34.5	17.2
East North-Central:								
Weighted	126	311	270	196	39.7	70.4	35.8	19.1
Unweighted	132	304	261	192	41.0	67.8	34.5	18.9
Illinois	102	377	269	203	32.5	90.2	33.9	19.1
Indiana	122	241	174	126	41.8	58.6	26.6	15.2
Michigan	162	349	339	192	46.7	68.5	39.4	16.1
Ohio	103	244	262	211	35.3	62.1	41.1	23.5
Wisconsin	169	311	264	226	48.2	59.8	31.8	20.6
Middle Atlantic:								
Weighted	172	484	325	181	50.5	94.5	32.6	13.7
Unweighted	157	447	315	187	47.9	91.4	34.6	15.7
New Jersey	115	386	301	223	38.2	92.5	37.6	20.2
New York	216	624	376	181	54.3	101.5	30.3	11.2
Pennsylvania	139	330	267	158	51.0	80.2	36.0	15.7
New England:								
Weighted	125	367	271	166	36.9	79.0	32.7	15.1
Unweighted	135	320	266	172	41.8	69.1	34.4	16.7
Connecticut	105	354	233	93	28.6	74.9	28.2	8.8
Maine	122	270	254	182	41.8	65.3	37.1	19.4
Massachusetts	123	426	294	192	35.8	91.5	32.9	16.1
New Hampshire	104	276	247	187	34.5	67.9	36.1	20.1
Rhode Island	202	228	313	248	68.9	46.0	43.3	24.0
Vermont	154	364	257	132	41.2	69.1	28.9	11.5
SOUTHERN TIER								
Weighted	131	250	255	161	49.6	62.9	39.5	17.8
Unweighted	139	259	247	170	51.8	64.5	38.0	18.6
South Atlantic:								
Weighted	136	270	295	144	52.5	68.3	44.2	15.0
Unweighted	149	292	277	162	55.2	71.0	40.9	16.2
Delaware	271	403	177	271	80.9	66.4	17.6	22.8
Marvland	155	363	404	213	48.6	76.8	48.2	17.2
North Carolina	113	221	264	154	49.4	64.4	46.9	18.6
Virginia	130	258	333	134	52.3	67.9	52.3	13.8
South Carolina	103	262	306	105	50.9	86.0	53.9	12.1
Georgia	118	302	246	80	46.1	80.6	36.2	8.6
Florida	153	222	297	144	53.9	51.0	45.3	15.1
West Virginia	150	301	190	192	59.6	75.2	27.0	21.5
East South-Central:								
Weighted	122	236	228	161	47.8	62.3	37.2	19.2
Unweighted	119	240	224	165	47.0	64.5	36.5	19.6
Alabama	115	240	228	174	47.0	66.6	38.1	21.0
Kentucky	117	215	214	167	40.0	52.4	34.1	20.0
Mississippi	98	284	202	185	39.3	82.0	32.1	22.2
Tennessee	147	221	254	132	61.8	57.2	41.8	15.3
West South-Central:								
Weighted	130	226	210	187	46.6	55.1	32.9	22.1
Unweighted	138	214	210	191	49.6	51.5	33.8	22.5
Arkansas	118	174	215	149	53.3	51.2	42.0	20.4
Louisiana	152	239	215	269	45.8	49.3	29.7	28.6
Oklahoma	168	205	198	176	56.2	44.1	29.5	20.3
Texas	116	237	211	171	43.1	61.5	33.8	20.5

Source: U.S. Bureau of the Census, "Governmental Finances in 1962," series G-GF62, No. 2, October 1963; "———, Governmental Finances, 1966–67, 1971–72, 1974–75, 1976–77," GF67, 72, 75, 77, (U.S. Government Printing Office, Washington, D.C., 1967, 1972, 1975, 1977); "Current Population Report" P-25, 727, July, 1978.

TABLE V-12.—PER CAPITA INCOME ELASTICITY OF STATE AND LOCAL GOVERNMENT EXPENDITURES

	Northern tier			Southern tier		
	Percent change in per capita expenditures	Percent change in per capita income	Elasticity	Percent change in per capita expenditures	Percent change in per capita income	Elasticity
Weighted elasticities:						
1962-67	44.0	32.5	1.35	49.6	41.4	1.20
1967-72	82.3	37.6	2.19	62.9	49.0	1.28
1972-75	33.8	28.3	1.19	39.5	32.4	1.22
1975-77	16.0	19.3	.83	17.8	20.7	.86
Unweighted elasticities:						
1962-67	42.8	33.2	1.29	51.8	40.9	1.27
1967-72	73.4	38.0	1.93	64.5	48.3	1.34
1972-75	34.5	28.5	1.12	38.0	32.6	1.17
1975-77	17.2	20.0	.86	18.6	20.8	.89

Source: Computed from tables 8 and 11.

The first evidence of serious fiscal restraint shows up in the recovery period when the growth in expenditures fell below the growth in income in both regions. One plausible explanation of this lagged and possibly long overdue response to slow growing economic activity is that the New York City financial collapse and the near disasters in several other cities finally drove home the reality that the public sector in many Northern Tier States could no longer sustain itself. Reduction, cutbacks, and deferrals became the centerpieces 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 numbers of public employees and thereby exerted an upward pressure on expenditures; and (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 influence to explain expenditure growth and variations.[10] Those difficulties notwithstanding, we proxy the growth in service demand here with three variables: Population growth (Table V-10), increase in AFDC recipients (Table V-13) and increase in primary and secondary school enrollments (Table V-14). To the extent these factors increased over the four periods studied, an increase in total State and local government employment levels might have been expected, and to the extent they increased faster in one region than the other, a faster growth in public expenditures and/or employment might have been expected.

When the States are aggregated by region, it may be seen that the number of AFDC recipients increased at a greater rate in the North

[10] R. G. Ehrenberg, "The Demand for State and Local Government Employees," *American Economic Review* 63, No. 3 (June 1973): 366-79; T.E. Borcherding and R. T. Deacon, "The Demand for Services of Non-Federal Governments," *American Economic Review* 62, No. 5 (December 1972): 891-901; and Roy Bahl, Richard Gustely and Michael Wasylenko, "The Determinants of Local Government Police Expenditures: A Public Employment Approach," *National Tax Journal*, Vol. XXXI (1978).

TABLE V-13.—RECIPIENTS OF AID TO FAMILIES WITH DEPENDENT CHILDREN: BY REGION FOR SELECTED TIME PERIODS

State and region	Number (in thousands)					Percent increase			
	1962	1967	1972	1975	1977	1962–67	1967–72	1972–75	1975–77
NORTHERN TIER									
Total	1,601	2,280	5,038	5,403	5,173				
Weighted						42.4	121.0	7.3	−4.3
Unweighted						44.1	152.3	12.8	−5.7
East North-Central:									
Total	622	792	2,139	2,417	2,234				
Weighted						27.3	170.1	13.0	−7.6
Unweighted						31.6	176.0	14.7	−5.9
Illinois	265	275	754	803	734	3.9	174.3	6.5	−8.7
Indiana	47	51	171	176	157	9.6	232.1	3.3	−10.8
Michigan	121	183	591	676	623	51.1	222.7	14.4	−7.9
Ohio	147	222	482	578	524	51.5	171.1	19.9	−9.3
Wisconsin	43	61	142	184	197	42.2	133.6	29.6	7.1
Middle Atlantic:									
Total	815	1.222	2,334	2,320	2,282				
Weighted						49.9	100.0	−.6	−1.7
Unweighted						53.3	121.8	2.0	−.3
New Jersey	83	145	408	452	464	75.5	181.4	10.8	2.7
New York	399	786	1,284	1,230	1,173	96.9	63.3	−4.2	−4.7
Pennsylvania	333	291	642	638	645	−12.7	120.6	−.7	1.1
New England:									
Total	164	265	565	667	657				
Weighted						61.8	112.9	18.0	−1.5
Unweighted						49.8	147.8	16.6	−8.3
Connecticut	43	62	114	135	136	44.9	82.2	18.7	−.8
Maine	22	22	68	68	60	.1	209.1	.7	−12.2
Massachusetts	70	138	293	359	368	96.9	112.3	22.5	2.5
New Hampshire	4	6	22	27	23	41.5	282.8	22.5	−16.9
Rhode Island	20	29	50	54	52	43.8	70.9	7.8	−4.3
Vermont	5	8	19	24	19	70.8	129.3	27.7	−2.0
SOUTHERN TIER									
Total	1,159	1,418	2,974	2,944	2,657				
Weighted						22.3	109.8	−1.0	−9.7
Unweighted						33.4	115.6	4.7	−8.2
South Atlantic:									
Total	564	667	1,422	1,391	1,282				
Weighted						18.3	113.3	−2.2	−7.9
Unweighted						37.2	129.1	2.9	−6.2
Delaware	7	17	32	32	32	126.0	91.5	.3	−.6
Maryland	58	108	216	218	209	86.9	99.8	1.1	−4.3
North Carolina	115	107	161	192	198	−7.1	50.7	19.0	3.0
Virginia	44	58	165	180	166	32.4	184.0	9.4	−7.7
South Carolina	34	28	108	139	142	−18.0	286.7	28.9	2.6
Georgia	64	105	332	310	226	63.8	216.5	−6.9	−27.1
Florida	103	148	333	246	246	43.7	125.1	−26.2	.1
West Virginia	139	96	76	74	63	−30.5	−21.2	−2.2	−15.2
East South-Central:									
Total	332	377	673	763	680				
Weighted						13.5	78.5	1.3	−10.9
Unweighted						14.4	81.4	13.8	−10.1
Alabama	90	75	162	167	171	−16.4	114.3	3.0	2.6
Kentucky	81	106	150	198	173	31.4	41.7	31.8	−12.6
Mississippi	79	99	172	186	168	24.9	73.0	8.5	−9.7
Tennessee	82	97	190	212	168	17.8	96.5	11.8	−20.8
West South-Central:									
Total	263	374	878	791	696				
Weighted						42.4	134.9	−10.0	−12.0
Unweighted						45.0	122.4	−.9	−10.5
Arkansas	25	39	80	109	91	54.8	106.2	36.1	−16.6
Louisiana	95	124	354	233	211	31.2	104.8	−8.4	−9.5
Oklahoma	71	90	101	88	88	27.4	12.4	−12.7	−.8
Texas	73	121	443	361	307	66.7	266.2	−18.5	−15.0

Source: U.S. Bureau of the Census, "Statistical Abstract of the United States: 1963, 1968, 1973, 1977, 1978" (Washington, D.C.: U.S. Government Printing Office, 1963, 1968, 1973, 1977, 1978).

TABLE V–14.—PRIMARY AND SECONDARY SCHOOL ENROLLMENT: BY REGION FOR SELECTED TIME PERIODS

State and region	Number (in thousands)					Percent increase			
	1962	1967	1972	1975	1977	1962–67	1967–72	1972–75	1975–77
NORTHERN TIER									
Total	15,734	17,992	19,213	18,486	17,873				
Weighted						14.4	6.8	−3.8	−3.3
Unweighted						15.2	9.1	−2.4	−3.1
East North-Central:									
Total	7,560	8,719	9,262	8,825	8,506				
Weighted						15.3	6.2	−4.7	−3.6
Unweighted						15.9	6.4	−4.2	−3.8
Illinois (1)	1,890	2,215	2,379	2,270	2,205	17.2	7.4	−4.6	−2.9
Indiana (2)	1,029	1,182	1,231	1,226	1,146	14.9	4.1	−.4	−6.5
Michigan (3)	1,792	2,042	2,213	2,073	2,006	14.0	8.4	−6.3	−2.2
Ohio (4)	2,082	2,359	2,439	2,292	2,217	13.3	3.4	−6.0	−3.3
Wisconsin (5)	767	921	1,000	964	932	20.1	8.6	−3.6	−3.3
Middle Atlantic:									
Total	6,162	6,955	7,389	7,105	6,898				
Weighted						12.9	6.2	−3.9	−2.9
Unweighted						13.7	6.6	−3.8	−3.1
New Jersey (6)	1,159	1,378	1,498	1,458	1,406	18.9	8.7	−2.7	−3.6
New York (7)	2,943	3,321	3,520	3,401	3,330	12.8	6.0	−3.4	−2.1
Pennsylvania (8)	2,060	2,256	2,371	2,246	2,162	9.5	5.1	−5.3	−3.7
New England:									
Total	2,012	2,318	2,562	2,556	2,469				
Weighted						15.2	10.5	−.2	−3.4
Unweighted						15.3	12.4	−.1	−2.6
Connecticut (9)	519	614	667	653	626	18.3	8.6	−2.1	−4.1
Maine (10)	212	229	247	251	245	8.0	7.9	1.6	−2.4
Massachusetts (11)	944	1,080	1,191	1,198	1,152	14.4	10.3	−.6	−3.8
New Hampshire (12)	116	138	162	174	173	19.0	17.4	7.4	−.6
Rhode Island (13)	143	167	190	176	170	16.8	13.8	−7.4	−3.4
Vermont (14)	78	90	105	104	103	15.4	16.7	−1.0	−1.0
SOUTHERN TIER									
Total	12,846	14,103	14,632	14,521	14,346				
Weighted						9.8	3.8	−.8	−1.9
Unweighted						9.4	3.3	−1.7	−2.1
South Atlantic:									
Total	5,937	6,609	6,931	6,971	6,832				
Weighted						11.3	4.9	.6	−2.0
Unweighted						12.4	5.3	−.6	−2.4
Delaware (15)	91	117	135	127	120	28.6	15.4	−5.9	−5.5
Maryland (16)	668	826	922	881	848	23.7	11.6	−4.5	−3.7
North Carolina (17)	1,140	1,193	1,176	1,185	1,174	4.6	−1.4	.8	−.9
Virginia (18)	906	1,023	1,074	1,103	1,085	12.9	5.0	2.7	−1.6
South Carolina (19)	611	647	648	629	612	5.9	.2	−2.9	−2.7
Georgia (20)	991	1,087	1,093	1,091	1,079	9.7	.6	−.2	−1.1
Florida (21)	1,094	1,300	1,479	1,551	1,515	18.8	13.8	4.9	−2.3
West Virginia (22)	436	416	404	404	399	−4.6	−2.9	0	−1.2
East South-Central:									
Total	2,859	2,975	2,952	2,840	2,863				
Weighted						4.1	−.8	−3.8	−.8
Unweighted						4.1	−1.2	−3.8	−2.5
Alabama (23)	812	830	806	759	742	2.2	−2.9	−5.8	−2.2
Kentucky (24)	647	688	720	692	786	6.3	4.7	−3.9	−.9
Mississippi (25)	562	582	529	512	504	3.6	−9.1	−3.2	−1.6
Tennessee (26)	838	875	897	877	831	4.4	2.5	−2.2	−5.2
West South-Central:									
Total	4,050	4,519	4,749	4,710	4,651				
Weighted						11.6	5.1	−.8	−1.3
Unweighted						8.6	3.9	−1.7	−1.2
Arkansas (27)	436	452	461	456	454	3.7	2.0	−1.1	−.4
Louisiana (28)	760	840	851	847	827	10.5	1.3	−.5	−2.4
Oklahoma (29)	563	593	626	594	589	5.3	5.6	−5.1	−.8
Texas (30)	2,291	2,634	2,811	2,813	2,781	15.0	6.7	.1	−1.1

Source: U.S. Bureau of the Census.

than in the South in the first three periods, while the reverse was true for percent increases in total population (see Table V–15). During the 1975–77 recovery, the number of AFDC recipients declined in both regions, but more rapidly in the Southern Tier. By 1977, AFDC recipients as a proportion of the population in the Northern region were 5.7 percent, 50 percent above the proportion in the South. Population grew more rapidly in the Southern Tier, suggesting a greater increase in overall service demands during the recovery, but the number of school-aged children declined at a greater rate in the Northern region. To the extent there is some validity to a demand explanation for public expenditure increases, these trends would predict a more rapid increase in fiscal activity in the Northern Tier in the earlier period and in the Southern Tier in the latter period. This pattern is roughly borne out by the data.

TABLE V–15.—INDICATORS OF GROWTH IN SERVICING REQUIREMENTS

	1962–67		1967–72		1972–75		1975–77	
	Northern tier	Southern tier	Northern tier	Southern tier	Northern tier	Southern tier	Northern tier	Southern tier
Weighted percentage changes:								
AFDC	42.4	22.3	121.0	109.8	7.3	−1.0	−4.3	−9.7
Population	5.6	5.9	3.4	7.4	−.1	4.7	.02	2.6
Enrollment	14.4	9.8	6.8	3.8	−3.8	−.8	−3.3	−1.9
Public employment	26.1	31.4	17.9	24.4	6.4	14.8	.9	7.3
Per capita expenditures	44.0	49.6	82.3	62.9	33.8	39.5	16.0	17.8
Unweighted percentage changes:								
AFDC	44.1	33.4	152.3	115.6	12.8	4.7	−5.7	−8.2
Population	6.5	5.4	4.8	6.2	.6	3.8	.7	2.2
Enrollment	15.2	9.4	9.1	3.3	−2.4	−1.7	−3.1	−2.1
Public employment	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: See tables 10, 11, 13, 14, and 16.

Public employment did increase rapidly in both regions between 1962 and 1972 in response to relatively high population and school enrollment growth and a growing concentration of the poor (Table V–16). The even greater increase in per capita spending in the 1962–72 period can be partly attributed to the increase in transfer payments necessitated by the growth in AFDC recipients. The 1972–75 period shows a different pattern. The growth in all three service requirement indicators slowed and there was a slower growth in public employment and public expenditures. But while this adjustment to changed economic and demographic circumstances was taking place in terms of the aggregate performance of States in both regions, it was not necessarily taking place in every State or to the same extent in the two regions. Indeed, public employment increased at a greater rate in the South in all four periods, with the growth rate widening from around 20 percent faster between 1962 and 1972 to 50 percent faster since 1972. The differential growth in expenditures has been much less pronounced, due to the greater growth in transfer payments, debt service, and pension expenditures in the Northern States. Unfortunately, these aggregate data do not let us conclude that the adjustment was somehow "better" in one region than in the other.

TABLE V-16.—PERCENT INCREASE IN STATE AND LOCAL GOVERNMENT EMPLOYMENT AND EMPLOYEE WAGES: BY REGION FOR SELECTED TIME PERIODS

State and region	Total employment				Employment per 10,000 population				Payroll per employee			
	1962-67	1967-72	1972-75	1975-77	1962-67	1967-72	1972-75	1975-77	1962-67	1967-72	1972-75	1975-77
NORTHERN TIER												
Weighted	26.1	17.9	6.4	0.9	19.4	14.1	6.6	0.8	27.9	41.3	22.6	11.4
Unweighted	25.0	20.3	8.8	3.0	17.6	14.9	8.1	2.2	28.8	38.3	21.8	12.4
East North-Central:												
Weighted	25.3	17.6	7.5	2.3	17.4	13.6	7.1	1.9	26.0	41.4	22.9	12.5
Unweighted	25.0	17.8	7.7	2.6	17.0	13.5	7.1	2.1	24.4	39.2	22.4	12.9
Illinois	28.3	20.4	7.2	−.6	20.3	17.5	7.6	−1.3	19.4	44.5	26.9	10.4
Indiana	36.7	10.0	8.4	2.0	27.9	5.3	7.7	1.7	25.1	27.5	20.6	16.9
Michigan	26.6	16.2	8.1	4.5	16.2	11.1	7.1	4.2	27.4	50.1	20.2	12.6
Ohio	21.9	16.5	6.2	3.1	16.5	13.1	6.4	3.2	27.3	37.9	22.5	13.9
Wisconsin	11.7	26.0	8.8	3.9	4.2	20.3	6.9	2.5	38.1	36.7	21.7	10.6
Middle Atlantic:												
Weighted	28.5	17.2	4.8	−1.8	23.8	14.0	5.7	−1.2	28.8	42.2	23.0	10.3
Unweighted	30.0	17.9	7.3	.2	24.1	14.1	7.9	.6	28.8	40.1	24.0	10.8
New Jersey	33.0	21.7	14.9	6.0	22.6	15.0	14.9	6.1	23.6	38.9	23.2	12.3
New York	26.3	17.1	1.3	−5.2	23.0	14.4	2.9	−4.4	28.1	45.6	21.8	10.1
Pennsylvania	30.6	14.8	5.6	−.1	26.7	12.9	6.1	.2	34.6	35.9	27.1	10.1
New England:												
Weighted	20.8	21.3	8.6	4.6	12.1	16.0	7.8	4.1	30.9	37.9	20.3	12.4
Unweighted	23.0	23.7	10.3	4.7	14.7	16.4	9.0	3.2	30.1	36.7	20.1	12.8
Connecticut	29.0	19.6	8.2	2.7	16.0	13.9	7.8	2.3	29.4	39.0	14.3	9.4
Maine	15.6	27.2	6.3	4.7	14.0	24.1	3.3	2.2	29.9	33.8	19.1	16.8
Massachusetts	16.8	20.3	7.6	5.3	8.5	16.5	7.1	5.7	32.1	38.7	23.2	13.2
New Hampshire	38.0	21.1	18.1	7.4	24.7	8.7	12.7	2.8	27.6	34.9	22.0	13.7
Rhode Island	19.0	21.9	8.5	4.7	14.1	14.1	12.6	4.7	28.1	38.2	24.0	12.6
Vermont	19.5	32.0	13.4	3.5	11.1	21.1	10.5	1.4	33.2	35.2	18.3	10.9
SOUTHERN TIER												
Weighted	31.4	24.4	14.8	7.3	24.1	15.8	9.7	4.6	27.5	35.3	26.6	13.5
Unweighted	30.9	24.3	13.1	6.7	24.2	17.1	8.9	4.3	27.2	34.3	26.9	14.8
South Atlantic:												
Weighted	35.0	28.1	15.7	8.0	24.3	17.5	9.9	5.8	28.8	38.1	23.6	13.0
Unweighted	33.9	28.4	13.6	7.1	24.1	19.3	9.2	5.1	28.5	36.5	24.2	15.2
Delaware	34.0	39.9	3.4	.3	18.9	29.1	1.6	−.2	30.1	37.8	24.2	22.3
Maryland	40.0	26.6	11.8	6.1	20.9	17.0	10.5	5.4	32.1	38.4	26.8	10.7
North Carolina	27.9	24.7	12.6	15.5	22.3	17.5	8.9	13.7	25.5	34.9	17.4	14.2
Virginia	39.2	25.4	19.3	8.2	29.3	18.1	14.5	5.0	29.0	36.1	25.0	9.7
South Carolina	33.6	31.1	16.7	9.2	29.2	23.9	11.1	6.9	24.6	37.6	25.4	15.2
Georgia	35.0	32.2	15.7	6.3	25.8	22.5	11.5	3.9	29.9	33.4	28.8	12.3
Florida	39.0	31.3	19.8	6.0	20.1	10.9	7.2	3.6	29.3	46.9	20.8	13.0
West Virginia	22.6	15.9	9.5	5.5	26.3	15.1	8.2	2.3	27.1	27.1	25.3	24.4
East South-Central:												
Weighted	26.8	21.2	11.1	6.5	23.7	17.3	7.9	4.1	27.3	33.9	28.6	14.4
Unweighted	26.4	21.3	10.9	6.4	23.9	17.5	7.7	4.1	27.0	34.1	29.2	14.4
Alabama	23.9	21.2	12.0	9.0	19.8	19.3	9.0	6.7	33.7	32.3	32.8	15.3
Kentucky	25.4	18.9	15.7	2.2	22.5	14.3	12.7	.3	20.8	36.4	23.6	15.0
Mississippi	25.1	23.1	5.3	7.5	27.8	20.4	2.3	5.5	25.3	34.1	35.5	13.3
Tennessee	31.2	21.8	10.5	6.9	25.5	16.1	7.1	3.9	28.2	33.5	24.9	14.0
West South-Central:												
Weighted	29.3	20.8	15.8	6.7	24.0	12.3	10.3	3.1	25.3	30.8	30.6	13.7
Unweighted	29.3	19.3	14.5	6.0	24.9	12.4	9.7	3.1	24.8	30.1	29.9	14.5
Arkansas	33.6	21.4	16.3	6.7	31.8	15.5	9.8	5.3	27.0	27.7	34.2	13.8
Louisiana	25.4	16.3	12.6	1.5	18.0	11.6	10.0	−1.1	24.8	32.1	24.2	17.4
Oklahoma	27.7	16.1	11.3	7.4	25.0	9.6	7.6	4.2	21.4	30.1	28.9	14.4
Texas	30.6	23.7	17.8	8.2	24.7	12.8	11.1	3.9	26.2	30.7	32.4	12.4

Source: U.S. Bureau of the Census, "State Distribution of Public Employment, 1962," G-GE62-No. 1, April 1963;"——Public Employment in 1967, 1972, 1975, 1977," GE67, 72, 75, 77 (Washington, D.C.: U.S. Government Printing Office, 1968, 1973, 1976, 1978); "Current Population Reports," series P-25, No. 727, July 1978.

The possibility that a differential growth in the wage rate of State and local government employees accounts for a part of the regional differential in expenditure growth suggests that the supply side should be considered. As may be seen in Table V-16, the percentage increase in payroll per employee was slightly 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.[11] The pattern continued for the 1975–77 period. Therefore, since 1972, State and local governments in the South have been increasing per capita expenditures and employment as well as employee wage rates at a greater rate than have Northern States.

REVENUE GROWTH

The comparisons above might be summarized as showing that, relative to personal income growth, expenditures in the Northern States expanded at about the same rate as those in the Southern States, despite very great differences in the growth of their respective economic and demographic bases. As a consequence, revenue effort in the Northern Tier States must have increased more rapidly and/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 an ACIR classification of States with reference to both the level and direction of tax effort.[12] Of the States classified as having high and rising levels of tax effort, nine are in the Northern Tier and three are in the South (see Table V–17).

A comparison of the growth in own-source revenues with the growth in personal income, employment, and population shows a greater revenue-income elasticity [13] in the North in every period (see Table V–18). This means that, on average, the tax on each increment to income was greater in the North, or that tax reduction of disposable income was largest in the North.

The presentation in Table V–19 disaggregates increases in State and local government revenue by source of increase. The results are helpful in understanding the mechanics of the fiscal response over the period in question. Three patterns of change stand out. First, there was a growing use of sales and income taxes in both regions. Second, there has been much heavier reliance on property taxes in the Northern States. Third, the pattern of reliance on Federal grant financing has differed between the two regions. The Southern States have been more reliant on grants throughout this period, but their dependence on grants has not increased substantially. The Northern States, on the other hand, financed only 19 percent of their 1962–67 expenditure increases with grants as compared to 29 percent of their 1975–77 period increase. The direct Federal-local government aid included in the stimulus package accounts for much of this increase, hence the increased reliance in the most recent period may be a temporary change rather than a component of long-term trend. As may be seen in Table V–19, the pattern described above holds true for most States in the two regions.

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[11] It is important to reemphasize that the rates of increase of average wages do not measure total compensation, but only direct wage and salary payments. To the extent there are regional differences in the pension and fringe benefit component of compensation *increases*, these comparisons are distorted. One view would be that this distortion is in the direction of underestimating growth rates in compensation for employees of Northern States.

[12] Advisory Commission on Intergovernmental Relations, *Measuring the Fiscal Blood Pressure of the States* (Washington, D.C.: Government Printing Office, 1977).

[13] 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. For a review of applications of the more rigorous approach, see Roy Bahl and Larry Schroeder, *Forecasting Local Government Budgets*, Occasional Paper No. 38, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, December 1979).

TABLE V-17.—LEVELS OF REVENUE EFFORT: SELECTED NORTHERN AND SOUTHERN TIER STATES, 1977

State and Region	Revenues from own sources per $1,000 of personal income	Per capita revenue from own sources
Northern tier:		
Weighted	$150.4	$1,108.9
Unweighted	145.0	1,024.5
East North-Central:		
Weighted	134.3	986.9
Unweighted	136.2	988.7
Illinois	132.2	1,026.6
Indiana	122.6	848.4
Michigan	148.7	1,133.1
Ohio	119.1	843.8
Wisconsin	158.4	1,091.6
Middle Atlantic:		
Weighted	168.9	1,259.7
Unweighted	158.6	1,193.6
New Jersey	140.3	1,121.5
New York	204.3	1,540.1
Pennsylvania	131.1	919.2
New England:		
Weighted	147.8	1,061.9
Unweighted	145.5	969.7
Connecticut	130.3	1,050.7
Maine	140.7	806.5
Massachusetts	161.5	1,171.8
New Hampshire	122.4	799.6
Rhode Island	145.1	982.5
Vermont	172.8	1,006.8
Southern tier:		
Weighted	132.0	833.0
Unweighted	134.0	833.7
South Atlantic:		
Weighted	133.1	863.5
Unweighted	134.9	887.4
Delaware	146.3	1,125.4
Maryland	151.0	1,143.1
North Carolina	126.0	747.6
Virginia	125.2	859.4
South Carolina	134.1	754.6
Georgia	138.5	832.7
Florida	129.0	862.1
West Virginia	129.3	774.1
East South-Central:		
Weighted	132.5	748.9
Unweighted	134.3	749.0
Alabama	130.4	733.0
Kentucky	130.7	777.0
Mississippi	147.6	742.4
Tennessee	128.5	743.6
West South-Central:		
Weighted	130.0	839.5
Unweighted	131.9	811.0
Arkansas	119.2	660.4
Louisiana	151.8	897.8
Oklahoma	131.2	832.8
Texas	125.4	853.1

Source: U.S. Bureau of the Census, "Government Finances in 1976-77," series GF77, No. 5 (Washington, D.C.: U.S. Government Printing Office, 1977); and, "Current Population Report," P-25, No. 727 (July 1978); and, Department of Commerce, "Survey of Current Business," August 1978.

TABLE V-18.—OVERALL RESPONSIVENESS OF REVENUES TO ECONOMIC ACTIVITY, 1962–77

Percentage changes	Northern tier				Southern tier			
	1962–67	1967–72	1972–75	1975–77	1962–67	1967–72	1972–75	1975–77
Weighted:								
Own-source revenue	48.0	80.9	29.6	20.8	54.7	77.8	41.1	23.8
Personal income	40.0	42.3	28.2	19.3	49.4	60.0	38.6	23.8
Own-source revenue—income elasticity	1.20	1.91	1.05	1.08	1.11	1.30	1.06	1.00
Total employment	15.2	5.8	.8	4.3	24.7	20.2	8.4	7.6
Population	5.6	3.4	—.1	.02	5.9	7.4	4.7	2.6
Unweighted:								
Own-source revenue	46.6	84.8	28.9	21.4	56.8	75.5	39.7	22.8
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	.99	1.02	1.18	1.31	1.06	.97
Total employment	16.7	7.6	1.9	6.4	24.0	18.7	7.2	7.5
Population	6.5	4.8	.6	.7	5.4	6.2	3.8	2.2

Sources: Computed from tables 9 and 10, U.S. Bureau of the Census, 'Governmental Finances in 1962," series G-GF62–No. 2, October 1963; ———, "Governmental Finances 1966–67, 1971–72, 1974–75, 1976–77," GF67, 72, 75, 77; Department of Commerce, "Survey of Current Business," August 1976, August 1978

TABLE V-19.—INCREASES IN GENERAL REVENUES OF STATE AND LOCAL GOVERNMENTS: BY REGION FOR SELECTED YEARS

State and region	1962–67			1967–72		
	Percent of increase due to:			Percent of increase due to:		
	Sales and income taxes	Property taxes	Federal aid	Sales and income taxes	Property taxes	Federal aid
NORTHERN TIER						
Weighted	24.9	22.2	18.6	26.3	23.7	20.2
Unweighted	21.0	22.6	19.5	22.6	25.5	19.5
East North-Central:						
Weighted	23.3	22.1	18.2	26.6	22.6	19.3
Unweighted	25.0	21.8	17.6	25.5	23.9	17.8
Illinois	21.2	22.5	19.3	27.8	21.6	25.0
Indiana	32.0	31.4	14.9	17.6	25.6	15.2
Michigan	19.1	20.7	20.8	28.7	20.2	18.5
Ohio	13.4	27.5	18.8	24.8	20.2	15.4
Wisconsin	39.4	6.8	14.1	28.8	31.9	14.7
Middle Atlantic:						
Weighted	27.7	21.7	18.3	27.7	22.3	21.1
Unweighted	24.4	22.8	18.6	24.9	24.0	20.4
New Jersey	20.3	27.6	15.9	13.5	36.2	20.1
New York	31.6	20.9	17.6	30.8	21.8	22.6
Pennsylvania	21.3	19.8	22.4	30.3	14.1	18.4
New England:						
Weighted	19.1	24.2	20.9	21.1	31.7	20.1
Unweighted	15.9	23.2	21.4	19.1	27.6	20.5
Connecticut	10.8	32.3	19.4	21.2	34.7	14.8
Maine	23.7	10.9	28.1	19.5	21.3	26.2
Massachusetts	25.0	21.7	20.2	22.1	34.0	21.8
New Hampshire	1.3	40.2	14.8	1.6	32.2	17.0
Rhode Island	15.5	19.9	29.9	31.5	21.2	21.6
Vermont	19.0	13.9	16.3	18.5	22.0	21.5

See footnote at end of table.

TABLE V-19.—INCREASES IN GENERAL REVENUES OF STATE AND LOCAL GOVERNMENTS: BY REGION FOR SELECTED YEARS—Continued

State and region	1972–75 Percent of increase due to			1975–77 Percent of increase due to		
	Sales and income taxes	Property taxes	Federal aid	Sales and income taxes	Property taxes	Federal aid
NORTHERN TIER						
Weighted	37.6	19.1	26.1	35.8	18.6	26.9
Unweighted	33.0	21.3	31.0	31.5	18.2	29.8
East North-Central:						
Weighted	38.4	15.1	25.7	38.9	16.5	26.9
Unweighted	40.4	13.3	26.0	38.7	15.5	28.6
Illinois	42.4	18.4	12.9	33.0	18.9	26.9
Indiana	51.2	5.4	20.4	42.9	9.2	38.4
Michigan	22.4	26.7	33.8	51.2	12.6	25.2
Ohio	40.0	9.4	29.9	24.7	25.6	25.8
Wisconsin	46.1	6.8	33.1	41.9	11.2	26.4
Middle Atlantic:						
Weighted	38.6	19.0	25.3	36.0	20.3	26.1
Unweighted	34.8	20.4	26.9	36.9	19.5	27.0
New Jersey	20.0	35.3	23.7	42.5	18.7	25.3
New York	42.7	18.6	22.5	34.6	21.7	24.2
Pennsylvania	41.8	7.4	34.2	33.7	17.9	31.4
New England:						
Weighted	30.5	32.7	30.6	27.2	19.1	29.4
Unweighted	25.8	28.4	37.2	22.9	19.7	32.1
Connecticut	31.5	27.5	42.9	31.3	22.9	14.4
Maine	29.6	14.5	40.4	28.9	5.0	47.4
Massachusetts	33.6	37.9	22.9	28.4	18.0	32.8
New Hampshire	14.5	34.3	39.3	2.7	38.2	22.3
Rhode Island	27.1	24.4	34.9	22.0	18.2	37.8
Vermont	18.4	32.1	42.9	24.0	15.9	38.2

State and region	1962–67 Percent of increase due to—			1967–72 Percent of increase due to—		
	Sales and income taxes	Property taxes	Federal aid	Sales and income taxes	Property taxes	Federal aid
SOUTHERN TIER						
Weighted	18.9	16.4	25.5	25.1	12.8	21.7
Unweighted	19.3	14.2	26.6	25.4	11.0	23.5
South Atlantic:						
Weighted	21.9	18.6	21.8	26.3	14.0	20.3
Unweighted	21.5	15.9	23.1	26.1	12.9	22.2
Delaware	15.4	9.2	17.9	18.8	8.7	23.6
Maryland	25.1	32.0	13.7	36.5	12.2	17.5
North Carolina	25.3	13.6	23.2	24.0	14.0	22.6
Virginia	34.1	16.4	21.8	26.2	15.3	19.2
South Carolina	24.3	6.8	21.8	27.8	14.0	24.0
Georgia	20.2	16.2	23.1	21.2	16.7	23.7
Florida	12.1	23.3	21.1	23.5	14.6	15.5
West Virginia	15.1	9.9	42.0	30.8	7.4	31.7
East South-Central:						
Weighted	21.1	9.5	30.8	26.4	8.1	25.7
Unweighted	21.0	9.5	31.1	27.1	7.9	26.0
Alabama	25.5	6.6	25.5	20.8	3.1	32.2
Kentucky	19.8	8.6	36.9	35.4	7.6	20.2
Mississippi	18.4	10.4	33.1	29.2	7.8	30.1
Tennessee	20.1	12.3	28.8	22.9	13.0	21.5
West South-Central:						
Weighted	12.1	17.8	27.8	22.1	13.4	21.9
Unweighted	13.5	15.3	29.0	22.3	10.5	23.4
Arkansas	17.3	9.7	33.4	20.9	10.2	27.8
Louisiana	19.8	7.8	24.0	26.9	8.5	20.2
Oklahoma	8.0	20.2	31.5	20.5	6.3	24.3
Texas	8.8	23.3	27.1	21.1	16.8	21.2

See footnote at end of table.

TABLE V-19.—INCREASES IN GENERAL REVENUES OF STATE AND LOCAL GOVERNMENTS: BY REGION FOR SELECTED YEARS—Continued

State and region	1972=75 Percent of Increase due to: Sales and Income Taxes	Property Taxes	Federal Aid	1975=77 Percent of Increase due to: Sales and Income Taxes	Property Taxes	Federal Aid
SOUTHERN TIER						
Weighted	28.1	12.3	28.0	25.3	15.6	26.8
Unweighted	31.1	10.5	28.5	28.7	12.6	29.2
South Atlantic:						
Weighted	30.5	12.7	29.3	26.0	17.6	27.6
Unweighted	32.7	11.7	29.0	28.8	14.5	29.2
Delaware	36.8	10.3	20.9	27.0	2.5	43.5
Maryland	36.6	11.6	28.3	23.0	18.0	26.2
North Carolina	35.9	10.1	39.8	35.0	12.0	31.2
Virginia	28.9	14.5	27.2	27.0	19.7	27.7
South Carolina	32.2	9.3	29.1	30.2	14.3	32.1
Georgia	32.0	17.0	30.4	34.5	16.4	24.1
Florida	21.1	13.5	24.1	12.4	24.7	26.1
West Virginia	38.2	7.5	32.0	41.5	8.2	22.8
East South-Central:						
Weighted	31.0	8.3	28.2	33.5	9.5	30.8
Unweighted	31.2	8.3	28.5	33.3	9.6	30.5
Alabama	33.1	5.1	25.0	27.8	3.6	34.4
Kentucky	27.7	7.7	28.3	39.5	10.8	31.2
Mississippi	32.2	9.3	31.8	29.9	10.6	26.9
Tennessee	32.0	11.0	28.8	36.2	13.4	29.4
West South-Central:						
Weighted	21.8	14.4	25.5	19.9	15.9	23.4
Unweighted	27.9	10.2	27.7	23.7	12.1	27.7
Arkansas	38.6	9.2	32.1	29.1	11.6	29.5
Louisiana	26.2	3.6	27.4	24.1	6.7	38.2
Oklahoma	30.6	8.6	27.7	25.3	8.9	25.9
Texas	16.3	19.6	23.5	16.2	21.0	17.3

Sources: U.S. Bureau of Census, "Government Finances, in 1962," Series G-GF62, No. 2 (Washington, D.C.: U.S. Government Printing Office, October 1963); ———, Government Finances, 1966-1967, 1971-1972, 1974-1975, 1976-1977, GF67, 72, 75, 77 (Washington, D.C.: U.S. Government Printing Office, 1968, 1973, 1976, 1978); and "———, Current Population Reports," series P-25, No. 727 (Washington, D.C.: U.S. Government Printing Office, July 1978).

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 rate and base changes in the income and sales taxes occurred with greater frequency in the North, especially among the harder pressed States.[14]

Implications for Public Policy

For purposes of public policy formulation, it is important to try at least to separate the general fiscal problems of State and local governments from those which have been exacerbated by regional shifts. It is particularly important to separate the fiscal problems and public service deficiencies which are primarily attributable to low income—the Southern problem—from those which are due in the main to declining levels of economic activity.

[14] Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism*, 1976-77 Edition, Vol. II (Washington, D.C.: Government Printing Office), Tables 34-37.

The basic fiscal dilemma faced by several of the declining States in the Northeast is that public sector has become overdeveloped relative to their financial capacity. As a result, tax burdens are high, there is little additional public money to be devoted to what are thought to be serious city fiscal problems, and fixed debt and pension commitments command an ever increasing share of budgets. Because regional shifts in economic activity appear to be continuing—and may accelerate because of recession and national energy policy—the prospects that this situation will ease are not good. To be sure, this fiscal dilemma 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 is true enough for the Northern Tier to be a resaonably accurate generalization. The Southern fiscal problem is different, almost opposite. The public sector tends to be underdeveloped, facing increasing pressures to spend more but remaining hesitant to increase taxes to Northern levels.

ALTERNATIVE STRATEGIES

The strategies for directly dealing with these fiscal problems would seem to be of four types: Reversal of the Northern economic decline, both in the central cities and the region; increased Federal assistance to the declining region during the transition period; a 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 direct action to correct the fiscal problems of governments in the declining region. The argument would be that market forces are already underway which are correcting regional disparities in real income, employment, and population; and that the regional disparities in public service levels also should narrow. Eventually, as growth in the resource base continues to slow, growth in the public sector in the Northeast will also slow. The problem with this line of reasoning is that shrinkage in the public sector in the North 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.[15]

Adjustment of State-local government finances to deal with regional shifts would seem to leave 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.

Options for State-local governments.—Increased productivity in the public sector is a favorite policy recommendation of politicians everywhere because it resolves fiscal problems without requiring govern-

[15] That this should be the case is a bit of an irony. States such as New York and Massachusetts financed the increase in their public sectors with relatively progressive taxes and spent the proceeds lavishly (relative to other States) on redistributive services. The need to reduce the relative size of the public sector, however, has led to regressive cuts in the personal income tax in New York State and pressures to reduce the real levels of redistributive services in several states.

ments either to raise taxes or cut services. Better yet, since productivity in the public sector cannot be unambiguously measured there is no way to evaluate the success or failure of a productivity improvement program.[16] From the point of view of the city manager or city council, productivity improvement may seem much less the panacea. 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.[17]

Revenues might be increased through further increase in the effective tax rate. The argument against this strategy is the possible retarding effect on economic development. State and local government revenue effort in the Northeastern and Midwestern regions is already high relative to the South, a difference that would reinforce the argument to lower rather than raise taxes for competitive reasons. While this pattern certainly does not hold for all States in the declining region—Connecticut and Ohio have revenue efforts among the lowest in the United States—it fits many of the large industrial States. Southern States, on the other hand, would seem loathe to raise taxes to Northern levels and possibly sacrifice what they have long believed to be an important comparative advantage. Overall there lies a general mood in the country to resist tax increases for any purpose.

Service level reductions are the most likely route to be followed by the declining Northern Tier State-local governments. While there will be absolute cutbacks in the sense of reductions in the scope of services, expenditures retrenchment will mostly take the form of services not expanding to accommodate increasing needs or to match fully inflationary cost increases. However, this cutback in services does not mean that expenditures will decline. Increasing wages and benefits—even if outpaced by inflation—can drive up expenditures by a significant amount, without raising service levels. The outlook in the South is more likely an increasing of service levels, in the absolute and relative to the Northern Tier.

There is another type of State-local government reform which is highly desirable, though politically difficult. If the tax base in the suburbs could be tapped more fully so as to balance needs for services with capacity to finance, the fiscal situation in central cities could be markedly improved. History has not shown this to be a viable alternative in the Northern industrial States, but it has been accomplished in the South through consolidations and annexations.

Options for the Federal Government.—There are an endless number of proposals for Federal action to deal with regional shifts. Most are politically motivated and involve arguments by interested parties that more Federal money should be targeted to their region. No administration in the past two decades has been able to integrate these conflicting claims into a coherent national regional development policy.[18]

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[16] Yet there have been some impressive attempts to show how one might improve the effectiveness of a given level of outlays. See for example, Harry Hatry, *et. al., Efficiency Measurement for Local Government Services—Some Initial Suggestions* (Washington, D.C.: The Urban Institute, 1979).

[17] A review of the issues surrounding productivity measurement and improvement is presented in Jesse Burkhead and John P. Ross, *Productivity in the Local Government Sector* (Lexington: D.C. Heath and Company, 1974); and Jesse Burkhead and John P. Ross, "Local Government Productivity," in *Public Employment and State and Local Government Finances*, ed. by Roy Bahl, Jesse Burkhead and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger, 1980).

[18] Indeed, the present administration could offer no more in its urban policy statement than a program which would offer special benefits to all regions. See President Jimmy Carter, "New Partnership to Conserve America's Communities," White House, March 27, 1978.

Though the responsibility for formulating such a policy is clearly on the shoulders of the national government, political constraints are so severe that a policy statement is not likely to emerge.

In tracing out the options for Federal action, we might first consider those which directly address the fiscal problems of State and local government in the declining region. A first, obvious Federal approach would be to increase the flow of aid to the States in order to prop up their sagging public sectors. However, it is important to identify the objectives of this increased aid flow. A program of increased Federal aid during a transition period in which the State sought to balance its long-term spending expectation with its likely future economic growth would be a logical program. An alternative approach would be to increase the flow of Federal grants in an attempt to maintain an over-developed public sector in the declining region. While this might be more acceptable politically, it would serve to prolong the period of continuing annual fiscal crisis. The problem in the declining region is that State and local governments must get their expectations for public service levels in line with their capacity to finance those service levels and their willingness to pay higher taxes. Indefinite Federal grant subsidies simply are not a good long-term answer.

There are a number of compensatory Federal policies which 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 a program would be a continuation and expansion of the countercyclical revenue-sharing program and the temporary public sector job-related programs. But perhaps the most important ingredient of a fiscal reform would be an increased level of Federal financing of public welfare.

Such programs offer State-local governments the kind of flexibility needed to cover some of the public service deficits and unemployment-related costs of decline, and fit the criterion of being compensatory. Yet within this program of compensatory grants, there must be stringent conditions. States will ultimately have to develop long-term fiscal plans for their State and local government sectors. These plans will have to show how the State and local government sector will move its expenditure growth requirements into line with its projected increase in financial capacity. Compensatory grants would also have to carry the requirement that aid be more heavily targeted on those who suffer most from the transition period—the poor and the unemployed.

Another approach to shoring up the declining region is to improve its comparative economic advantage through a program of regional development subsidies. An often discussed approach to dealing with the problems of decline is the creation of a Regional Energy and Development Corporation that would finance regional development projects using Federally guaranteed taxable bonds.[19] It is hoped that such an activity would accelerate development of Eastern coal and result in substantial job generation. Other types of regional subsidies have been suggested for the same purpose—to improve the relative competitive position of the declining region. These include a request for a Federal tax program of double accelerated depreciation for new

[19] Felix G. Rohatyn and John C. Sawhill, *Urgently Needed—A Northeast Energy Development Corporation* (New York: CONEG Policy Research Center, 1979).

capital for firms making new investments in regions of economic stagnation; the establishment of Federal tax credits and expended energy entitlements to offset the energy premium which the Northeast region pays; and a change in the emphasis of Federal programs from new construction to reconstruction and rehabilitation.[20]

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 regions 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 regional shifts slowed. A second, and related caveat, is that State-local governments in the declining region tend to be more heavily dependent on local property taxation which may make it difficult to capture fully increases in regional income and employment for 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.

What then should be Federal policy toward the States in the Southern region, growing but still poorer, having lower public service levels but taxing at lower rates, and facing the new pressures of rapid population growth? In a sense, many of the Southern problems will be resolved by continued shifts of economic activity and continued growth. In the energy intensive states, this growth will be supplemented by what could well be an energy revenue bonanza. Moreover, to the extent regional subsidy programs do not temporarily reduce the flow of economic activity out of the declining regions, the South will be an indirect beneficiary. What this leaves is the need for Federal policy to adjust grant distributions to reflect: (a) the very heavy concentration of the poor in the rural South; and (b) proper changes in the share of Federal grants allocated to Southern States. It would seem reasonable to expect that as relative income levels in the growing region continue to climb, Federal grant shares should begin to diminish.

IMPROVED FISCAL BALANCE

The fiscal problems of many Northern Tier States is that their public sectors are overdeveloped. The States' resource bases will no longer support the higher level of public services provided, unless tax rates are continuously increased. While shifts in population and economic activity are ending toward equalizing incomes across the country, the 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 provided while the rest of the Nation catches up. A program of transition grants could ease the pain in this catch-up period.

[20] The Coalition of Northeastern Governors, *An Agenda for Action in the Northeast* (New York: 1976).

LESSONS FOR THE GROWING REGION

It is likely that the rapid fiscal expansion in the State-local sector in the South has yet to come. Investments in public infrastructure and human capital often lag behind the growth in population and income level. It is noteworthy that this growth has been particularly rapid over the past 5 years.

If the Southern Tier of States is about to enter a fiscal growth period similar to that experienced in the Northern Tier in the sixties, some of the painful fiscal lessons of that period might be well learned. Much of the problem facing the Northern Tier States was not of their own making. The very rapid fiscal expansion in the mid and late 1960's and early 1970's was to a large extent the result of union pressures for higher employee compensation—a demand that was abetted by a high rate of inflation and a crowding of high cost-low income citizens into the central cities. Much of this expenditure increase would have been difficult to avoid. Other aspects of the expansion, however, were more discretionary—the making of substantial long-term fixed debt and pension commitments, the addition of substantial numbers to the public employee roles, and the buying into Federal programs to expand the scope of services offered.

The growing States with rapidly developing public sectors have much to learn from this experience. But the lesson is not that public employee unionization should be resisted or that public service levels should be kept at modest levels, but rather that the longer term consequences of fiscal decisions should be continuously and systematically monitored. Moreover, there are conditions in the growing region which may make the growth experience much less painful than in the Northern Tier. A more favorable local government structure and a more elastic tax mix that is less reliant on the property tax may allow bigger, newer cities in the growth region to avoid the central city financial crisis which is so common in the Northern Tier.

VI. The Next Decade in State and Local Government Finance: A Period of Adjustment

The 1980's will be a period of fiscal adjustment for State and local governments. The formerly rich States will be struggling to bring their relative quality of public services down to a level they can afford; the formerly poor States will be struggling to raise services levels in response to the demands of their new populations; and all will be trying to adjust to a higher rate of inflation and a slower growing U.S. economy. The lessons on how to get along with less will be painfully learned by more than a few State and local governments.

How will changes in the U.S. economy affect State and local government finances in the 1980's and what governmental policy responses will be necessary? In considering these important questions, we first consider those national economic and demographic factors that may shape the outlook, then turn to a discussion of the essentials of a national urban policy and of the possible adjustments by State and local governments, and conclude with a guess at what the next few years in State and local government finance will hold.

Factors Shaping the Outlook

That State and local governments everywhere are facing problems of adjustment is a reflection of the changing structure of the U.S. economy. A slowing national income growth and a shift in its regional distribution, a continuing high rate of price inflation, a changing population structure, changes in Federal budget and Federal grant policy and a new voter resistance to big government and regulation all exert important pressures on the financial condition of State and local governments and call for some form of policy responses by State and local governments. In truth, the changes are less recent than some policy analysts may be willing to admit—the slower rate of income and population growth has been recognized for several years now as has the ongoing pattern of regional shifts in population and economic activity. But old fiscal habits die slowly and adjustments take time. The growth in government is just beginning to slow and the realities of long-term retrenchment are only now taking hold in some jurisdictions in the declining regions. The reverse is true in the growing regions where increasing costs and the pressures to upgrade services are beginning to affect State and local government budgets.

NATIONAL ECONOMIC GROWTH

The prognosis for the 1980's is for real GNP to grow more slowly than in the 1960's and 1970's. Between 1970 and 1979, real GNP growth was positive in seven years and averaged 4.6 percent in those years. For the 10 years of positive growth rates in the 1960's, the average was 4.1 percent. Certainly the next two years will not begin to approach this rate. The Administration has projected a real GNP decline in 1980 and a real growth of only 2.8 percent in 1981.[21]

Few will hazard outright projections of GNP five years in the future, but some indirect evidence casts doubt on the likelihood of realizing 4 to 5 percent real growth rates for the early 1980's. The Administration estimates that in order to achieve a 4-percent unemployment rate by 1985 and a 3-percent inflation rate by 1988, annual productivity increases of 2.5 percent and real GNP growth rates in the 4.5 to 5.0 percent range will be required. To the extent these long-term inflation and unemployment targets are not attainable, slower real income growth will result.

The Bureau of Labor Statistics has made baseline projections of a 3.2 to 3.6 annual real growth rate in GNP for the 1980's. These projections require that inflation slow to 5.5 percent in the early 1980's and to 4.4 percent by the end of the decade, and that the unemployment rate gradually fall from a projected 5.3 percent level in 1981 to 4.5 percent by 1990.[22] CBO has simply assumed (calculated) a 3.8 percent growth rate ". . . so that by 1985 the unemployment rate would return to approximately the current level (5.9 percent)." [23] The Joint Economic Committee, assuming productivity increases in the

[21] *Economic Report of the President*, Transmitted to Congress January 1980 (Washington, D.C.: U.S. Government Printing Office, 1980), pp. 90-97.

[22] Norman C. Saunders, "The U.S. Economy to 1990: Two Projections for Growth," in *Employment Projections for the 1980s*, Bureau of Labor Statistics, U.S. Department of Labor, Bulletin 2030 (Washington, D.C. U.S. Government Printing Office, 1979), pp. 12-24.

[23] Congressional Budget Office, *Five Year Budget Projections: Fiscal Years 1981-1985*, A Report to the Senate and House Committees on the Budget: Part II (Washington, D.C.: Government Printing Office, February 1980), pp. 2-5.

1.5 to 2 percent range, sees the long-term rate of real GNP growth to be in the 3 to 3.5 percent range.[24] From almost every vantage the conclusion seems to be the same. For at least a few years, the U.S. economy is going to grow more slowly than it did during the past two decades.

One important reason why the more optimistic scenarios such as the real growth targets set by the Administration may not be reached is that the inflation rate will likely remain high in the 1980's. The underlying causes of inflation have been building for more than a decade and cannot be swiftly corrected—indeed, the President's 1980 *Economic Report* recognizes this in pushing back its timetable for lowering the rate of inflation. Moreover, some major causes of inflation are a result of world events—oil pricing and production decisions and crop failures—and are neither controllable by domestic policy nor predictable. The prospects for easing price increases in the 1980's might also be viewed in terms of the components of inflation. The major contributors in recent years have been energy, housing, food, and medical costs. Neither Federal policy nor international events would cause us to expect a dampening in any of these components of general price increases.

This combination of slower real growth and inflation will put new pressures on State and local government budgets. Forecasts for the State and local government sector are not generally available, though the BLS projection model is an exception. Under their baseline employment expansion assumptions, they expect the sector to decline between 1980 and 1985 in terms of employment (12 percent of total employment to 11.6 percent), purchases of goods and services (12.6 percent of GNP to 11.1 percent) and personal taxes (3.2 to 2.9 percent of GNP).[25] Whether or not the relative declines in State and local government activity will be this steep, it would seem reasonable to assume that taxes will be off their post-1975 annual real growth rate of 4.3 percent. If the past few years are representative and if tax limitation movements do not further slow tax revenue growth, a 3.5 to 4 percent real GNP growth could imply a State and local government tax revenue growth of 2.7 to 3.1 percent per year.

The resulting revenue gap will not likely be made up by increased Federal assistance. To the contrary, if the Federal grant share of GNP remains constant, a 3.5 to 4.0 percent of real GNP growth will bring a 4.6 to 5.3 percent annual increase in Federal grants. Even this projection, which seems on the optimistic side, is for a growth well below the 7.3 percent annual real increase of the 1975–78 period.

The import of all this seems clear: State and local governments will have fewer resources available in the 1980's—the overall rate of revenue increase could fall by as much as one-fourth if the real GNP growth rate stays in the 3.5 to 4 percent range.

Some areas of the country will be hit harder than others by this slow national growth and by the cutbacks in the real amount of Federal aid to State and local governments. The slower growing industrialized States in the Northeast and Midwest could experience very little real growth under this scenario and central cities in those regions will be the hardest pressed. Governments in this region could well face revenue

[24] Joint Economic Committee, *The 1980 Joint Economic Report* (Washington, D.C.: Government Printing Office, February 28, 1980), pp. 30–32.
[25] Saunders, "The U.S. Economy to 1990: Two Projections for Growth."

growth rates lower than the national rate of inflation—a combination of slow real national growth and declining regional shares. Many of the growing States will not escape from the revenue effects of the national slowdown. Those growing States without substantial energy resources will face a more drastic reduction in their *rate* of revenue increase than will many of the Northern States which have already entered a period of fiscal austerity.[26]

The other side of the coin is inflation, and to some extent inflated tax bases work to offset the dampening effects of slow economic growth. But property taxes are not so responsive to inflation and continued inflation and taxpayer resistance will eventually force rate reduction or indexation for more State government tax systems. These factors will probably hold back inflation-induced revenue growth so that it will not offset the losses due to slower growth. The more significant effects of inflation on State and local government budgets are likely to occur on the expenditure side. If the pattern of recent years holds, rapid increases in costs will likely account for most if not all of State and local government expenditure increases. This implies little or no increase in the real level of services offered.

Higher rates of inflation also promise to promote two structural changes in the pattern of State and local government spending. The first is that with soaring materials and supply costs, a more labor-intensive public sector might seem reasonable. The clamor of the past decade for increased productivity via capital-labor substitution may diminish in favor of arguments for more police officers and fewer cars, etc. The other major structural change has to do with the extent to which capital formation in the State and local government sector will slow even further. Rising material costs, rising interest rates, and the ease of deferring capital renovation and maintenance could all contribute to further reducing the rate of investment by governments in renewing their infrastructure.

REGIONAL SHIFTS IN ECONOMIC ACTIVITY

The slowing down of national economic growth will be more than offset in some regions by the in-migration of economic activity. In the older declining regions it will be reinforced. The prospects are for the movement of people and jobs to the newer regions to continue through the end of the century. Estimates of regional population and income growth by the Department of Commerce [27] and regional population and employment growth by the Oak Ridge Laboratory [28] are in agreement on this outlook. Census population projections offer a similar prognosis.[29] However, no matter how sophisticated the model, such projections are in some sense an extrapolation of past trends and will not likely pick up major turning points. One might

[26] For State by State projections of this slowdown, see Roy Bahl, Marvin Johnson and Larry DeBoer, *The Fiscal Outlook for State Governments*, Paper prepared for Hamilton-Rabinovitz, Inc., October 1979.

[27] U.S. Water Resources Council, "1972 OBERS Projections (Series E Population)" (Washington, D.C.: Government Printing Office, April 1974); and Bureau of Economic Analysis, Regional Economic Analysis Division, "Population, Personal Income and Earnings by State: Projections to 2000" (Washington, D.C.: Government Printing Office, October 1977).

[28] Oak Ridge National Laboratory, *Long-Term Projections of Population and Employment for Regions of the United States* (Oak Ridge, Tennessee: December 1978); and, R.J. Olsen, *et al.*, *Multiregion: A Simulation-Forecasting Model of BEA Area Population and Employment* (Oak Ridge, Tennessee: Oak Ridge National Laboratory, October 1977).

[29] U.S. Bureau of the Census, "Population Projections of the U.S.: 1977-2050," *Current Population Reports*, Series P25, No. 704 (Washington, D.C.: Government Printing Office, July 1977).

question whether there are factors at work which are beginning to slow these regional shifts.

Evidence of a new equilibrium.—There is some evidence and logic to support an argument that the growing and declining regions are approaching a new economic equilibrium. One line of argument would consider the limits to growth in some parts of the Sunbelt—water and the ability to provide services to accommodate a large population increase. Another would consider the relative cost of doing business. Labor costs may now be growing as fast in the South as in the North, and there is some evidence that the overall cost-of-living is rising faster in the South. Weinstein reports that between 1972 and 1978, the BLS cost of living index rose by 66.4 percent in Southern cities in the sample but only 56.6 percent for cities in the Northeast region.[30] A continuation of this differential rate of price increase will have the effect of driving up relative labor costs in the South and could be reinforced by increasing union strength in the South—a natural consequence of the movement of manufacturing to the newer regions. The increasing cost of Sunbelt living may improve the relative attractiveness of Northern plant locations, but the process of convergence is painfully slow.

One might speculate that the rate of taxation is becoming more similar and therefore will slow regional job shifts. This would turn out to be little more than speculation. Tax burdens have not become more uniform across the 50 States (see Table II–5) though a few high income-high taxing States have cut taxes or slowed their rate of growth relative to personal income, while some low taxing States have increased effective tax rates to fill backlogs of unmet services and respond to increasing population and income. For example, the declining States of New York and Ohio reduced their relative tax burdens during the 1975–77 period while growing States such as California and Colorado had relative tax burden increases. Yet for the most part, the declining States had relative increases in tax burdens and the growing States had relative declines. This result is not at all inconsistent with a slowing down of the rate of increase in taxes in high income States—the problem is that financial capacity grew even more slowly. The reverse was true for many of the growing States—they did not increase taxes fast enough to keep pace with growth in their taxable capacity.

The effects of the energy crisis on regional shifts in economic activity are anything but clear, but the net effect may well accelerate the decline. The prospects for relatively higher energy prices and uncertain supplies in Northern and Midwestern States suggest a bias in the location decisions of energy intensive firms toward the growing regions. Moreover, rising energy prices can produce a bonanza in energy tax revenues for some State governments. This could substantially ease any fiscal pressures on those States and remove one bottleneck to their continued growth. On the other hand, the rising cost and therefore more limited use of air conditioning could deter Southern economic growth.

Two other factors argue against regional convergence. One is that markets have shifted away from the older regions, and to the extent

[30] Bernard Weinstein, *Cost-of-Living Adjustments for Federal Grants in Aid: A Negative View* (Research Triangle, North Carolina: Southern Growth Policies Board, February 1979).

jobs follow people, the job share in the declining regions may still have a way to go. Finally, there is the question of consumer taste or relative preferences for Northern versus Southern living. The current pattern of migration would suggest a comparative advantage to States which can offer more sunshine and less congestion.

There may indeed be forces operating to slow regional shifts by raising the comparative advantage of the older industrial States. If so, these turning points are so recent that they cannot be detected. A more likely prospect is for a continuation of the Sunbelt shift of the 1970's.

Fiscal adjustments.—Regional movements of population and economic activity will pressure State and local governments to adjust their fiscal behavior. For some Northern States the scenario will be continued, long-term retrenchment. As a State like New York attempts to bring per capita expenditures (40 percent above the U.S. average) into line with per capita income (5 percent above the U.S. average) the central issue becomes how to *lower* the level of public services relative to other States. Few States, and especially New York State, have experience with such matters.

Such an adjustment process is not only slow, but it is also complicated by a number of factors:

- Inflation is driving up costs faster than revenues, accentuating real service level declines.
- Slower real income growth cuts into an already thin margin of revenue coverage.
- Many Northern States are characterized by highly decentralized fiscal systems, hence it is difficult for the State government to plan for or control the aggregate level of State and local government spending and taxing.
- Because of jurisdictional fragmentation the fiscal position of central cities in the declining regions is likely to be hurt a great deal more than that of suburbs, i.e., many of the costs of retrenchment are ultimately paid by low income families.
- There are important psychological barriers to retrenchment—residents find it much easier to adapt to lower taxes than to adapt to lower public service levels.
- The strength of public employee unions, fixed debt and pension commitments, a backlog of needed infrastructure improvements, and the existing near crisis financial conditions of many cities make substantial retrenchment an especially difficult process.

The net result is that while regional shifts in economic activity demand that the formerly rich States bring their fiscal activities into line with their new, relatively low levels of income, the retrenchment process probably involves a period of public sector atrophy in the North. This means that governments won't and can't cut back service levels in the absolute, but if they do not raise tax burdens or expand the quality and quantity of services and spend just enough to keep real per capita expenditures approximately constant, in time the rest of the country will catch up. This process is long and slow and implies making public service levels *relatively* worse, but it is the kind of adjustment that is most likely to occur.

The growing regions will also face fiscal adjustment problems. On the one hand, there is a great amount of rural poverty in the South and Southwest and a need to use substantial amounts of the revenues from growth to deal with these problems. Then there are the pressures from growing population and income to expand infrastructure, improve school and health systems, deal with water shortages and environmental problems and control land use. The growing regions would seem more equipped (than most Northern States) to deal with these pressures, for a number of reasons:

Fiscal resources are growing in part because of regional shifts, even though national growth is slowing, and because State tax structures in the growing regions tend to be more inflation sensitive than those in the Northeast and Midwest.

Government finances tend to be more State dominated and therefore more controllable.

Many urban areas are not characterized by fragmented local government structures.

Some States will experience substantial revenue growth with rising energy prices.

On the other hand, there are State and local government financial problems ahead for Southern States. Much of this increase in spending could come in the form of a catch-up in average wages, hence expenditures may rise more rapidly than public levels. Employment levels, relative to population are already higher in Southern than Northern States, as are levels of per capita debt.

DEMOGRAPHIC CHANGES

Major changes in the national demographic makeup will continue through the year 2000. Fertility rate reductions and mortality rate declines have had the combined effect of pushing the Nation toward zero population growth, an increasing concentration of the elderly and a declining proportion of school-aged children. Concomitant with these trends has been an increasing rate of household formation. The potential effects of these changes on State and local government finances could be significant. Unfortunately this is a virtually untouched research area, hence we can but pull together some disjointed evidence and speculate about fiscal implications.

Expenditure effects.—A slower population growth has uncertain implications for productivity, labor force participation and the growth in GNP, hence the implications for State and local government revenues are uncertain.[31] But a slower population growth rate would seem to imply less pressure on the expansion of public services and therefore less pressure on public budgets. For some services, this would seem intuitively clear. Education, roads and streets, and water/sewer services come quickly to mind. Yet the situation is considerably more complicated. First, the questions must be carefully framed. How does a slower versus a faster role of popular growth, *cet. par.*, effect State and local government finances? What are the fiscal implications of slower population growth for particular jurisdictions and for the aggregate financial position of the State and local government sector.

[31] For a discussion of the possibilities, see Robert L. Clark and John A. Menefee, "Economic Responses to Demographic Fluctuations," *SSEC.*

A slower national growth rate (as compared to a higher national growth rate) might be translated into actual population declines in some of the older regions and in some central cities. On the surface this would seem to alleviate some severe budgetary pressures. Yet the literature is uncertain about the effects of changing population size on public expenditure levels. Consider first the growing cities and States. Despite a great deal of discussion about the possibility of scale economies in the provision of local public services, there is little or no hard evidence to suggest that larger cities could deliver services any more cheaply on a per person basis than could smaller cities.[32] One would conclude from this that a greater rate of population growth, *cet. par.*, means a greater increase in expenditures. Conversely, the loss of city or State population does not guarantee an expenditure reduction because there are many offsetting factors; e.g., inflation, mandates, and simple creation of excess capacity in the city plant. Muller has shown per capita common function expenditures between 1969–73 for 14 declining cities to rise by 51 percent, as opposed to 59 percent for 13 growing cities.[33] As a percent of personal income, he found the growth to be even greater for the declining cities. The determinants of public expenditure change are far too complicated to allow any precise estimates of the cost savings of a lower population growth rate. We can guess that an increase in the rate of population growth, *cet. par.*, increases expenditures, and vice versa, but we do not have a feel for the magnitude of that effect in different types of jurisdictions.

If the question is whether slower population growth, *cet. par.*, reduces the aggregate level of State and local government spending, the answer is probably that it does. A faster population growth would not only generate more service demands but it could also stimulate more migration.[34] The movement of population, as much as the size of population, causes costs to increase; i.e., servicing a new suburban population may increase public sector costs by a greater amount than the cost reductions resulting from outmigration from an old neighborhood.

While differential rates of population growth may have significant budget impacts, the more important effects on public expenditures are likely to come from the changing composition of population. The compositional changes which seem most important in this respect are the increasing proportion of the elderly, the declining number of school-aged children, declining urban densities and declining urbanization.

A growing elderly and retired population could affect public budgets by causing shifts in social service expenditures and by putting pressure on the financing of retirement needs. The two most likely areas of concern are retirement cost and health care expenditures, though other public assistance programs may also be affected. The pressures of an older population on social service expenditures by State and local governments may not be so severe as one might expect. State and local governments do spend substantially more on health care for the elderly than for the younger age groups, but less than 9 percent

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[32] For a review of this literature see Roy Bahl, Marvin Johnson, and Michael Wasylenko, "State and Local Government Expenditure Determinants: The Traditional View and a New Approach," in *Public Employment and State and Local Government Finance*, ed. by Roy Bahl, Jesse Burkhead, and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger Publishing Co., 1980), pp. 65–120.

[33] Thomas Muller, *Growing and Declining Urban Areas: A Fiscal Comparison* (Washington, D.C.: The Urban Institute, March 1976), pp. 82–83.

[34] Assuming that a faster population growth implies a faster real GNP growth rate.

of total State and local government expenditures are for health-hospitals and about 85 percent of health expenditures for the elderly are aided. Moreover, one interesting set of projections suggests that growth in the numbers of elderly will be offset by growth in their income (from earnings and social security) leaving the proportion eligible for public assistance essentially unchanged over the next 40 years.[35] A potentially more important pressure on State and local government budgets may come from the problems of financing State and local government pension plans. If a government were operating on a pay-as-you-go basis, or with substantial unfunded liabilities, and if the age distribution of public employees changed in the same fashion as the demographic makeup of the community, then taxes to finance retirement cost expenditures could rise substantially in the 1980's.[36]

There is a bit more evidence, albeit indirect, on the expenditure effects of other types of compositional changes. Empirical work suggests that declining population densities may reduce spending for urban services such as police and fire and a falling pupil-population ratio could eventually lead to lower education expenditures.[37] As welcome as such relief might be, one should not think too quickly about the possible uses of such savings. First, the effects of inflation may more than offset any "quantity" reduction and anyway, there will be substantial adjustment costs associated with budgetary shifts; i.e., such as from youth to age-related programs. Other "compositional" factors might tend to offset the savings from a slower rate of population growth. The formation of new households will bid up certain costs—e.g., sanitation and fire—and the continuing movement of population to suburban and nonmetropolitan areas may cause the unit cost of providing services to rise.

Revenue effects.—The changing rate of growth and composition of population will also be felt on the revenue side of State and local government budgets. The subject has not been thoroughly worked and one cannot go to a developed body of literature to support speculation about how changing demographics will change revenue flows. Still, it would seem a reasonable proposition that an increasing *share* of the elderly will dampen revenue growth if for no other reason than because of an income effect. Retirees earn less and therefore have less to spend on taxable State and local government items—taxable consumer goods and housing. A related hypothesis is that a dollar of retirement income does not generate the same amount of tax revenue as a dollar of wage and salary or proprietorship income. The elderly receive special relief from State taxes through property tax exemptions, their housing choices run toward less expensive housing and they consume a greater share of income in nontaxable housing, food and medical care.

Another compositional factor is that the ratio of dependent age group to productive age group will decline through the mid-1980's but then begin to increase with increases in the elderly and under 10 years age group. Hence the rate of growth in real sales and income tax revenues could be dampened by the late 1980's.

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[35] John Goodman, "The Future's Poor: Projecting the Population Eligible for Federal Housing Assistance," *Socio-Economic Planning Sciences*, Vol. 13 (1979): 117–125.

[36] A good discussion of the implications of changing demographics on public pensions is Alicia Munnell, *Pensions for Public Employees* (Washington, D.C.: National Planning Association, 1979), Chapter 3; see also, Comptroller General of the United States, *An Actuarial and Economic Analysis of State and Local Government Pension Plans* (Washington, D.C.: Government Printing Office, February 1980).

[37] Stephen M. Barro, *The Urban Impacts of Federal Policies: Volume III, Fiscal Condition* (Santa Monica, California: The Rand Corporation, April 1978).

The other demographic change with important fiscal implications for State and local governments is the changing number of households. A taste for smaller families, the high divorce rate, the postponement of marriage and childbearing and the declining fertility rate have slowed the rate of population growth but not the formation of households. An example of the magnitude of this effect is in New York State where official projections are for a 9 percent increase in population between 1980 and 2000, but a 25 percent increase in households.[38] The fiscal implications of such a dramatic change haven't been carefully studied. At first blush more households within a given size population would seem to imply more income earning units and therefore more taxable capacity. More property *units* would suggest a buoyancy for the property tax, taxable income should increase and there should be an increase in the taxable consumption share of income. The counter-argument is that more young families may result in an increased stock of lower valued housing units and there may be relatively little effect on the property tax. The expectation that more household units will increase the aggregate marginal propensity to consume taxable items (because younger families will go into debt to increase their purchase of durables) is debatable at best.[39]

Overall budgetary implications.—On an *a priori* basis, the fiscal effects of a changing rate of growth and composition of population are so unclear as to tempt one to speculate that they will be inconsequential, except perhaps for the costs associated with adjusting budgets to the new mix of services required. Yet, because some regions will realize these demographic changes more than others, more substantial fiscal effects could emerge. The increasing proportion of the aged and the increasing number of households is a national phenomenon, but the slower rate of national population growth is not being felt to the same extent across all regions. A continuing interregional migration will tend to compensate for declining birth rates in some regions, and reinforce natural population decline in others. Particularly the central cities will feel the change in becoming older, smaller and with more households. If the fiscal consequences of demographic change turn out to be harmful, it is these cities that will be hurt most.

THE LIMITATION MOVEMENT

It is not likely that the tax revolt movements of 1978 and 1979 signal a permanent reversal in the growing share of government in GNP. But it seems clear that fiscal limitations of one kind or another will be a significant influence on State and local government budgets during the next five years. By mid-1979, 30 State legislatures were considering balanced budget amendments as was the U.S. Congress. Some 13 States passed some form of tax or expenditure limitation between 1978 and 1980.[40] The mood is clearly in the direction of slowing the growth of government at all levels.

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[38] *1978 Official Household Projections for New York State Counties*, New York State Economic Development Board, April 1978.

[39] The consumption literature has reached no consensus about the effects of a changing age distribution on the marginal or average propensity to consume. For a good summary, see Louise Russell, "The Macroeconomic Effects of Changes in the Age Structure of the Population," *Economic Perspectives: An Annual Survey of Economics*, Vol. 1 (Harwood Academic Publishers: 1979): 23–49.

[40] These are reviewed in Deborah Matz, "The Tax and Expenditure Limitation Movement," in *Urban Government Finances in the 1980s*, ed. by Roy Bahl (Beverly Hills, California: Sage Publications, forthcoming).

The explanations of this dissatisfaction are many.[41] It seems plausible that increasing taxes would be especially objectionable during inflationary times when real spendable earnings for most American families have hardly increased. As long as the rate of inflation remains high, the objections from this group of voters will remain substantial and growth in government will be resisted. In particular, rising property tax rates place onerous burdens on homeowners in that accrued worth may differ markedly from annual income. Shapiro, Puryear and Ross argue that the high and rising property tax burden was at the heart of the Proposition 13 movement.[42] Another source of discontent is what is perceived of as an inefficient public sector—one that is thought to be overpaid, underworked, and not responsive to citizen needs. Whatever the reasons for this dissatisfaction, it seems likely that some State and local governments will be tied to personal income growth in terms of what they are allowed to spend.

The effect of fiscal limitations, if they stick, will be to reduce the discretion of government decisionmakers in formulating new programs and taxes and in altering the timing of their own fiscal expansions and contractions. Even though there is an option to switch to user charge financing (a compensating device used in the aftermath of California's Proposition 13), it is clear that local fiscal planning will be more constrained and new spending initiatives will likely be bypassed to meet increased spending for "less controllable" budget items.

It is less clear what the effects on aggregate State and local government fiscal activity will be. On the surface, tying tax and expenditure growth to personal income growth would suggest a dampening effect. Yet 12 of the 13 States which have imposed such limits are in the growing region—only Michigan is a declining State. Hence, even with limitations, a growth in taxes above the national rate of income growth could occur (though one might speculate that it would be even higher without the limitation). Moreover, in most cases the limitations apply only to State government and affect the government revenue raised from own sources. It is difficult to see how the limitations *per se* would significantly hold down aggregate State and local government spending. Moreover, even with State tax limitations it is not clear that local spending and taxing would be slowed. The ACIR argues that it would, by 6 to 8 percent per capita by comparison with nonlimitation States while Ladd argues the opposite position.[43]

On the other hand, if there were a more widespread adoption of such limitations, aggregate State and local government taxing and spending would slow but by a significantly greater amount in the declining region. In some States this discipline would be welcome, but it does reduce fiscal flexibility in States where fiscal capacity is growing more slowly.

Perhaps a more significant effect on the budgets of State and local governments is the possibility of limitations at the Federal level. Even without a legal indexing of Federal expenditures, the tax revolt move-

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[41] For an interesting discussion, see Jesse Burkhead,' 'Balance the Federal Budget," *Public Affairs Comment*, LBJ School of Public Affairs, (Austin, Texas: University of Texas, May 1979).

[42] Perry Shapiro, David Puryear and John Ross, "Tax and Expenditure Limitations in Retrospect and in Prospect," *National Tax Journal*, Supplement, Vol. XXXII, No. 2 (June 1979): 1.

[43] Advisory Commission on Intergovernmental Relations, *State Limitations on Local Taxes and Expenditures* (Washington, D.C.: Government Printing Office, 1977): and Helen F. Ladd, "An Economic Evaluation of State Limitations on Local Taxing and Spending Powers," *National Tax Journal*, Vol. XXXi, No. 1 (March 1979): 1-18.

ment will bring pressure to balance the Federal budget more frequently than has been the case in the past. Some of this balancing will likely result in reduced resources available for Federal grant-in-aid programs and in a further dampening effect on State and local government revenues.

The limitation movement gained some momentum in 1978 and 1979, and still more States will probably adopt varying kinds of controls on their budget growth. But inflation, public employee wage demands, Federal assistance cuts and slow economic growth will eventually catch up with some limitation States and stall the limitation movement in others. The limitation and austerity concerns of this year could give way to a renewed worry over deficient public service levels by the mid-1980's.

State legislatures may eventually reason that limitations aren't going to address the underlying problem of an inefficient public sector that so rankles many taxpayers, nor is it clear that it will stimulate local economic development as others hope. Further, limitations may cause State and local governments to make revenue-raising adjustments such as increased use of benefit charges and the creation of special districts—districts created to perform a particular service or function and which are authorized to raise their own revenues. Such policies may well be in the public interest under many circumstances, but not likely if their adoption is justified as a way around a formal limitation.

The adjustments by State and local governments to circumvent debt limitations, and the efficiency and controllability of these agency arrangements, is a lesson worth remembering.

Limitations are not without virtues. They force the political process to accept the fate of allowing a government to live within its means. Yet this discipline is accomplished at a cost of substantial flexibility in fiscal decisionmaking and may induce some inefficient behavior by the limited government.

Revitalization

Some analysts see a revitalization of central cities taking place. It is not usually made clear whether revitalization means increased city population, employment and income, an improved economic position of the central city relative to suburbs, or simply a physical rehabilitation of certain parts of the inner city. Some, who borrow the term "gentrification" from the British, see it as the process of filtering housing (or neighborhoods and retail districts) upward from working class to professional middle class.[44] Whatever the meaning, the implication is that the inner cities of the future will be much less the distressed areas that they now are and that Federal policy toward cities ought to be adjusted accordingly. Indeed, some public policy is premised on the ability to induce more employment and residential activity in depressed inner city areas. A national development bank and tax abatements for construction investments in blighted areas are good examples.

[44] The process involves a filtering of housing from working class families to higher income families, who for some reason have rediscovered the virtues of city living. A useful discussion of the process is in Peter Salins, "The Limits of Gentrification," *New York Affairs*, Vol. 5, No. 4 (1979). For a very optimistic view of urban conditions, see T. D. Allman, "The Urban Crisis Leaves Town," *Harpers* (December 1978): 41-56.

The revitalization argument is made on a basis of *a priori* reasoning, casual observation, and wishful thinking. It has several elements. First, the changing demographics may favor central cities over suburbs. More singles, childless couples, and elderly in the national population; the increased demand for rental housing, smaller and less expensive housing; and the convenience of city living (mass transit, walk to shopping, etc.) will bring people back to the city. Moreover, the deterrent of poor public schools in central cities will be less important for families without children. Second, the energy crisis will favor the city. Workers will move closer to work—and perhaps to where mass transit is available—to avoid the longer and more expensive commute. Third, there is the "bright lights of the city" argument. Cities are exciting places to live with more cultural and social activities, and some new awareness of these benefits will bring back white collar, middle income workers. Finally, there are the agglomeration effects which make the city a competitive location for certain types of white collar and service business activities. As evidence of revitalization, proponents give many examples: a booming Manhattan, Chicago's loop, and Capitol Hill-like neighborhood revivals in most large cities.

Revitalization arguments should not serve as the sole basis for urban policymaking. There is little evidence that city populations are increasing, that their relative (to suburbs) income and employment levels are rising or that their disadvantaged are better off. Indeed, none of these patterns have materialized. Central cities declined in population by about 5 percent between 1970 and 1978, they declined as a share of metropolitan area population and employment, and the city/suburb per capita income disparity has actually grown. If there has been a back-to-the-city movement, it has been dwarfed by the effects of those factors which stimulate decline. Even the *a priori* arguments on revitalization seem flawed. There is some appeal to the notion that childless couples and singles see the city as a desirable location, because they are not deterred by poor quality schools and because of proximity to amenities and work. Yet the *postponement* of having children does not necessarily mean that couples will remain childless or that children will not be planned for. Indeed, some have argued that the fertility rate in the United States will soon begin to increase. If this occurs, the quality of the public schools remains a major drawback to city residential location choices. Locations closer to amenities may also be a comparative disadvantage of cities, e.g., most cities cannot compete with the convenience and choice of suburban shopping centers and in all but a few large cities, the mass transit system would not seem a major inducement.

The energy argument may also be questioned. There are more suburban than central city job locations hence if the rising price of gasoline induced any population movement, it may well be to suburban locations. Moreover, if the commute to work grows too expensive, other kinds of adjustments might be made: E.g., a four day workweek or innovations in communications to minimize necessary personal contact. To the extent movement takes place in response to commuting costs, it is likely blue collar manufacturing workers moving to suburbs. Some white collar workers might be lured to the city, but again the quality of the public schools would be an important impediment.

The "bright lights" argument is based on a notion of cities being exciting centers of cultural and social activity which make city living more exciting. The impression is true enough, perhaps, for a Manhattan or a Georgetown but would hardly seem to fit in other instances.

This is not to argue that revitalization is undesirable, that cities should not be brought back. Rather it is an argument for care in defining revitalization and for realism in assessing what can happen in cities during the next decade. Revitalization can mean a conservation of capital facilities, reinvestment in blighted areas and a general improvement in the quality of city life. This pattern would be perfectly consistent with shrinking population and employment, the displacement of the poor from dilapidated housing in rundown neighborhoods, and the continued loss of manufacturing employment. Revitalization of cities, in this sense, may be a reasonable expectation. But it will mean a diminished need for Federal help in compensating for the economic losses, subsidizing the disenfranchised and generally getting through a tough adjustment period.

Federal Policy

The Federal Government can play a major role in getting State and local governments through the difficult fiscal adjustment period which lies ahead. The question is whether the Federal response will be reasoned and comprehensive or ad hoc and piecemeal. It seems essential that some general guidelines for the Federal response be worked out; i.e., the kind of strategy one might expect to find in a well thought out statement of National Urban Policy. In the absence of such a statement, some very rough generalizations about how such a policy *might* view the financial problems of State and local governments is offered here. These generalizations fall into four areas of question about the appropriate Federal response to urban problems: Whether the Federal Government ought to attempt revitalization of declining areas or compensation during a period of financial adjustment; whether inflation and recession ought to be viewed as a part of intergovernmental policy; what role should State governments play in the intergovernmental system; and what will be the Federal policy toward the big city financial disasters which may lie ahead.

COMPENSATION VERSUS REVITALIZATION

If the Administration's Urban Policy statement of 1978 took any firm position, it was toward a revitalization rather than a compensation strategy.[45] The National Development Bank, the targeted employment tax credit, Neighborhood Commercial Reinvestment programs and expanded UDAG funding all seemed to lean toward renovating a deteriorated economic base in distressed cities. At least the rhetoric of Federal policy would imply a belief that the declining economies can be revitalized. To date there is little evidence that such programs work or have had any effect on the employment base of declining cities, although in some cases it is too early to judge.

[45] "New Partnership to Conserve America's Communities," in *The Fiscal Outlook for Cities: Implications of a National Urban Policy*, ed. by Roy Bahl (Syracuse, New York: Syracuse University Press, 1979), Appendix A.

A compensation policy would take a different tack. It would accept the notion that market forces are affecting a reallocation of population and income within the country and attempt to compensate the most financially pressed governments and families caught in this transition period. The goal would be to protect particularly the low income by subsidizing both the provision of public service and temporary job opportunities while the emptying out process goes on. Public service job programs, categorical grants in the health and education area and Federal relief of welfare financing would be key elements of such a program.

There is a fine line between revitalization and compensation strategies and one ought to be careful not to confuse the latter with any program to abandon cities or declining regions. As interregional variations in the relative costs of doing business and in market size approach some new balance, movements in population and jobs will slow. A primary role of Federal policy could be to assist the most distressed governments during the adjustment process. Hence, subsidies to hold businesses in a region are not an appropriate part of a compensation strategy, if it is known that the business will leave (or cease operations at present levels) when the subsidy is removed. "Transition" grants to States with an overdeveloped public sector, such as New York, are appropriate if they are tied to longer term reductions in the level of public sector activity. Capital grants to renew the city's infrastructure are also appropriate, if the infrastructure investment is based on a "shrinkage" plan. Finally, relocation grants and labor market information systems are perfectly consistent with such a strategy in that they facilitate the outmovement.

THE BUSINESS CYCLE AND INTERGOVERNMENTAL POLICY

The business cycle and inflation have dramatic effects on the financial health of State and local governments. Indeed, it was the severity of the last recession that pushed New York City over the edge and brought many other local governments and at least one State dangerously close to fiscal insolvency. Because swings in economic activity do induce substantial changes in relative fiscal health, one might argue for an explicit recognition of business cycle effects in Federal intergovernmental policy.

In a sense this was done with countercyclical aid and the stepping up of other components of the Economic Stimulus Package in the last recovery, but it was done in an ad hoc manner rather than as part of a coordinated Federal intergovernmental policy. The basic objectives of CETA were initially training and employment of the disadvantaged and then countercyclical stimulus, and Local Public Works was meant to stimulate State and local government construction. Some would argue that both became general purpose fiscal relief programs, and that neither exerted a strong stimulative effect on the economy.[46]

Apparently, little was learned from this experience about the relationship between countercyclical policy and national urban policy.

[46] Evaluation of CETA programs is reviewed in Robert Cook, "Fiscal Implications of CETA Public Service Employment," in *Fiscal Crises in American Cities: The Federal Response*, ed. by Kenneth Hubbell (Cambridge, Mass.: Ballinger Publishers, 19/9), pp. 193–228. The stimulative impact of local public works is analyzed in Edward Gramlich, "State and Local Government Budgets the Day After It Rained: Why Is the Surplus So High?" *Brookings Papers on Economic Activity*, 1 Washington, D.C.: Brookings Institution, 1978), 191–214.

The fact is that as the United States economy approaches another recession, there is not a firm countercyclical policy.

If business cycles were linked to intergovernmental policy, an essential feature of the system would have to be targeting on relatively more distressed jurisdictions. This raises the especially thorny problem of identifying those communities most hurt by recession, and the severity of the recession in the various regions. The evidence of the past two recessions seems clear—the older manufacturing belt in the Northeast and Midwest was hit hardest.[47] Expectations are for a similar regional impact of the next recession.[48]

An ambivalence—at the Federal level—about the "proper" role of State government in State and local government finances may exacerbate some of the problems created by inflation and a slower growing economy.[49] State governments raised 58 percent of all State and local government taxes, made 38 percent of direct expenditures and accounted for 73 percent of Federal aid in FY 1977. Yet State government seems to be approaching a new crossroads—a redefinition of its fiscal role. The past decade has seen two important but contradictory influences on State government financing and service delivery. The first is in respect to its relationship with the Federal Government and its place in the intergovernmental system. Total grants-in-aid have quadrupled since 1970, but much of this growth has been in direct Federal to local grants, with the States being bypassed. In 1977, local governments were directly receiving 27 percent of total Federal aid to State and local governments, as compared with 13 percent in 1970. This policy of direct Federal-local relations is not inconsistent with the view from some State capitals (e.g., New York and Ohio) that city financial emergencies are as much Federal as State government responsibilities. Now, as the end of the General Revenue Sharing authorization approaches, the Administration has recommended elimination of the State share. Whether or not State governments have brought this change on themselves by abrogating their responsibility toward urban governments is debatable, but the drift toward reducing the importance of State government in the intergovernmental process seems real enough.

The second way in which the State role is changing is in the continuing shift of financial responsibility from local to State governments. The State government's share of total State and local government taxes collected rose from 50.7 percent to 57.5 percent between 1965 and 1977, and the State's share of direct expenditure increased from 34.9 to 37.9 percent. The State aid share of total State expenses remained about constant between 1965 and 1977, but the State government share of health, education and welfare direct spending increased markedly. States may not have done all that they should to lift the financing burden off the local property tax, and too little may have been done about city suburb fiscal disparities, but the trend toward more State fiscal responsibility has continued. A combination of local government

[47] Kathryn Nelson and Clifford Patrick, *Decentralization of Employment During the 1969–1972 Business Cycle: The National and Regional Record* (Oak Ridge, Tennessee: Oak Ridge National Laboratory, June 1975); and Richard Rosen, "Identifying States and Areas Prone to High and Low Unemployment," *Monthly Labor Review*, Vol. 103, No. 3 (March 1980): 20–24.

[48] John Zamzow, "The Current Recession: Its Regional Impact," Hearings Before the Joint Economic Committee, October 16, 1979 (Washington, D.C.: Government Printing Office, March 1980) pp. 39–55.

[49] See also the discussion by George Break "Intergovernmental Fiscal Relations" in *Selling National Priorities: Agenda for the 1980s* Washington: Brookings 1980.

tax or expenditure limitations, a more elastic State government tax structure and high rates of inflation could accentuate this trend.

In fact, the increased Federal-local aid flow may have slowed the trend toward State financial assumption. Before 1975, State aid had behaved as though it were a highly elastic tax; i.e., for every 1-percent increase in personal income, there was a 1.6-percent increase in State aid to local governments. That responsiveness fell to 0.96 percent in 1976 and 0.69 in 1977.

With resources limited, it seems imperative to develop a less ambiguous Federal position about the role and responsibility of State governments. Is fiscal centralization to be encouraged or not and should States—as a prerequisite to Federal assistance—be required to deal with the city suburb disparities problem?

DEFAULT AND EMERGENCY LOANS

Financial emergencies, if not default, lie ahead for many large cities. If it does nothing else, a national urban policy ought to outline the Federal response to such crises. Dealing with New York City on an ad hoc basis was excusable there had been little reason to be concerned with municipal default since the depression. In many respects the New York City crisis of 1975 was a special case.[50] But how many special cases can there be before a policy response must be made? Cleveland and Wayne County have much in common with New York City in terms of weaknesses in the underlying economy, as do many of the other cities which commonly appear on the distressed lists.

Two questions are essential in formulating a Federal policy toward distressed cities. The first involves defining the conditions necessary for initial Federal intervention; i.e., what avenues must be exhausted before emergency Federal subsidy is warranted? The second is what adjustments must the city make as a condition of receiving the aid. Neither question seems to have been clearly thought through and neither is to be found in the Administration's Urban Policy Statement.

On the first issue, one might query the role of State government as having a prior responsibility for city financial problems. Should there be an emergency loan to New York City when New York State runs enough of a surplus to cut taxes? Some would argue that the Clevelands and Detroits are primarily the business of the Ohios and the Michigans and Federal bailouts are a last desparate resort. The view from the Statehouse is likely to be quite different. State governments could well argue that a combination of local autonomy, Federal mandates and direct Federal-local aids have taken much of the control of local fiscal excesses out of their hands. Federal actions stimulated the local fisc and may have created some of the risk of default; hence, the Federal Government should participate as at least an equal partner in the bailout. The State argument seems strong. In order to require States to shoulder more responsibility for the fiscal problems of their local

[50] New York City was unique in the sense of its size, the broad range of functions for which it had responsibility and the excesses in its financial management, particularly its short-term borrowing practices. On the other hand, New York City was not at all unique in terms of its declining economic base, loss of population, rising "dependent" population, and slow growing tax base. For a discussion of the "uniqueness" of New York during this period, see Roy Bahl, Alan Campbell, David Greytak, Bernard Jump, Jr., and David Puryear, "Impact of Economic Base Erosion, Inflation, and Retirement Costs on Local Governments," Testimony: Fiscal Relations in the American Federal System: Hearings before a Subcommittee on Government Operations, House of Representatives, 94th Congress, First Session (Washington, D.C.: Government Printing Office, July 15, 1975).

governments, the Federal Government must be less ambiguous about the role of State government in the intergovernmental system. If States are to have first claim on filling the financing gap of cities facing financial emergencies, they might reasonably argue for more control over service level mandates and resources passing through to the local level. If cities' financial conditions are to be viewed independently of State government, then a set of criteria for local fiscal actions which must be taken prior to Federal intervention should be established. These might include emergency tax levels, program and employment cutbacks, a wage freeze, and perhaps debt rescheduling.

The second issue is how far will local governments be required to go in altering their fiscal behavior as a condition for continuing to receive the emergency loan or grant, and how will the fiscal improvements be monitored? The most important question to be resolved is how will the Federal Government opt to distribute the burden of an austerity program. Employee layoffs and wage freezes will lay much of the burden on public employees, program cutbacks and tax increases on citizens and bond repayment stretch-outs or moratoriums on bondholders. A Federal policy which accommodates a bailout in a period of emergency, will implicitly or explicitly make such choices.

Another alternative is to make it clear that the Federal Government will not rescue cities from default, even in the case of the most severe emergencies. Even as a statement of national policy it would be difficult to make this believable with the history of New York City, Lockheed and Chrysler. But if local and State governments were convinced that a borrower of last resort was not available, their financial practices may become much more conservative and their fiscal strategies more risk averse. Whether that would be in the national interest is precisely the sort of question a reasoned national urban policy would address.

State and Local Government Policy

A National Urban Policy is essential. State and local government financial problems will materialize in the 1980's and a reasoned Federal response will be imperative. Yet most of the required adjustments will fall to State and local governments, the vast majority of which are neither distressed nor flush.

The fiscal fates of State and local governments will be determined largely by factors outside their control—inflation, the performance of the national economy, and the level and distribution of Federal grants. Still, State and local governments have considerable discretionary powers to influence their financial health during this period of adjustment.

The most popular reform is to offer a program for productivity increases. It is popular because it does not cost the taxpayer, can be used as a basis to reward public employees and best of all, its success or failure can't be measured. It is unlikely, however, that productivity increases in and of themselves will result in balanced budgets. A related issue is whether the tone of the productivity discussion might change with rising materials and energy costs. Heretofore much of the attention had centered on whether capital could somehow be substituted for labor thereby increasing output and reducing the use of

the relatively expensive labor factor. If materials and energy costs continue to rise at present rates, relative to labor costs, the enthusiasm for new technologies in the public sector may cool.

A second strategy is the use of tax and subsidy policy to stimulate regional economic development.[51] State and local governments in both growing and declining regions attempt to improve their competitiveness as a business location by offering various kinds of subsidies; e.g., tax abatements, tax holidays, subsidized loans, grants of land, etc. Whether these subsidies have actually contributed to local economic development is as debatable as the issue of whether the induced revenue gains from new business have exceeded the expenditure costs.

Probably the most important strategy in which governments in the declining region can participate is retrenchment; i.e., the adjustment of public service levels and the growth in expenditures to properly reflect capacity to finance. Retrenchment involves cuts in service levels and employment, a more realistic look at the kinds of compensation and benefit levels that can be afforded, and a careful conservation of those capital resources that are available. With respect to the latter, one would expect to see a great deal more emphasis placed on maintenance and renovation of the existing capital stock than on the construction of new capital facilities.[52] The austerity programs in some cities have included these kinds of adjustments, but other public policies have been surprising. Relative tax burdens have gone up in the declining region, the fiscal limitation movement has pretty much been limited to the Sunbelt, and public employment rolls in the declining region have expanded in the past two years.

In the growing regions, local governments also face serious adjustment problems which will require them to plan carefully the growth in their budgets. The problems are essentially how much should a government grow and how fast should this growth occur. The mistakes of governments in the older region might be avoided if the long-term expenditure implications of fiscal decisions are evaluated against the potential long-term growth in the local resource base. Fiscal planning and forecasting is a relatively new art and science, but is being used effectively in many cities, especially those in the growing region.[53]

The most pressing of the fiscal adjustment problems are keeping the infrastructure development in step with population and employment growth. With rising material and capital costs, and the prospects for less Federal aid, this could become a serious bottleneck to growth. At the same time there is the danger of allowing growth to become too rapid and uncontrolled and to lead fiscal development to a point where there is no possibility for careful long-term budgetary planning.

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[51] For surveys of State and local government tax incentive programs and studies of their effectiveness, see Larry Schroeder and Paul Blackley, "State and Local Government Locational Incentive Programs and Small Business in Region II," Paper prepared for the Small Business Administration Project, "The Regional Environments for Small Business and Entrepreneurship," Metropolitan Studies Program, Syracuse University, September 1979: Roger Schmenner, *The Manufacturing Location Decision: Evidence From Cincinnati and New England* (Cambridge, Mass.: Harvard Business School and Harvard-MIT Joint Center for Urban Studies, March 1978); and Michael Wasylenko, "The Role of Taxes and Fiscal Incentives in the Location of Firms," in *Urban Government Finances in the 1980s*, ed. by Roy Bahl (Beverly Hills, California: Sage Publications, forthcoming).

[52] For an example of the results of careful management of the capital stock in a declining city—Cincinnati—see Nancy Humphrey, George Peterson, and Peter Wilson, *The Future of Cincinnati's Capital Plant* (Washington, D.C.: The Urban Institute, 1979).

[53] Roy Bahl and Larry Schroeder, *Forecasting Local Government Budgets*, Occasional Paper No. 38, Metropolitan Studies Program, The Maxwell School (Syracuse, New York: Syracuse University, 1979).

The principles of a national urban policy and optimal fiscal adjustments by State and local governments are move wishful thinking than realistic expectations. The likely performance over the next 5 years will involve a series of financial crises and ad hoc Federal responses. The following would not seem an unreasonable scenario:[54]

The national economy will go through a recession and begin a period of slow real growth. Inflation rates will remain high.

Some local governments—mostly but not exclusively large cities in the North—will either default or come to the point of being unable to meet their expenditure commitments. A round of public employee layoffs—reminiscent of 1975/76—will probably take place.

Despite the recognition of capital obsolescence problems, the quality of the capital stock, especially in the older regions, will continue to deteriorate. Higher interest rates, inflation, reduced Federal aids and pressing financial problems will push State and local governments to "defer" further capital construction, maintenance and renovation.

The next five years will see another catch-up in public employee compensation rates. This lagged effect of recent year's deferred compensation increases will be further stimulated by the currently high inflation rate, and will account for virtually all of the public expenditure increases of some jurisdictions. The increase in average wages will be especially rapid in the South where average wages are relatively lower and where unionization is increasing.

Relative levels of tax burdens will rise in many States in the growing regions in response to increasing costs and service quality, and will decline in the Northeast as austerity programs begin to take hold.

The limitation movement will not significantly slow the growth of State and local government spending after the early 1980's.

Federal policy toward State and local government finances will remain ad hoc, and there will be no guiding principles. The overall level of Federal grants (in real terms) will likely decline and less targeting might be expected during the next five years as the growing region more forcefully makes its point about rural poverty.

This prognosis could be altered by either a coherent Federal Government policy toward State and local government finances or by a better performing United States economy. In the last analysis there could be no better national urban policy than a low inflation rate and a strong growth in GNP.

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[54] Another view of the future is International City Managers Association, *New Worlds of Service*, Report to the Profession from the ICMA Committee on Future Horizons (Washington, D.C.: ICMA, 1979).

GOVERNMENT POLICY AND INDUSTRIAL LOCATION IN THE UNITED STATES

By John Rees* **

CONTENTS

SUMMARY

This study reviews a number of locational changes in American industry in the postwar era. Major changes are found to have taken place at the interregional level, but with links to industrial decentralization processes at both the international and intraregional scales. Some powerful market mechanisms are seen to be behind these

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changes, particularly developments in technology which influenced the structure of industries and their locational requirements, and the perpetual search for greater profitability by companies responding to cheaper production factors and the image of greater efficiency in new areas.

The role of government policy in these industrial location processes is specifically addressed, and the overriding conclusion is that government policy to date has had very little direct impact on industrial location trends in the United States. Taxation policy is seen as a production factor that only marginally affects industrial location. The lack of direct incentives to industry and the low priority given to economic development assistance in the U.S. has caused government policy in this area to be of minimal influence. Certain industries in specific regions are seen to be heavily dependent on Government contracts for their existence, but the studies and data analyzed show little evidence that any regional bias toward the growth regions existed in awarding these contracts. The stringent environmental protection policies that have evolved in the United States in the 1970's are seen to have a large potential impact on industrial development, but again no evidence is forthcoming that such policies are having a more detrimental impact on the states of earliest industrialization. Some of the highest expenditures on pollution abatement are indeed made in areas that experienced some of the highest industrial growth rates in recent times. Since all government policies have a locational impact of some kind, an attempt is made to assess these indirect effects. This area is fraught with methodological problems, but such policies are found only to have a minimal impact on industrial location.

This study recommends that more priority be given in the future to improving data bases and analytical procedures to enable policymakers to anticipate any direct or indirect effects that policies may have in different parts of the country. Given the potential impact that recent legislation on airline deregulation and current developments in the energy sector may have on regional change in the United States, the need for more effective anticipatory regional policy analysis becomes even more acute. It is suggested that regional impact analysis be a mandatory part of economic impact statements that accompany legislation.

When one considers the recent progress that has been made in increasing the economic equality between various regions of the United States alongside the conclusion that government policies have had little influence on industrial location trends, there is little reason to believe that increased government intervention will enhance the economic health of regions within the country. Given this, together with the questionable success of a greater emphasis on industrial location policies in various European countries, the study recommends that restraint be shown and careful anticipatory analyses be undertaken before any legislation is considered which has a regional or urban focus.

Introduction

The 1960's and 1970's witnessed major changes in the structural and regional fabric of the American economy, as well as in the character of government policy at the Federal level. Decreases in the growth rate

of the American economy compared with that of other national economies, the relatively high growth rates in the service sector compared to manufacturing, the reallocation of resources within the United States as manifested by the growing states of the South and West and the relative stagnation of states in the North and East together with the unprecedented growth of nonmetropolitan areas are processes in obvious need of attention at the highest level of government. Economic structure, as Alfred Chandler noted in the 1950's, can determine changes in strategic policymaking; and policy decisions in turn can have a determining effect on structure, both economic and social.

The size and complexity of these structural and regional changes, perhaps only parallelled during the course of this century by changes in the 1920's, and 1930's, as well as their recency (many being ongoing processes) make them difficult to evaluate in their proper perspective. Time indeed tends to lend enhancement as well as enchantment to understanding. The overriding goal of this paper is to examine changes that have taken place in the regional economic structure of the United States, and to assess the role of government policies in these changes in relation to other salient factors that fall under the general rubric of market mechanisms.

The impact of government policy on industrial location and regional economic development in different parts of the United States has been given much attention by the news media in the last two years; and there is always a tendency for such publicity to capture attention in the political arena. This can result in policy enactment without enough cautionary examination of political expediency or without enough time for serious analytical research to explore the full short- and long-term implications of alternative policies. This is particularly the case in a dynamic society like the United States where the pendulum of change can swing freely from one extreme to another and where the time-honored consensus of "least government as the best government" can result in reactive as opposed to anticipatory solutions to problems. Reactive policymaking can result in a form of disjointed incrementalism where policies are arrived at independently and incrementally without careful review of alternative options. This, together with the complexity of the changes themselves and coupled with a lack of "ceteris paribus" conditions makes the impact of government policy on regional economic structure a difficult area to assess with precision. However, this may also make the task more important to undertake.

Part I. Structural and Locational Changes in American Industry

In the post-1945 era, the United States (like other countries) has witnessed important changes in its economic structure. The service sectors serving consumers, businesses, and government have been growing at faster rates than the manufacturing sector, at least in employment if not in productivity. Rapid technological changes have also taken place affecting the service economy as well as manufacturing. At the same time changes in the location of economic growth have taken place and it is a postulate of this paper that the locational changes are linked to the structural ones. To begin with, however, the structural and locational changes will be examined separately.

A. Structural Changes

1. THE RELATIVE GROWTH OF MANUFACTURING AND SERVICE INDUSTRIES

The first major change of a structural nature that has taken place involves the growth of manufacturing activities relative to nonmanufacturing activities. The relatively faster growth of the service economy (banking, insurance, communications) as shown by employment data in Table 1 has led some to conclude that we are now living in a post industrial society where information-intensive activities and other service activities generate more growth than manufacturing.

TABLE 1.—MANUFACTURING'S DECLINE AS A PROPORTION OF TOTAL U.S. EMPLOYMENT, 1945–75

Year	Manufacturing employment (millions)	Total nonagriculture employment (millions)	Manufacturing as percent of total employment
1947	14.294	43,881	32.6
1954	16.099	49.022	32.8
1958	16.025	51.363	31.2
1963	16.958	56.702	29.9
1967	19.323	65.857	29.3
1972	19.029	73.714	25.8
1975	18.342	77.051	23.8

Source: Census of Manufactures; Bureau of Labor Statistics.

A study by Moriarty (1976) [1] examined whether metropolitan area growth in the United States during the period 1959 to 1970 was primarily a function of growth in the manufacturing sector or of growth in the service sector. The study (Moriarty, 1976, p. 209) concludes that "both population and total overall employment growth have been more dependent on the growth of the service sector and the growth of the service sector has not been totally dependent on the growth of the manufacturing sector alone. . . . The investigation fails to provide sufficient evidence to verify the proposition that the country's metropolitan area growth during the period is primarily a result of the growth in demand for manufactured goods produced in cities." Similarly Brian Berry has stated that "the explosive metropolitan growth of the South, Southwest and West was led by the tertiary and the quaternary sectors." In the same vein Miernyk (1976) recently tested the so-called Clark-Fisher hypothesis that suggests rises in per capita income as a regional economy advances from specialization in the primary or extractive sector through the secondary or manufacturing sector to the tertiary or service sector. For 15 southern states between 1940 and 1975 Miernyk found that "per capita income decreases as dependence on manufacturing increases and per capita income increases as relative dependence on trade and service employment increases" (Miernyk 1976, p. 22).

To equate the results of such studies with the demise of the manufacturing sector, however, is dangerous, particularly since analyses of employment data alone ignore the impact of technological change, i.e., the substitution of capital for labor and its translation into productivity differentials. Indeed Miernyk (1976, p. 25) points out that "tertiary activities benefit less from technological change than primary

[1] See bibliography.

and secondary activities. And it is technological change broadly defined which produces rising real incomes." The implications of this statement are reminiscent of the early work of the French economist Jean Fourastié, who postulated that a shift in the labor force from the secondary to the tertiary which is not the result of technological change is evidence of economic weakness rather than strength, or what he called the "tertiary crisis." This lack of productivity in the service economy was recently confirmed by the National Science Board's recent collection of *Science Indicators* (1977).

It may not be mere coincidence therefore that American productivity which grew fairly rapidly during most of the postwar era took a puzzling drop in the late 1960's (Denison, 1978). In his explanation of why national income per person employed (NIPPE) dropped in the early 1970's. Denison concludes that governmental controls have required "the diversion of a growing share of the labor and capital employed by business to pollution abatement and to the protection of employee safety and health." Given the decline of R & D spending as a proportion of GNP in the early 1970's Denison (1978) suggests that "managerial talent ordinarily devoted to developing means of cutting costs may have been absorbed by the need to adapt to a flood of new controls over the conduct of business." He adds that government regulation may have delayed the implementation of decisions that could have advanced productivity but does not attribute any of the productivity slump to the relative economic shift to the service sector. This may be due to reasons overlooked in growth studies that merely dwell on employment as the prime variable. One is that growth of service employment may be a direct result of greater productivity in manufacturing which has made available an increased supply of goods at a relatively low price. The other is a factor borrowed from investment theory, the accelerator principle, which emphasizes the importance of an increase in demand for innovation from the service sector (telecommunications, banking, information processing) which in turn results in increased investment and productivity in the manufacturing sector. Despite the relative growth of the service economy in recent times (Table 1) and the relative decline in productivity in the American economy, there is no concrete proof to date that both processes are causally connected.

2. CHANGES WITHIN MANUFACTURING INDUSTRY

In the postwar era major technological changes in the manufacturing industry have given rise to a series of growth industries that did not contribute to the economic growth of the United States in prior technological epochs. These manufacturing growth sectors (Table 2) are intuitively recognizable: electronics (Standard Industrial Classification [SIC] 36), that part of the machinery industry (SIC 35) classified as computing equipment; chemicals and plastics (SIC 28 and 30), aerospace production (SIC 37), and scientific instruments (SIC 38). They are all industries with above average growth rates in the Federal Reserve production index when cyclically adjusted. From the Bureau of Economic Analysis data in Table 2 the leading growth industry in terms of employment between 1950 and 1970 is electronics. Electronics was also the leading producer of American innovations according to

recent studies by the National Science Board (1977). In most respects, therefore, electronics has become the leading growth sector of the American economy in the middle part of this century in the same way that the machine tools industry was considered the key sector of the industrial boom period at the end of the 19th century. Indeed electronics is taking over many of the key functions of the machine tools industry by providing some of the most necessary equipment in other industries: food processing, apparel manufacturing, transportation equipment, telecommunications, avionics, and data processing.

TABLE 2

	Growth			Technology			
SIC	Percent value added, 1963–72	Employment growth, 1950–70 (BEA)	Growth sectors (Estall/ commerce)	Technology intensity (innovation per net sales)	Major U.S. innovations	Intensity (R. & D. funds percent net sales)	Innovation per R. & D. dollar
High technology:							
36 electronics	80	+153.0	×	1.0	53	8.2	1.0
37 transport equipment	75	+65.0	×	.36	29	11.2	.5
38 scientific instruments	165	NA	×	2.6	29	5.8	3.8
28 chemicals	84	+57.0	×	.99	45	3.8	2.1
30 plastics	150	NA	×	1.29	15	1.9	5.6
Low technology:							
20 food	63	+3.5		.04	2	.4	.8
22 textiles	91	−19.0		.33	4	.5	5.9
23 apparel	72	+21.0		.33	4	.5	5.9
24 lumber	156	−14.0		.37	2	.5	6.1
25 furniture	99	−14.0		.37	2	.5	6.1
26 paper	77	+45.0		.22	4	.8	2.3
27 printing	93	+62.0		NA	0	NA	NA
29 petroleum	56	−23.0		.09	5	.8	.9
32 stone, clay	79	NA		1.83	18	1.6	9.7
33 prime metals	52	+8.0		.48	17	.7	5.2
34 fab. metals	129	+82.0		.60	10	1.3	3.8
35 machinery	117	+61.0	×	1.08	44	3.9	2.3

Sources: Bureau of Census.

The growth sectors in Table 2 have been labeled high technology sectors. The definition of "technology intensity" is elusive, partly because of the incrementalism that complicates the definition of innovation. When industries with the highest innovation per net sales from Table 2 are compared with those showing the highest growth rates in U.S. patents and the National Science Board's major innovations, it is the growth sectors that stand out. When R & D intensity (R & D funds as a percentage of sales) is compared with technological intensity (innovations per net sales) in Table 2, a statistically significant correlation is evident ($r=.88$, $p<.01$). When the technological intensity of these sectors is correlated with changes in value added over the period 1963 to 1972 (both years covered by Census of Manufactures) a statistically significant relationship is again evident ($r=.537$, $p<.05$). The largest growth sectors in American manufacturing, as one might expect, are both technology intensive and R & D intensive. But when technological intensity (innovation per net sales) is compared with innovation per R & D dollar spent, a statistically insignificant correlation is evident. This reflects the argument made by Mansfield and others that large companies, the largest spenders of R & D dollars, and the largest producers of innovation are not neces-

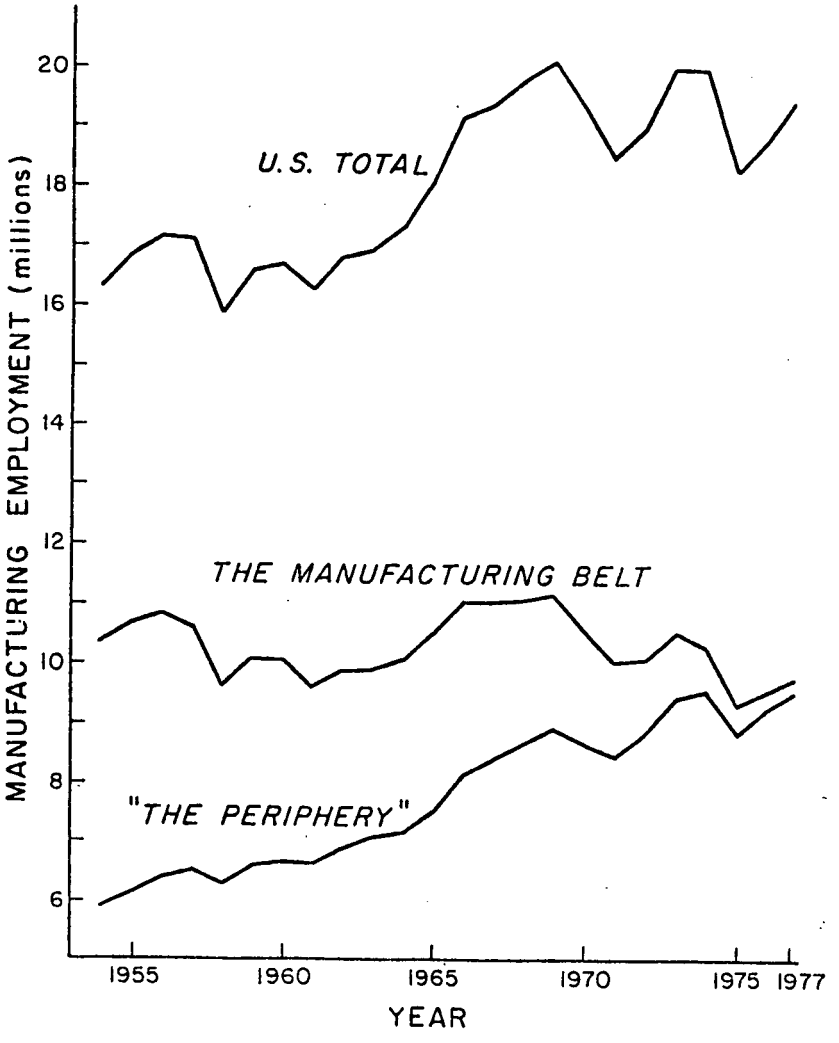
sarily the most efficient producers of innovations. Indeed the National Science Board found that small firms produced about four times as many innovations per R & D dollar as medium sized firms and about 24 times as many as large firms. Therefore, though the manufacturing growth industries of recent times have been the most innovative, this does not imply that larger companies are more efficient producers of innovation than smaller ones.

B. Locational Changes

These changes in the structure of the American economy have taken place at a time when major changes have also occurred in the location of economic activity. Indeed a causal relationship can be seen between the structural and locational changes. In the rest of this paper, changes in industrial location explicitly imply manufacturing industry and not the service sectors. Yet, over the 1966–77 period, state by state employment changes in the manufacturing sector closely paralled what happened in the service sector. States losing manfacturing jobs from 1966 to 1977 also had below average growth in service employment, while states gaining in manufacturing employment gained in service employment too. Therefore, as suggested by traditional regional development theory, a State's economic health depends to a large degree on the competitiveness of its manufacturing sector.

The most striking recent change in the location of economic activity within the United States has been the growth of states in the South and West and the relative stagnation of states in the North and East—the popularized Snowbelt-Sunbelt shift. This change can be interpreted as the diffusion of economic activity from the core region of the country to the periphery (Norton and Rees, 1979). It is part of a catching up or regional convergence process, as suggested by Jusenius and Ledebur (1976) and the Advisory Commission on Intergovernmental Relations (1978) and is illustrated in Figure 1. The traditional manufacturing heartland of the United States, defined as the New England, Mid Atlantic, and East North Central regions by the Bureau of Census, has been losing ground to the more peripheral areas of the Nation. This resulted initially in the growth of California in the post-war era and more recently in the growth of certain key states of the Southeast and Southwest regions. It is important to realize that the growth of the Sunbelt is in reality the growth of only a few key states including Texas, Florida, North Carolina, and Arizona, and that within these states the growth process manifests itself only in a few large urban complexes. The notion that there is a great variation in the growth rates of states within this vast heterogeneous region known as the Sunbelt and even greater disparities within individual states . . . witnessed little serious study.

FIGURE 1.—Regional trends in manufacturing employment



Source: Norton and Rees, 1979.

1. THE REGIONAL CHANGES IN MANUFACTURING ACTIVITY

Table 3 shows changes in manufacturing employment by census region for the period 1947–1976. The first economic census after World War II was taken in 1947 and the most recent comprehensive data on manufacturing comes from the 1976 Annual Survey of Manufactures. Over the 1947–63 period, the three census regions of the Manufacturing Belt gained over 230,000 manufacturing jobs with the six New England States showing the only absolute decline in employment. During the same time, the other peripheral census regions gained 2.4 million manufacturing jobs with the largest gains occurring in the Pacific region, specifically California. In the 1963–1976 period, the Manufacturing Belt lost over 370,000 manufacturing jobs though some of the states of the East North Central region made up for the large losses of the Mid Atlantic States. The peripheral regions continued to show increases in manufacturing employment over the 13 years, this time 2.1 million. Thus the period from the mid 1960's–1970's can be seen as the era when the Manufacturing Belt as a whole declined in absolute employment terms.

TABLE 3.—CHANGES IN MANUFACTURING EMPLOYMENT TYPE BY REGION, 1947-76

Region	1947–63			1963–76		
	Change in total employment	Change in production workers	Change in non-production workers	Change in total employment	Change in production workers	Change in non-production workers
New England	−50.2	−205.7	155.5	−85.7	−141.9	56.2
Mid Atlantic	121.3	−399.1	520.4	−573.9	−568.6	−5.3
East North Central	160.9	−333.8	494.7	301.9	90.0	211.9
Manufacturing Belt	232.0	−938.6	1,170.6	−357.7	−620.5	262.8
West North Central	228.3	78.9	149.4	237.9	161.2	76.7
South Atlantic	600.9	320.3	280.6	609.7	397.3	212.4
East South Central	252.3	153.8	98.5	407.8	291.2	116.6
West South Central	313.8	169.3	144.4	488.2	327.4	160.8
Mountain	143.2	80.6	62.6	154.4	98.4	56.0
Pacific	884.4	444.8	439.6	266.0	182.4	83.6
Periphery	2,422.9	1,247.7	1,175.2	2,164.0	1,457.9	706.1

Source: Census of Manufactures.

The genesis of decline in the Manufacturing Belt is seen clearly when manufacturing employment data are disaggregated into production and nonproduction workers (Table 3). It is the people directly involved in production—as opposed to administration, wholesale and other support activities—that form the core of manufacturing. Despite the absolute increase in manufacturing employment in the Manufacturing Belt between 1947 and 1963, the number of production workers declined by nearly 1 million while the periphery region gained 1.2 million. Similarly, the absolute loss of 373,000 manufacturing employees in the Manufacturing Belt disguises an even greater loss of production workers (620,000) while the peripheral region again gained more than 1 million workers in production.

Two inferences can be made from Table 3. One is that the decentralization of key production workers from the Manufacturing Belt to other areas of the U.S. has been going on for at least 30 years: it is, therefore, not a new process of the 1960's and 1970's. Traces of the shift can be found in the movement of the textile industry from New England to the Carolinas, a shift that has continuously been fueled by

the search for cheaper factors of production by various manufacturers (Danhof, 1964). The fact that the process is of more concern today than it has been in the past is not only due to the Manufacturing Belt's absolute decline in manufacturing employment in the late 1960's and early 1970's. The context of the decline is important, i.e., the 1970's are an era of scarce resources. The overall growth rate in the national economic system is lower so the regional allocation within the system becomes even more important, as succinctly pointed out by Alonso (1978). In a demographic context he writes: "As far back as the beginning of the century, the Sunbelt centers such as Phoenix, Houston, San Diego, and Miami were already strong gainers from migration; but as long as natural increase remained high every area was growing and sectionalist jealousies were small" (Alonso, 1978, p. 73).

A second inference that can be made from Table 3 is the increasing importance of nonproduction workers within the manufacturing labor force. Production workers accounted for 83 percent of the manufacturing labor force in 1947, 72 percent in 1963, and 69 percent in 1976. The Manufacturing Belt lost nearly 1 million production workers between 1947–1963 but gained over 1 million nonproduction workers in manufacturing, roughly the same gain as witnessed in the peripheral region. The Manufacturing Belt still gained in nonproduction workers between 1963 and 1976 but only by 25 percent of the gain in the periphery. If greater amounts of administrative or nonproduction workers in the region can be equated with a greater degree of control over manufacturing activity, then Table 3 shows the Manufacturing Belt has lost less control over manufacturing than it has lost in actual production. In a recent study of manufacturing headquarters in various parts of the United States, the author (Rees 1978) uses Census Enterprise Statistics to make the argument that in the late 1960's and early 1970's the Manufacturing Belt indeed increased its *de jure* control of manufacturing activity in other parts of the United States. This concurs with the study of Dicken (1976) using Federal Trade Commission data on mergers and acquisitions between 1955 and 1968 and is testimony to earlier statements made by Senator Kefauver in 1947. "The control of American business is steadily being transferred from local communities to a few large cities in which central managers decide the policies and the fate of the far-flung enterprises they control." Though the tendencies toward what has become known as "external control" are not a central issue in this study, it is a process found implicit in the regional changes taking place in the U.S. in recent times.

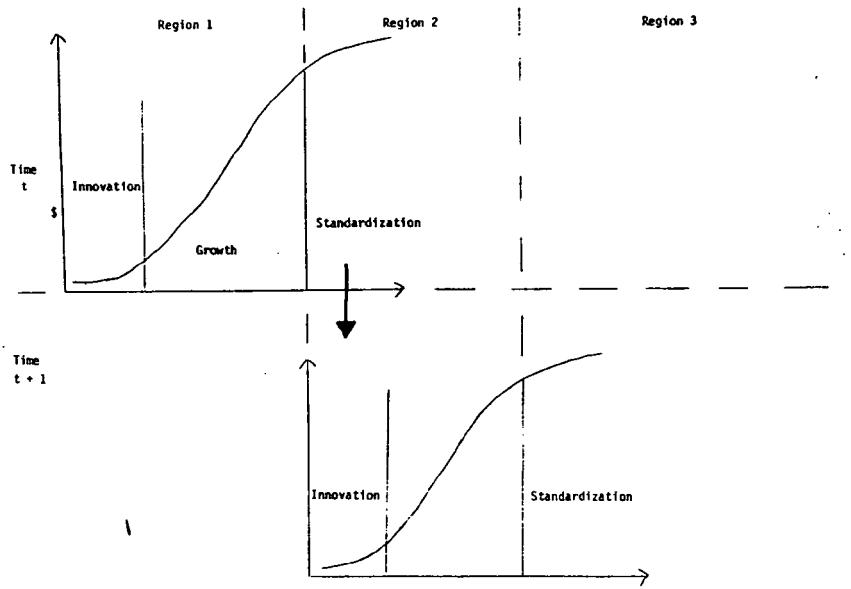
2. THE PRODUCT CYCLE MODEL AS AN EXPLANATION OF REGIONAL INDUSTRIAL CHANGE

Many of the processes inferred from Table 3 can be explained by work developed in international trade, particularly Raymond Vernon's product cycle model. There are many parallels between inter-regional shifts in economic activity and those taking place at the international scale. Indeed regional economics has taken many of its best features from international economics. Briefly, the product cycle model is based on the premise that a product evolves through three distinct stages in its life cycle: an innovation stage where a new product is manufactured in the home region and introduced in a new market

area by exports; a growth stage where external demand, both inter-regional and international, expands to a point where direct investment in production facilities becomes feasible and when process technology can be transferred; and a standardization phase when production may shift to low-cost locations. This model is a derivation of earlier work on industrial growth (industries being the aggregation of various products) which includes Kuznets' S-shaped curve of industrial growth in the 1930's.

This product cycle model has a geographical dimension (Figure 2) once it is recognized that the stages have different locational requirements. The innovation stage which needs a high input of R & D is usually carried out in high technology areas, i.e., near or in large urban complexes. The standardization phase on the other hand favors low cost locations, typically peripheral areas where labor costs are cheap. This part of the product cycle explains the early loss of production workers from the Manufacturing Belt as seen in Table 3. This product cycle model implies that as decentralization of production accumulates, external economies of scale (i.e., agglomeration economies, service infrastructure and local linkages) can build up. Also, regional demand in the receiving region (region II) can grow to a critical threshold where industrial growth takes off on its own through a seedbed or generator effect—large companies spawning small companies, particularly in high technology sectors. Aiding the growth is the immigration of entrepreneurs. The location of the standardization phase of production (region II in Figure 2) can evolve as a locus of innovations in a subsequent period, (t+1). This is particularly the case since small companies spawned in the new growth regions tend to be relatively more productive than large companies in the generation of innovation (National Science Board, 1977).

FIGURE 2.—Spatial manifestation of product cycle over time.



Traditionally the Manufacturing Belt has served as the seedbed of growth of the American manufacturing system (Perloff and Wingo, 1961). As recently argued by Norton and Rees (1979), however, the diffusion of technology to the more peripheral areas of the United States means that the innovation potential of the Manufacturing Belt has been eroded and that of the periphery has been enhanced. A shift-share analysis carried out over the 1972–76 period shows that portion of economic change due to a region's share of fast and slow growing industries (known as the mix effect) and the amount of change attributed to regional industries growing at rates different from their national counterparts (the competitive effect). The negative mix effect from the Manufacturing Belt implies that the region is now specializing in nationally declining industries, whereas the positive mix effect of the peripheral areas shows that they now have a greater share of the growth industries. This discloses a reversal in the basic economic health of the Manufacturing Belt versus the "periphery" which had not shown up in earlier studies.

It is a moot point, however, whether 1972–1976 trends are cyclical instead of structual since the capital goods sector of the Manufacturing Belt was seriously hit by the Great Recession of 1975, and "the economies of the Northeast and the Midwest have been robust only when national growth rates have been high" (A.C.I.R., 1978, p. 30). Nonetheless, it is quite feasible that the severity of the Great Recession may prove to have been the turning point for the Manufacturing Belt, and a benchmark for continuing slow national growth. As stated in the recent regional growth study compiled by A.C.I.R. (1978, p. 38) "Continued slow national economic growth could result in the Northeast and Midwest dropping below other regions in relative economic well-being."

This product cycle interpretation of regional economic changes underway in the United States not only implies that lagging peripheral regions are catching up with the core but also implies that regions go through long cycles of growth and decline with the first regions to decline being those that were first to industrialize. This notion of a regional life cycle has its antecedents in Schumpeter's process of creative destruction where new economic structures in new regions bypass existing structures that become functionally obsolete. The position of any region on this regional S-shaped curve is the result of counterbalancing, seemingly dialectical, forces characterized by the push of *innovation* or new development to insure future adaptation on the one hand and the pull of *inertia* protecting the status quo on the other. Recently it has become popular once again for economists to think in terms of long cycles: "It should be of little surprise that the long term swings in relative economic fortune have been newly rediscovered as the Nation's aging industrial regions increasingly appear to be entering the negative phase of such cycles" (Sternlieb and Hughes, 1978). The questions to be answered are whether the regional economic changes discussed in this section will continue and whether they indeed represent long term shifts in regional roles or just short term equilibrating tendencies.

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C. Industrial Decentralization at Other Geographical Scales

These interregional shifts of industry within the United States are but one of a series of decentralization processes ongoing at various geographical scales. At least three other types of industrial mobility processes can be identified with many common elements:

1. THE INTRAURBAN OR SUBURBAN MOVEMENT

The movement of manufacturing industry from central cities to suburban areas has been occurring in various parts of the United States since early in the 20th Century though it accelerated after 1945. This process is particularly symptomatic of all the cities in the North and East, but it is also a feature of the newer cities of the South and West. The process itself has been documented well enough not to require additional attention here (Struyk and James, 1975, Vaughn, 1977). A succinct statement of the implications of this process was given by Sternlieb and Hughes (1977, p. 231): "Events once endemic to the metropolitan level, in particular employment decentralization appear to have been attenuated to new spatial scales and are now working themselves out over the entire geography of the country."

2. INTERNATIONAL INVESTMENT

Another decentralization process that has been occurring over most of this century and is closely related to the interregional shifts in economic activity is American industry's investing in production facilities abroad. This topic, with its implications for possible employment losses within the U.S. and for the transfer of technology, has been the subject of considerable scholarly attention over the last 20 years. Some of the most comprehensive studies include Vernon, (1972 and 1977), Dunning (1974), Hymer (1960), Gilpin (1975), and Wilkins (1974).

In a cogent study Gilpin (1975) argues that the proliferation of foreign direct investment from the United States is a denial of needed investment in the U.S. in the same way that portfolio investment had earlier denied the British economy. This of course assumes that if foreign direct investment had not taken place domestic investment would have. Such is not necessarily the case. Gilpin further argues that the low interindustry movement of capital in the U.S. in the 1960's (despite the rise of conglomerates) combined with cheaper production factors abroad caused companies to increase their foreign direct investment. But, he ignores the high-growth inducement of interregional capital mobility within the U.S. in the late 1960's and early 1970's. Gilpin does, however, (1975, p. 185) adequately summarize the escalation of foreign direct investment from the U.S. during the 1960's. "By 1970 the output of American overseas subsidiaries was approximately $200 billion, representing several times the amount of goods that American companies exported abroad, and the ratio of foreign sales to export continues to grow rapidly. The United States has become more of a foreign investor than exporter. Moreover, approximately 25 percent of all American exports are really intracorporate transfers."

Given the attention that will be devoted to this issue by another part of the JEC's Special Study on Economic Change [2] this topic will not be dwelled on in detail here. However, it is important to know that the economic climate for American foreign direct investment was different in the 1970's from what it was in the 1960's. The Survey of Current Business (August 1978) shows that, had it not been for a few special developments during 1977, foreign outflows would have shown a moderate decline due to:

(a) the rise in U.S. interest rates relative to those in several foreign countries, contributing to the shift from U.S. parent company financing to foreign sources;

(b) economic slowdowns in many foreign countries resulting in reduced capital requirements; and

(c) volatile exchange markets creating uncertainty among investors.

The plight of the dollar and the increase in foreign direct investment within the U.S. in recent years may herald a turning point in the United States' position as a foreign investor. A decline in the U.S. role as a foreign investor in turn may have significant implications for industrial location patterns within the U.S.

One effect this may have on industrial location patterns in the U.S. is that investors from different countries may show distinct regional preferences. This topic has not been extensively studied though data on Japanese companies serve as an example. Table 4 shows the distribution of Japanese offices in American cities for 1969 and 1972. Though numbers of offices as a measure is more appropriate when considered alongside assets and employment, a locational bias does emerge. The dominance of New York City as the core of the office industry in the U.S. stands out, and includes 21 percent of Japanese offices in the U.S. Then a western bias emerges as Los Angeles ranks second with 198 offices, San Francisco fourth with 68, and Honolulu fifth with 54 offices. The newer cities of the West and the South are

TABLE 4.—NUMBER OF OFFICES OF JAPANESE FIRMS IN UNITED STATES

	1969	1972
San Francisco	62	68
Los Angeles	140	198
Chicago	82	114
New York	342	460
Houston	25	27
Dallas	19	17
Seattle	32	43
Portland	27	25
Washington, D.C	21	28
Detroit	4	3
Pittsburgh	2	2
Cleveland	3	6
Philadelphia	4	5
Boston	2	3
Atlanta	5	4
Honolulu	29	54
Total United States	799	1,057

Source: Japanese Export Trade Organization, Chicago.

[2] International area authors and their paper titles: Robert G. Hawkins, "Multinational Firms, International Investment and the U.S. Balance of Payments"; Charles Pearson, "Adjusting to Imports of Manufactures From Developing Countries"; and Robert Z. Lawrence, "The United States Current Account: Trends and Prospects."

represented by Japanese companies, but few offices exist in the older cities of the Manufacturing Belt, e.g., Detroit, Cleveland and Buffalo. One might expect foreign investors to be highly conscious of regional growth markets within the U.S. Thus foreign investors may contribute to the shift in manufacturing from the Northeast to the Southwest.

An inventory of foreign manufacturers in the U.S. by Georgia State University in 1975 shows that foreign owned plants are concentrated (about 50 percent) in four states: New Jersey (over 200 plants), New York (over 190), Pennsylvania (90), and Illinois (80). Ranking next in concentration are California, Massachusetts, the Carolinas, Ohio, Connecticut, and Louisiana. The authors, Arpan and Ricks, perceive an expanded trend over time, a shift away from the Northeast to the South and California, though no distinct proof of this is provided. There is only limited evidence that certain countries tend to concentrate their investments in a few states and sectors. The Germans, with heavy investments in machinery, have a disproportionate number of manufacturing plants in South Carolina where they have more foreign investment than in any other place in the world. The Japanese, investing heavily in food and electronics have more plants in California than in any other state. Nearly all respondents in a survey carried out by Arpan and Ricks had made at least one foreign investment in another country before investing in the U.S., and had exported to the U.S. for several years prior to making their investment. The vast majority of firms established themselves by creating new companies rather than by acquiring existing ones. This may be surprising given the image that foreign firms have of entering by acquisitions.

Not much is known about the activities of foreign manufacturers in the U.S. which makes it an important area for research if the trend continues as expected. This increased flow of "reverse investments" to the U.S. is largely predictable from economic theory. Much of this investment is defensive and can be explained by oligopoly theory, i.e., the large flows of foreign investment from the U.S. by firms in oligopolistic sectors eventually was bound to be reacted to by oligopolistic firms from other countries. This, together with the recent dollar slump that resulted, for example, in the London Economist's pronouncement "American companies going cheap this Christmas" (December 1977), makes the non-American challenge an increasing one.

Recently, Lawrence Franko (1978) stated that the U.S. dominance of multinationals was at its peak in 1968 and was bound to decline in the new slow-growth economic order of the 1970's. He makes a cogent point when he states: "Whatever else the quadrupling of oil prices by OPEC did, it gave a tremendous boost to the demand for energy-saving products and processes, and resource-short Europe and Japan had them first. Innovations in the U.S. have historically been very biased toward labor saving, convenience products, and processes which are also energy and material intensive . . . continental Europe in particular has had to cope a lot longer than the U.S. with scarce resources" (Franko 1978, p. 98). As a consoling factor he also states that this new order among multinationals may also mean more acceptance of American companies abroad. "A France with few major direct investments in the U.S. in the early 1960's would be much more restrictive against U.S. investments in France than can today's France, which has a good many American subsidiaries . . . who may themselves have a French Connection." In retrospect therefore, this chang-

ing pattern among foreign investors both here and abroad has the potential of having considerable impact on the changing industrial location pattern within the United States.

3. NONMETROPOLITAN INDUSTRIAL GROWTH

A final decentralizing process involving manufacturers concerns the "sudden boom" of nonmetropolitan areas. In many ways this can be regarded as an extension of the suburbanization process into small and nonmetropolitan areas close to large urbanized growth centers. This process only began to receive attention, however, in the mid-1970's (prior to that time—and after the work of Calvin Beale, Peter Morrison and others—the focus had been on population growth rather than on industrial development); yet, since its discovery, a plethora of studies has appeared. This is largely because the demographic and economic development processes in rural areas have been monitored fairly closely by the Economic Research Service of the U.S. Department of Agriculture.

Perhaps Irving Kristol summed up the process best in perceiving a trend toward "an urban civilization without cities" where nonmetropolitan areas have the technological capability of being functionally and culturally metropolitan. Alonzo also put the process into perspective. While using data only for the 1975–76 period, Alonso reveals that the absolute numbers show a positive balance of migration toward nonmetropolitan areas, but the rates of movement are still in the other direction. "In 1975–76 1.8 percent of the metropolitan population moved to nonmetropolitan areas while 3 percent of the nonmetropolitan population moved into metropolitan areas, i.e., the chances that an individual will move from a nonmetropolitan to a metropolitan area are still 1.7 times as high as his chances for the reverse move" (Alonso 1978). On the whole then, the metroplitanization of the population is still higher than that of demetropolitanization. Calvin Beale, who has taken probably the most comprehensive look at nonmetropolitan growth since 1970, has shown that "Both adjacent and non-adjacent classes of nonmetropolitan counties have had a migration reversal. The force of the reversal has actually been stronger in the more remote nonadjacent class than it has in the adjacent group" (Beale, 1976, p. 954).

Beale shows that the nonmetropolitan counties showing the most rapid growth are retirement counties, through many of these counties have other sources of growth: State colleges, recreation businesses, and manufacturing. He sees the decentralization of manufacturing as one of the major economic thrusts behind nonmetropolitan growth in the 1960's. "Manufacturing comprised 50 percent of all growth in nonmetropolitan employment in the 1960's. The subsequent slackening of manufacturing and the surge in trade and services in other sectors except government has seen manufacturing jobs to amount to only 3 percent of nonmetropolitan job growth from 1970 to 1976" (Beale, 1976, p. 955). The work of Peter Morrison generally concurs with this. "Previous growth advantages associated with manufacturing and government related activity appeared to have diminished in the 1970's and retirement and recreation have emerged as important growth-inducing activities in the nonmetropolitan sector" (McCarthy and Morrison 1978, p. 46).

Though the role of manufacturing activity as the economic impetus behind the growth of nonmetropolitan areas may have declined in the early 1970's compared to the 1960's, it should be borne in mind that the 1970–1975 period was cyclically unusual compared to the 1960's. It is also worthy of note that the factors explaining the decentralization of manufacturing activity at the metropolitan and nonmetropolitan scale are similar to those that explain the decentralization of manufacturing at the interregional scale: the use of underemployed female labor, lower wage rates, better work attitudes, less unionization, availability of cheap land, and improved transportation. Erickson and Leinbach (1978) have proposed that the filtering down of industry from metropolitan to nonmetropolitan areas can be explained by the product cycle model in a similar way in which it was used earlier in this paper at the interregional scale. In testing their filtering down hypothesis in nonmetropolitan areas of Kentucky, New Mexico, Vermont, and Wisconsin they show that a vast majority of the filtering down branch plants has corporate headquarters located within the Manufacturing Belt. This may be expected for Kentucky, Vermont, and Wisconsin, given their geographical proximity to the larger cities of the Manufacturing Belt. In New Mexico one may expect companies with headquarters in California and Texas to play a greater role in nonmetropolitan industrial development and this is indeed the case. But the Manufacturing Belt still houses the headquarters of 59 percent of nonmetropolitan plants in New Mexico.

In some research currently underway in north Texas (which includes Dallas/Fort Worth, one of the key growth centers of the Sunbelt), plants with headquarters in the Manufacturing Belt still account for a large proportion of manufacturing growth in small nonmetropolitan areas (Table 5). However, the significance of Dallas/Fort Worth as a leading growth center in the region is evident from Table 5 because a high proportion of plants in the rest of north Texas have their headquarters there. This indicates that Dallas/Fort Worth, Houston, and other key growth centers of the Sunbelt have reached a stage of maturity where they are generating growth from within via companies with local headquarters as opposed to nonlocal sources like the Manufacturing Belt (Rees, 1978). This in turn causes industrial spread effects into surrounding small Standard Metropolitan Statistical areas (SMSAs) or nonmetropolitan communities.

TABLE 5.—HEADQUARTERS LOCATION OF BRANCH PLANTS IN NORTH TEXAS

Headquarters location	Location of plants					
	SMSAs[1]	Percent	Cities (population 10,000+)	Percent	Cities (population 5–10,000)	Percent
New England	5	1	4	2	1	1
Middle Atlantic	62	18	27	15	7	10
East North Central	55	16	23	13	6	9
West North Central	16	5	13	7	2	3
East South Central	11	3	4	2	3	4
South Atlantic	8	2	9	5	1	1
West South Central	121	35	74	42	41	60
(Texas)	(110)	32	(66)	(38)	(38)	(56)
(Dallas/Fort Worth)	(43)	12	(29)	(16)	(16)	(24)
Mountain	7	2	1		3	4
Pacific	24	7	10	6	2	3
Foreign	4	1				
Unknown	34	10	11	6	2	3
Total branch plants	347		176		68	

[1] Standard Metropolitan Statistical Areas.

To summarize, this section has shown that at least four types of industrial decentralization processes are occurring in the United States: an international movement which may be changing its character in the 1970's, an interregional movement that is changing the economic health of the older and newer parts of the country, a nonmetropolitan movement, and continued suburbanization. Much has been written about these processes of late; and it is important to sort out the objective reality from the myths that surround them. Because they are similar processes occurring at different geographical scales, many of the causal mechanisms are common to all four. This paper has shown that market mechanisms, working through structural changes brought about by new technology, have played significant roles in these industrial decentralization processes. In the same way that market mechanisms can affect these processes so can different forms of public policy have an impact on all four geographical levels. It is the impact of public policy on these processes which provides the focus of the next section of this study.

Part II. The Role of Government Policy in Regional Economic Change in the United States

In the first part of this study, major structural changes were seen to have taken place in the American economy in the 1960's and the 1970's, and these were linked to a number of industrial decentralization tendencies occurring at different geographical scales. The major reason why concern was shown for the interregional changes, first by the news media and then in political circles, stems from the belief that the Federal Government has been the major causal element in the process of regional growth and decline. Clearly, when one region gains and another loses, political capital can be made. But much of what has been written may be the result of what some have called "Newton's Third Law of Journalism," where every overreaction leads to an equal and opposite overreaction (Franko 1978). It is quite easy to be so close to an issue that the proper perspective is lost. This is not only true of the issue under study here—the role of government in regional change—but also of the role of Federal regulation and intervention in general.

In a lecture on capitalism and democracy, the late Authur Okun, Senior Fellow of the Brookings Institution, spoke of the dangers implicit in the heated debate on government regulation. In establishing a "capitalistic democracy" the United States has to encounter the uneasy compromises provided by the capitalist ethic with its emphasis on economic efficiency through market mechanism on the one hand and the democratic ideal with its egalitarian aspirations on the other. The search for liberty and equality has resulted in irreconcilable polarities in many societies. Okun saw the blanket indictment of all government regulation and intervention as a polarization that threatens the unique balance of the American system. "Many of the government's functions in promoting and regulating activity in the market place are not controversial; indeed some are conducted so routinely that they tend to be taken for granted. . . . The worst enemies of U.S. capitalism are a handful of its ardent proponents, who prescribe fiscal monetary policies that would produce mass unemployment, regulatory policies that

would violate the legitimate interests of third parties and reforms of government programs that would provide vivid pictures of economic misery" (Okun 1978).

This debate, of course, is not a new one. It has a history as long as the American heritage itself, and so there is more reason why perspective can be lent to the issue. Neither is the issue of regional change new to the American arena. Indeed it is the dynamism of the movements from the Old World to the New, the westward expansion, the movement from the South to the North, first of blacks then of whites that created the American character. Of course, market mechanisms played their role; so did government through, for example, the railroad system in the 19th century and the Interstate system in the mid-20th century. Every government action, every company decision has a regional or geographical impact. Decisions affect people, and people live in a variety of different places. The British economist and planner, Gordon Cameron, writing on American regional change 10 years ago, interpreted developments as the result of national demand on the one hand and planned adjustments on the other. The crucial issue then becomes how explicit or implicit government policies are in their regional impact. Or, indeed, how aware are policymakers of any direct or indirect regional biases when they design policies? This leads to the importance of "ex ante" and not "ex post" policy analysis, and this in turn involves problems of classification and measurement made inherently more complex by the perpetual dynamism of regional economies and the existence of non-ceteris paribus situations.

This part of the study initially looks at government intervention in American regional economic development in its historical perspective. The 1970's are not the first time that the battle for Federal funds has surfaced in the U.S.; in many ways the current debate is merely new wine in old bottles. A series of policies (mostly at the Federal level) are assessed in the way they have a direct impact on industrial location and regional economic change: taxation policies, economic development assistance, Department of Defense procurement patterns and policies of the Environmental Protection Agency. The indirect impacts of government policies are also discussed as they bear on the regional industrial changes taking place at the geographical levels covered in Part 1.

A. The "Conspiracy Theory" Revisited

In "Four Decades of Thought on the South's Economic Problem," Clarence Danhof (1964), of the Brookings Institution, wrote of the recurring nature of the economic battles between the North and the South, and the recurring concern about the Federal role. In one of various southern strategies to gain further industrialization, the Southeastern Governor's Conference, formed in 1937, formally urged the Federal administration to decentralize the awards of defense and war contracts. Though the South has come a long way since June 1938 when Franklin Roosevelt declared the region as the Nation's "number one economic problem," the "conspiracy theory" of the North against the South raised its head throughout the first part of the 20th century. "Sectional conflict, which some heed to be inevitable, resulted in a conspiracy, deliberate or fortuitous, on the part of the North, the large national corporations, or some financial groups, with the help of the

Federal Government to thwart the South" (Danhof, 1964, p. 36). Implicit in the economic history of the South, however, has been a recognition that if the Northern states controlled the economic allocation of resources, one way to counter this was through the political process, particularly the seniority system in Congress,—the Sam Rayburns and the Lyndon Johnsons,—and the political allocation of resources.

By the 1970's the conspiracy theory was being interpreted in reverse, with the North accusing the South of obtaining preferential treatment from the Federal Government to fuel its economic growth. The "Second War between the States" of the mid-1970s led to many hurried accusations. Business Week was the first to report. "Although detailed data are unavailable, capital from the Northeast and Midwest has financed the industrial expansion of the South" (Business Week, May 17, 1976). The National Journal (26 June, 1976) then followed: "Spending for defense accounts for nearly all the Federal spending disparities among the Northeast, Midwest, South and West. The Federal Government spent $620 per capita for defense in the West, nearly triple the $210 rate of defense spending in the Midwest." This was written with blatant disregard for subcontracting data and made the erroneous assumption that states where prime contracts were allocated were also the locations where the products were made and the jobs created. More recently George Peterson and Thomas Muller of the Urban Institute (1977) made a similar though more carefully worded generalization based on a paucity of data: ". . . Federal spending for purchases of goods and services is more strongly skewed toward the rapidly growing regions of the country than are total Federal outlays. On a per capita basis, the Pacific States receive more than twice as many Federal revenues as the Great Lakes States and 80 percent more than the mid-Atlantic States. Although a detailed examination of Federal spending would be necessary to establish the point conclusively, data strongly suggest that Federal employment, goods and service acquisitions, and direct capital investment have been shaped by the same cost and profitability considerations that have influenced private sector demand for regional output." This is well phrased for who could question the choice of the private sector as a model for Federal investment. Yet without a detailed examination of Federal spending, the reliability of the claims has to be questioned. The essential point about most of these scant studies of regional Federal impacts is not just the conclusions, but how they arrived at their conclusions.

Two years later and after reams of paper on the issue, there is at least some consensus on these interregional changes and the Federal role. Jusenius and Ledebur in their EDA report, "The Southern Economic Challenge and Northern Economic Decline: A Myth in the Making," (1976) provide us with an objective perspective. Among their findings are:

(1) Even if no migration had occurred (between the North and South), the population would still have increased more rapidly in the Sunbelt South.

(2) Even with greater Federal expenditures in the South, per capita incomes in the Sunbelt-South are generally lower than those in the northern tier.

(3) In contrast to more popular beliefs, the problem of poverty is more pervasive in the South than in the North.

(4) While the Southern States are among the poorest in the country, they received less than the national average in per capita Federal Government expenditures.

(5) The Northern Tier States presently confront serious economic difficulties, but policy decisions based on the assumption that the experience of 1970–75 represents a new trend may be ill considered and counterproductive in the long run.

(6) Debates which focus on the rate of growth of the Sunbelt as a partial explanation of the economic difficulties of the Northern States are detrimental to the goal of achieving national policies that facilitate overall growth among all regions of the U.S. This final conclusion is also shared in a recent book on regional growth and decline by Weinstein and Firestine (1978).

In yet another study of regional change in the U.S., this time by the Advisory Commission on Intergovernmental Relations, August 1978, similar and additional conclusions are reached. The most important findings are:

(1) The last 50 years of economic activity and population movements have led to a growing equalization of well-being among the eight regions of the country Indeed, it is an expected postulate of neoclassical regional economics that factor mobility will lead to a convergence of regional incomes This convergence of regional welfare, has, in fact, been accompanied by substantial decentralization of economic activity away from the regions of earliest industrialization (as seen in Part I of this study).

(2) The regional shifts in economic activity have taken place without substantial disparities in regional unemployment rates. This concurs with another study by Wheaton (1978) of M.I.T. that saw very little relationship between growth rates in manufacturing employment in the SMSA's and their unemployment rate.

(3) The greatest rates of regional (convergence of per capita incomes) were realized between 1930 and 1950, and since then the rates have slowed. Indeed in the early 1970's, variations in regional growth rates have widened and rates of convergence accelerated.

(4) For the last 25 years, the economies of the Northeast and Midwest have been strong only when national growth rates have been high. Other regions continue to grow even when national growth rates are slow. This is an important conclusion for possible future regional economic change if the U.S. is to be faced with a prolonged period of slow national growth. Continued slow national growth could result in the Northeast and Midwest dropping below other regions in relative economic well-being. It also shows that macroeconomic policy is in fact regional policy.

(5) Over the last 25 years, the most rapidly growing States of the Southeast and Southwest have received substantially higher payments from the Federal Government than their residents have paid to the Federal Government in taxes and revenues. The opposite pattern is true of New England, the Mideast and Great Lakes regions. No causal connections between the growth rates and the expenditure-to-revenue ratios are shown, however. This latter statement is an important qualifier since the data on which the statement is based can still be questioned on the grounds that surpluses in certain regions may actually be spent in deficit regions. The A.C.I.R. does show, however,

that during the last 25 years differences in Federal flows of fund disparities between States have been steadily narrowed.

In an opposing study on the regional war for Federal aid, Markusen and Fastrup (1978) note that "alternative accounting of Federal Government fiscal behavior produces quite different conclusions." They show that in the case of Federal grants to State and local governments, such payments do not favor the Sunbelt. Yet this is not surprising given the variables influencing the distribution of aid when some States choose not to tax themselves and hence forego Federal aid. Similarly, it is not surprising that in a program like Social Security, funds are distributed disproportionately to areas where older people live.

In retrospect, therefore, the repetitive nature of the copnsiracy theory between major regions of the U.S. implies that the debate may subside only to become an issue once again, as long as politicians represent people in specific regions and as long as government policies inevitably have a differential regional impact. The heated debate over the last few years can be seen to have at least some areas of concensus: that regional economic disparities within the United States are indeed disappearing—an admirable situation irrespective of how it is achieved; and that the most effective form of regional policy will be to maintain a healthy national growth rate, a situation that can only seem precarious at the present time. Expert opinion still seems to differ as to what parts of the country benefit most from Federal outlays, and what parts get more than their "fair share". In most cases this can be traced back to the weakness of basic data sources and the difficulties of tracing interregional flows of revenues and expenditures in an open economy. One has to sympathize therefore with the pleas for better data sources on Federal outlays, and the need for more comprehensive methodologies to deal with the impact of Federal policies.

B. Measurement Problems Implicit in Assessing the Impact of Government Policy on Industrial and Regional Change

One of the major problems with assessing the impact of government policy generally is that it is fraught with methodological difficulties. The foremost difficulty is comparing the results of such policy. Another is the problem of measuring the costs and benefits associated with Federal regulation.

Some of the problems associated with cost-benefit and cost-effectiveness analysis have been well covered recently by Julius Allen for the Congressional Research Service (1978). On the cost side, it is usually difficult to obtain reliable aggregate data. Some of the most widely quoted studies are those by Weidenbaum, De Fina and others at Washington University, one of which was prepared for the Joint Economic Committee. When only one study is used, however, there are inherent dangers, as Allen points out. Weidenbaum and De Fina use secondary sources "based on estimates by different authorities at various times" (Allen 1978). Yet their figures are staggering. "The cost imposed on the American economy by Federal regulatory activities in 1976 totaled $66.1 billion. This estimate comprises $3.2 billion in administrative costs and $62.9 billion in compliance costs" (Weidenbaum and De Fina 1978). This represents 4 percent of the Gross National Product, $307 per person living in the United States and 18 percent of the Federal budget. Let's assume that these total estimates are

nearly perfect, that they are 99 percent correct. Then the estimates would only be off by $661 million, hardly an ominous figure. Indeed one has to share Allen's skepticism on these and other estimates. "All of these estimates appear to be unavoidably tentative and in no sense completely reliable. Furthermore, they are all estimates of gross rather than net costs of regulation, in that they do not include estimates of offsetting gains attributable to regulation" (Allen 1978, p. 20).

Some of the problems involved in measuring the impact of government policy on various regions of the country (not only of states but also of cities and counties) have been addressed recently by Fred Hines and Norman Reid of the U.S. Department of Agriculture (1977). Since the late 1960s detailed annual reports on Federal spending in small areas have been available in the Federal Outlays series. Earlier editions, according to Hines and Reid, suffered from serious deficiencies in completeness and accuracy. In 1975 program identification improved by using the system in the Catalog of Federal Domestic Assistance and in the future may help comparisons of outlays. However, there is still the problem of assessing whether the county where a Federal payment was received was the place where that money was spent, and its subsequent multiplier effect. The multiplier effect of Federal outlays will undoubtedly vary from one program to another, while research shows that the tendency of Federal dollars to migrate across regional boundaries may be high (Bahl and Warford, 1971).

There are techniques available for tracing the interregional flow of money, the most well-known being the applications of input-output analysis. Methodological refinements and shortcuts using input-output analysis have kept such academic publications as the *Journal of Regional Science* full for years. In a multiregional context, however, input-output analysis itself is fraught with methodological problems (Pollenske, 1978). A case study of the interregional financial and employment impacts of the Boeing Company by Erickson (1975) illustrates some of these problems. Boeing purchased approximately 10 percent of its total processing sector inputs from local Puget Sound region suppliers. But the strongest ties with purchases occurred in New Jersey, Connecticut, and California, specifically Hartford and Los Angeles-Long Beach with minor links to suppliers in Phoenix, Dallas, Rockford, Ill., Detroit, and Cleveland. Clearly such a complex national purchasing or linkage pattern for only one company is indicative of the measurement problems. In a similar but larger study, Allan Pred (1977) recently found that for a sample of companies with headquarters in eight metropolitan areas in the Western United States "The aggregate strength of non-local intraorganizational linkages created by their multilocational business organizations is considerable . . . and is highlighted by ties with other large metropolitan complexes." Data on intraorganizational linkages are particularly hard to come by, however, given that companies only have to report total earnings to the Securities and Exchange Commission regardless of location.

In another study by this author (Rees 1978) on the purchasing and marketing linkages of manufacturing companies in the Dallas/Fort Worth area, one of the Nation's fastest growing large urban-industrial complexes, it was found that 68 percent of the materials purchased

came from outside the metropolitan area and 60 percent came from outside the West South Central census region that includes Texas, Louisiana, Oklahoma and Arkansas (Table 6). Over 30 percent of inputs in fact came from the Manufacturing Belt, showing once again a high degree of interregional interdependence with the Manufacturing Belt. Furthermore, when the backward linkage (purchasing) patterns of one large firm, a defense contractor, were examined, large temporal fluctuations were evident (Table 7): In two years, on total purchases between $237 million and $393 million, procurement from California increased from 13 to 42 percent, while procurements from Connecticut declined from 28 to 5 percent. Numerous job changes were involved.

TABLE 6.—BACKWARD LINKS BY PRODUCT TYPE (PERCENT)—S.I.C.

	34 (N=5)	35 (15)	36 (18)	37 (7)	Mean (percent) procurement (N=45)
New England		3.1	13.3	3.0	6.5
Mid Atlantic	22.0	7.9	12.1	12.4	12.5
East North Central	21.6	18.4	11.3	14.0	15.2
West North Central	9.4	1.6	2.3	2.6	3.4
South Atlantic	1.0	1.3	1.9	1.3	1.7
East South Central	2.0	4.6	.2	2.1	2.2
West South Central	21.4	55.0	34.7	37.9	40.1
(Dallas-Fort Worth)	19.4	37.7	31.3	24.9	32.4
Mountain			1.3	.6	.6
Pacific	11.6	5.7	20.1	22.1	14.7
Foreign	11.0	2.0	4.7	3.3	4.3

Source: Rees, 1978.

TABLE 7.—BACKWARD LINKAGE PATTERNS OF 1 LARGE DEFENSE CONTRACTOR OVER TIME

State	Percent procurement (dollars)		
	$372M 1975	$393M 1974	$237M 1973
New Hampshire	0.1	0.1	0.1
Vermont	.7	1.2	8.0
Massachusetts	.8	1.5	.5
Rhode Island	.01	.01	.02
Connecticut	1.1	5.1	28.0
New York	1.5	2.8	2.0
New Jersey	1.3	2.1	2.1
Pennsylvania	.7	1.5	.6
Ohio	5.3	9.2	5.1
Indiana	2.4	4.8	3.2
Illinois	.5	1.3	.9
Michigan	.8	1.5	1.5
Wisconsin	.5	1.1	.9
Minnesota	.2	.9	.2
Iowa	.3	.7	.4
Missouri	.5	1.3	.7
Kansas	3.2	4.8	3.4
Delaware	.003	.001	.007
Maryland	.3	.3	.3
Virginia	.01	.02	.01
North Carolina	2.1	.2	.2
Georgia	.1	.1	.1
Florida	.2	.5	.2
Tennessee	.1	.1	.01
Alabama	.2	.03	.01
Arkansas	.1	.3	.3
Oklahoma	.1	1.5	.3
Texas	30.5	36.6	28.2
Colorado	.8	.4	.1
New Mexico	.01	.01	.003
Arizona	1.0	2.6	.9
Utah	1.4	1.0	.04
Washington	1.5	.7	.04
Oregon	.02	.14	.08
California	42.0	15.0	12.0

Source: Rees, 1978.

These studies, together, highlight the interregional integration implicit in the American industrial sector, a pattern that can change significantly over time and add to the complexities of monitoring money flows and employment changes associated with such changes. Therefore, before the regional impacts, over time, of Federal, State and local government spending policies can be effectively monitored, more must be devoted to basic research issues involving data sources and analysis-evaluation methodologies.

C. The "Direct Impact" of Selected Government Policy on Industrial Location and Regional Development

Certain government policies have an explicit, direct impact on industrial location and regional development. These include taxation policy which affects production costs and defense procurement policy which affects the economic health of many manufacturers in various parts of the country, particularly if wholly or partially dependent on government contracts. The direct policies also include the efforts of the Economic Development Administration which was specifically established to aid distressed areas, and policies of the Environmental Protection Agency which have a major impact on the production costs of certain manufacturing sectors in specific regions. Other government policies have an implicit or indirect impact on industrial location and regional change, and by definition these impacts are more difficult to trace. In this section, conclusions are drawn on the direct impact that certain government policies have on industrial location, and assessments will also be made of the policies that have an indirect effects.

1. TAXATION POLICY AND INDUSTRIAL LOCATION

Most research on industrial location over the past 15 years has found little evidence that manufacturing industry's locational choices in the U.S. are influenced to any significant degree by taxation policy, either Federal, State or local. In a major synthesizing work on industrial location, David Smith states: "Studies that have attempted to measure the correlation between state and local taxes on the one hand, and industrial growth rates on the other conclude that tax levels are not important determinants of industrial location . . . variations in tax costs are roughly one-tenth of the variations in the cost of labor, marketing and transportation" (1971, p. 53). But as the A.C.I.R. reminded us in 1967: "The relative importance of the tax differential factor in industrial location decisions appears to increase as the location process narrows down to a particular jurisdiction within a gereral region" (1967, p. 78).

Yet, when one looks around the country, State and local governments seem to suggest that they can influence industrial location development in their regions. "This is evidenced by the fact that 45 states offer tax-free state and local revenue bond financing to industry; 29 states offer other types of low interest loans; 25 states do not collect sales tax on newly purchased industrial equipment; 38 do not levy inventory taxes on goods in transit; virtually all states have industrial development agencies; and many state and local govern-

ments offer tax credits, abatements, and rapid depreciation to encourage new investment in plants and equipment" (Weinstein and Firestine 1978, p. 134). The question then becomes why? Presumably because they perceive the taxation issue to be an integral part of their overall image to industry, their 'business climate'.

A recent study of interstate competition for industry conducted by the A.C.I.R. (1978) throws further light on the issue as it currently exists:

(1) They found that state enactment of industrial incentives increased sharply in the 1960's and remained at a high level in the 1970's.

(2) While much of the publicity over competition for industry focuses on the Snowbelt versus the Sunbelt, states within the Snowbelt frequently compete with each other.

(3) Births of single plant firms occurred more frequently between 1969 and 1976 in states with low taxes than in states with high taxes. But the northeastern States are far from stagnant in terms of manufacturing 'births', so causality cannot be inferred from the association between taxes and manufacturing births.

(4) States without a personal income tax enjoyed better economic health than did states with personal income tax. Again, causality cannot be established, but the data suggest that high personal taxes in Northern States force up salary scales for executive and managerial personnel, the kind of people most influential in making industrial location decisions. From this the A.C.I.R. concludes that while the impact of business taxes on industrial location got the most attention in past studies, State personal income tax appears to be gaining in importance as a factor influencing industrial location decisions. Thus they pose a controverisal question for consideration (A.C.I.R., 1978, 24): "Should the Federal government abandon its present policy of neutrality and adopt in its stead a pro-State personal income tax approach that would call for a Federal incentive to encourage non-income tax states to join the income tax ranks?" They provide succinct arguments both pro and con on the issue, but given the current mood of fiscal conservatism in the country, tax enactment would hardly be given serious consideration.

The relative importance of personal income and corporate taxes as a factor in industrial location decisionmaking has been given further credibility in a comprehensive study of new firm location by Dennis Carlton (1978) of the University of Chicago. Using national Dun and Bradstreet data on firm births around the country between 1967 and 1975, Carlton's econometric analyses do not support the view that State income and corporate taxes are important negative deterrents for new business location. Neither do the findings show taxes to be a significant determinant of new births. Wages and agglomeration economies were still seen as two of the most important factors influencing industrial location, while no evidence was found that 'favorable business climates' alone could stimulate new locational activity. These recent studies show taxation policies to be relatively unimportant as determinants of industrial location, though they seem to occupy a relatively more important position than they used to, particularly in the case of personal income taxes.

2. ECONOMIC DEVELOPMENT ASSISTANCE

Another way by which government policy can influence industrial location is through economic development assistance to a specific geographical area. Historically, however, the U.S. Government has assigned fairly low priority to the issue of economic development assistance, particularly in comparison with other western countries (see Hansen, 1974). This is not the place to review and assess the role of the Federal Government in economic development. This has been done most comprehensively by John Cumberland in his book on regional development in the U.S., as well as by other authors, e.g., Hansen, 1974, Estall, 1977, Miernyk, 1978. Yet it seems appropriate to provide some comment on adopted approaches as they affect or do not affect the location of industry in different parts of the U.S.

Despite the flirtation of the U.S. Government with regional development legislation, such as the TVA of the 1930's and the efforts of Senator Douglas in the 1950's, real interest in aiding depressed areas within the U.S. was not shown at the Federal level until the early 1960's. The Area Redevelopment Act of 1961 and the Accelerated Public Works Act of 1962 provided piecemeal assistance for industrial development and public facilities in stagnating communities. The major regional development legislantion was not passed until 1965 with the Appalachian Regional Development Act and the Public Works and Economic Development Act. The former set up the Appalachian Regional Commission to coordinate joint Federal-State development efforts in parts of 13 states. The Economic Development Administration was also created at this time, as well as a host of Appalachian-style Regional Commissions in other depressed parts of the country: In the Ozarks, the Four Corners, New England, South Coastal Plains, and the upper Great Lakes.

Within Appalachia, as later on within EDA itself, most investment funds went to dominant "'Growth Centers'—an area or city of sufficient size and potential to foster the economic growth activities necessary to alleviate the distress of redevelopment areas within the district. It should have sufficient population resources, public facilities, industry and commercial services to ensure that its development can become relatively self-sustaining." This growth center policy faced many difficulties and thus found many critics. One major difficulty was choosing acceptable criteria to define "growth potential," so that "local political pressure resulted in a plethora of growth centers" (over 260 by 1975, according to Estall, 1977). Another focal part of the debate included the size of center that could influence its hinterland through Myrdal-style "spread" effects. Furthermore "the dilemma of where best to allocate funds was made no easier by lack of a clear understanding of what best to spend the money on" (Estall, 1977, p. 347).

Emphasis on encouraging industrial development in such growth centers was lost somewhere in the midst of the debate between investment in infrastructure and developing human resources. As Miernyk (1978, p. 4) reminds us: "It is much safer to go the public works route where a complete failure is difficult to define. . . . If public works stimulate economic development well and good. If they don't, local residents still have the benefits of improved amenities. . . ." On the other hand, if investment is made in industrial development and the

entire venture collapses, the failure becomes much more conspicuous. As a result, there has always been a bias against direct incentives to industry in the U.S., in contrast to regional development policy in other western countries where such policies have been more elaborate, included more direct investment incentives to industry and generally experienced more beneficial results. (Yet the cautionary tales of policies adopted in other countries also have to be noted, as is done in the last part of this section). A 1972 evaluation of EDA projects sums up the issue: "Traditional projects which aim at directly creating jobs through the location of industry cannot fully meet the development needs of some communities" (EDA, 1972, p. 66). The provision of a theatre, a cultural center or a parking facility could, it was argued, produce new business enterprise far more quickly than "traditional" public works projects. As a result, only 13 percent of EDA's development budget as of March 31, 1978 was used to make business development loans.

The objective of the EDA Act then was to invest in public works in particular, and business loans and planning assistance generally—while major human resource programs like labor training, health, education, welfare were the prerogative of other Federal agencies. The broad objective of the EDA was to take work to the workers, as had been European regional policy for 30 years. The provision of infrastructure would—it was hoped—encourage needed investment by the private sector. But that had also been the objective of the Autostrada Del Sole, linking southern Italy to the north, which resulted in very little decentralization of industry to the south. The assumption that investment in public works projects would ensures industrial development has been found to be a dangerous and fallacious one in many countries, today.

Without delving any deeper into the pros and cons of EDA, it is clear from the many sources which exist that, "The record of achievement under the 1965 Act has clearly been mixed and experience has led to no certainty that programmes of these kinds can achieve a great deal in a country such as the United States" (Estall, 1977, p. 36). Despite the "new regionalism" of the 1970's, the same low priority is assigned to economic development assistance in the U.S. in the 1970's as was the case in the past. "In terms of current 1972 dollars, the 1966 appropriations was (sic) slightly over $433 million, by 1975 appropriations had dropped to $341 million in real terms. In that year appropriations amounted to approximately one-fiftieth of one percent of the GNP was a little over 1/10 of one percent of total Federal outlays" (Jusenius and Ledebur 1977, p. 48). It is true that regional problems may only be manifestations of larger national problems. But unless these problems are monitored and alleviated at the regional level, there will always be a "regional problem" where certain people in certian places will be at a disadvantage in the United States.

3. DEFENSE PROCUREMENT POLICY

One of the major topics of contention in the recent debate on regional change in the United States is the differential effect of Federal procurement policy, specifically involving national defense. Defense procurement, it has been alleged, is biased against the northeastern part of the country. A report by the Coalition of Northeastern Governors and the Norteast Midwest Research Institute found "The 16

States of the Northeast and Midwest have lost a disproportionate share of the defense dollar since the 1950's and now receive a lower level of military expenditure than any other area of the country. The pattern of declining defense expenditures has increased unemployment in the 16-state study area, exacerbating economic problems while the shift of expenditures .to other areas has helped fuel those areas' economic boom".

Again, however, this is not the first time that the impact of defense purchases on regional growth has been the subject of debate in the United States. It was the subject of considerable academic study by Roger Bolton, Walter Isard, Gerald Karaska, Charles Tiebout, Wassily Leontief, and others in the 1960's. The Leontief study used his now famous input-output approach to simulate the direct and indirect effects of a defense cutback in various parts of the United States. His results showed that certain Western States, Colorado, New Mexico, and California in particular would be hard hit, together with states on the east coast. More recently, Bezdek (1975) carried out a similar study of the projected regional and occupational shifts in defense spending to 1980. He found that, for the Nation as a whole, decreases in defense spending would likely increase aggregated employment, but again regional variations would be great. Using an admittedly rigid input-output model where he assumed changes in national output would be distributed proportionately across all industries without any allowance for regional multiplier effects, he shows that a decrease in defense spending (assuming it was transferred to domestic programs) would tend to increase total employment within the traditional Manufacturing Belt. The western States on the other hand, including California and Texas, would suffer the greatest employment decreases—though new England and the South generally would not be very sensitive to changes in defense spending. These types of studies are important from a policy perspective because they highlight the dependence of certain regions on defense spending and provide policymakers with a preview of the impacts of policy changes on specific regions.

Other studies that have played a role in the current debate on regional defense expenditures lacked the methodological rigor or even the proper concern for data before making their recommendations. The major data problem in many of these studies, particularly those using Federal Outlays, is the assumption that states which had received prime contracts were also the locations where all the work was performed. Back in the early 1960's Tiebout and others showed that roughly 50 percent of a defense prime contract was subcontracted, in many cases out of State. One source of information on subcontracting that has not been used by the studies reviewed for this paper is the Bureau of Census' annual survey of defense oriented manufacturing companies (Current Industrial Reports: Shipment of Defense Oriented Industries). State data have been reported since 1965 on sub as well as prime contract work. A comparison of these data by Martin Holmer (1978) of HEW with CSA Federal Outlays data indicated that the CSA data "understate the fraction of direct

Federal expenditures from military procurement going to states in the Northeast, North Central, and West census regions and substantially overestimate the fraction of military procurements going to states in the Southern census region." To confirm or contradict this important finding, data on the shipments of defense oriented industries by sub as well as prime contractor were examined for selected years. The findings are shown in Tables 8 through 12.

TABLE 8.—GOVERNMENT CONTRACTS BY VALUE OF SHIPMENT PER REGION, 1965, 1973, 1976

[Amounts in millions of dollars]

Region	1965		1973		1976	
	Amount	Percent of United States	Amount	Percent of United States	Amount	Percent of United States
Manufacturing Belt		41.7		37.4		37.3
New England	$2,985.2	10.4	$3,258.6	10.8	$5,192.7	11.8
Middle Atlantic	5,488.4	19.1	4,284.0	14.2	5,968.7	13.6
East North Central	3,504.1	12.2	3,740.7	12.4	5,213.8	11.9
Periphery		26.5		29.1		28.7
West North Central	2,102.2	7.4	2,361.0	7.9	3,604.5	8.2
South Atlantic	2,642.3	9.2	3,032.5	10.1	3,712.0	8.4
East South Central	841.8	2.9	1,274.5	4.2	1,960.9	4.5
West South Central	1,997.9	7.0	2,083.6	6.9	3,332.0	7.6
Other:						
Mountain	892.6	3.1	1,132.4	3.8	1,676.1	3.8
Pacific	8,306.4	28.9	8,911.6	29.6	13,351.0	30.3
United States	28,758.9	100.0	30,079.0	100.0	44,008.8	100.0

Source: Current Industrial Reports: Shipments of Defense Oriented Industries.

The years chosen for study were 1965 when the data were first available, 1969 the height of the Vietnam War, 1973 when the defense budget had been cut as a proportion of the GNP and 1976 the latest available data. The data from the 1960's therefore include an era when defense spending was at its highest while the data from the 1970's reflect defense cutbacks that may have had a regional impact. The data are based on a large sample of companies in 94 industries that undertake government contracts and account for 80 to 90 percent of all Federal procurement. The results are aggregated at the Census region level, with the three regions making up the Manufacturing Belt (the Northeast, Mid-Atlantic, and East North-Central Regions) corresponding to the definition used in the first part of this study. The definition of the periphery used initially in this study is disaggregated here to isolate the impact of the Pacific region, particularly California, on the national pattern of defense spending. The vast but relatively unimportant defense-oriented Mountain region is excluded so that the Periphery corresponds only with the South census and the West North Central regions.

One would expect the Manufacturing Belt to receive a larger absolute amount of government contract work than the Periphery either in terms of employment or value of shipments. There is a greater absolute level of manufacturing activity in the three regions of the Manufacturing Belt than in the four regions of the Periphery as defined here. The value of shipments of government contracts, mostly to the

Department of Defense (DOD), but also to the Energy Research and Development Administration (ERDA), and to the National Aeronautics and Space Administration (NASA) is broken down by region for selected years in Table 8. It shows that in 1965 nearly 42 percent of all government contracting was carried out in the Manufacturing Belt, 27 percent in the four census regions of the Periphery, and 29 percent in the Pacific census region alone. By the mid-1970's the proportion of government contracting in the Manufacturing Belt was down to 37 percent while the Periphery contributed 29 percent and the Pacific region stayed constant at the high rate of 30 percent. The image of the Pacific region, particularly California, as the largest government contractor in the Nation is clearly evident from Table 8. The Manufacturing Belt as expected received a greater proportion of government contracts than the Periphery throughout the 1960's and 1970's.

When the same data are examined in a different light, a different pattern emerges (Tables 9 and 10). From Tables 9 and 10 it can be seen that government employment as a proportion of total employment in the defense oriented industries went from 34 to 20 percent between 1965–76. In addition, the value of government shipments as a percent of total dropped from 27 to 14 percent over the same time period. Table 9 shows that over this 11-year period employees on government contracts as a proportion of total employment in these defense oriented industries was consistently higher in the peripheral regions than in the Manufacturing Belt, though the Pacific region once again displayed the largest proportion of government employees. Table 10 shows value-of-shipments data which reflect a similar trend. An important characteristic here, however, is the lesser differential between the relative amount of government-oriented shipments that originate from the Manufacturing Belt compared to the peripheral States. From 1965 to 1973 the government-oriented manufacturers in the Periphery shipped a relatively higher proportion of total shipments to government sources, but by 1976 the data show a slight reversal. Whether such a reversal continues or is just an anomally must await further analysis.

TABLE 9.—GOVERNMENT EMPLOYMENT AS A PERCENT OF TOTAL EMPLOYMENT PER REGION

Region	1965	1969	1973	1976
Manufacturing Belt	26.3	26.5	17.1	17.3
New England	35.7	35.4	25.4	25.7
Middle Atlantic	29.0	26.9	17.3	18.0
East North Central	14.2	17.2	8.7	8.1
Periphery	39.2	42.2	26.1	22.3
West North Central	38.7	41.7	25.2	22.7
South Atlantic	46.4	50.9	33.9	24.4
East South Central	37.2	33.7	23.0	25.1
West South Central	34.6	42.5	22.4	16.8
Other:				
Mountain	51.0	38.8	27.9	25.6
Pacific	63.9	49.6	41.4	36.9
United States	33.9	33.5	22.2	20.4

Source: Current Industrial Reports.

Tables 11 and 12 show the proportions of government shipemnts allocated to prime and subcontracts by region over the 1965 to 1976 period. The Manufacturing Belt consistently reveived more prime contract awards compared to the Periphery, though the gap between

TABLE 10.—VALUE OF GOVERNMENT SHIPMENTS AS A PERCENT OF TOTAL SHIPMENTS PER REGION

Region	1965	1969	1973	1976
Manufacturing Belt	23.1	24.0	12.5	14.2
New England	33.0	33.7	16.7	24.4
Middle Atlantic	24.1	24.2	12.8	11.6
East North Central	12.1	14.2	8.0	6.7
Periphery	29.8	31.5	17.1	13.5
West North Central	33.3	32.7	19.4	18.0
South Atlantic	42.5	41.4	23.3	16.3
East South Central	25.9	25.1	16.0	13.2
West South Central	17.4	26.8	9.5	6.3
Other:				
Mountain	38.7	30.8	22.6	18.0
Pacific	53.7	42.2	33.7	27.8
United States	27.2	17.4	16.7	13.8

Source: Current Industrial Reports.

the two regions decreased to within 2 percentage points by 1976. The largest single receiver of prime contracts throughout the period was the Pacific census region, once again. Table 12 is more significant for the purposes of this paper since it shows the consistent do minance of the Manufacturing Belt relative to the Periphery as the location of subcontracting work carried out for the prime contractors. The Manufacturing Belt produced over 50 percent of subcontracts in 1965 though this has fallen to 48 percent in 1976. The Periphery only accounted for 18 to 22 percent of subcontracting work over the 1965–76 period, an amount substantially less than that carried out in the Pacific region. The inference that can be drawn from Table 12 is that many of the prime contracts let in the Periphery are subcontracted to the companies in the Manufacturing Belt. It tends to confirm the pattern of interregional industrial linkages between key growth centers of the Southwest and the more established manufacturing areas of the country as suggested by Tables 6 and 7. The latter is based on research carried out in the Dallas/Fort Worth area (the second largest SMSA, responsible for government shipments in 1976). It also confirms the fallacy of assuming that the location of prime contract work is also the location of subcontracts for the Federal Government. This section also shows that census data, the most reliable available, do not substantiate the accusation that states of the South and Southwest obtain a disproportionate share of Federal defense procurement.

TABLE 11.—REGIONS' SHARE OF PRIME CONTRACT AWARDS IN 1965, 1973, 1976

[Amounts in millions of dollars]

Region	1965		1973		1976	
	Amount	Percent of United States	Amount	Percent of United States	Amount	Percent of United States
Manufacturing Belt		38.4		34.9		33.7
New England	$2,113.0	9.9	$2,438.2	10.5	$3,837.3	11.7
Middle Atlantic	3,900.1	18.2	2,987.1	12.8	4,029.7	12.3
East North Central	2,192.1	10.3	2,700.6	11.6	3,172.7	9.7
Periphery		29.1		31.3		31.8
West North Central	1,681.6	7.9	2,082.5	9.0	3,012.3	9.2
South Atlantic	2,196.7	10.3	2,343.2	10.1	2,982.7	9.1
East South Central	661.7	3.1	1,090.8	4.7	1,697.5	5.2
West South Central	1,676.7	7.8	1,737.8	7.5	2,723.8	8.3
Other:						
Mountain	639.7	3.0	794.2	3.4	1,170.1	3.6
Pacific	6,325.1	29.6	7,097.1	30.5	10,138.9	30.9
United States	21,386.7	100.0	23,271.3	100.0	32,764.9	100.0

Source: U.S. Current Industrial Reports.

TABLE 12.—REGIONS SHARE OF SUBCONTRACTS IN 1965, 1973, 1976

[Amounts in millions of dollars]

Region	1965		1973		1976	
	Amount	Percent of United States	Amount	Percent of United States	Amount	Percent of United States
Manufacturing Belt		51.1		46.5		47.5
New England	$872.2	11.8	$820.5	12.1	$1,355.6	12.1
Middle Atlantic	1,588.3	21.5	1,296.9	19.1	1,934.1	17.2
East North Central	1,312.0	17.8	1,040.1	15.3	2,041.1	18.2
Periphery		18.5		22.0		19.5
West North Central	438.6	6.0	278.5	4.1	592.2	5.3
South Atlantic	445.6	6.0	689.3	10.1	729.3	6.5
East South Central	180.1	2.4	183.7	2.7	263.5	2.3
West South Central	301.2	4.1	345.8	5.1	608.2	5.4
Other:						
Mountain	252.9	3.4	338.2	5.0	506.0	4.5
Pacific	1,982.3	26.9	1,814.5	26.7	3,212.1	28.6
United States	7,373.8	100.0	6,807.5	100.0	11,243.8	100.0

Source: Current Industrial Reports.

4. THE IMPACT OF ENVIRONMENTAL PROTECTION POLICY

The enactment of the National Environmental Policy Act (NEPA) in 1969 and the establishment of the Environmental Protection Agency (EPA) epitomize the new kind of "social" legislation that has borne the brunt of the attack on government regulation in recent years. Environmental protection in the United States also epitomizes a form of reactive policymaking or "government by crises" when the brakes have to be applied harshly after a century of seemingly reckless driving. Yet in many respects it is also a subject area which epitomizes the kind of monitoring and impact analysis which is needed in other areas of policy. The Bureau of Economic Analysis (BEA), the Bureau of Census as well as the EPA itself are agencies that already monitor the structural and regional impact of environmental protection requirements, though data bases were only recently developed.

Such careful monitoring is a necessity, however, since EPA policy has the potential of having a greater direct effect on the location of industry in the United States than any other form of policy. When Weidenbaum and DeFina (1978) estimated the total cost of administering and complying with Federal regulations at $66 billion in 1976, regulations pertaining to energy and the environment were the largest cost sector at $8.4 billion, after industry-specific regulations. Total administrative and compliance costs of EPA were $8.2 billion or 12 percent of the total national estimates. The ratio of compliance to administrative costs for government regulation as a whole was 19.7 while the EPA ratio was 18.7. Therefore, EPA compliance cost estimates of $7.8 billion were not out of proportion with other compliance estimates. Yet $7.8 billion is a large amount of capital investment in what many still regard as unproductive capacity, considering that most of these compliance costs were for plant and equipment necessary to meet Federal standards and that total new capital expenditure by manufacturers in 1976 was only $40.5 billion. Clearly many policymakers are concerned that the cost of complying with environmental regulations will result in inflationary price increases, particularly in a number of basic industries. Yet, it has to be borne

in mind that this is one area where costs are easier to define than benefits.

Allen (1978) reminds us in his review of environmental controls that one of the limitations of studies on the costs of environmental regulation is that they are based on computing added costs to existing manufacturing facilities, and do not take into account how such regulations may change the way in which the manufacturing process is conducted or how manufacturers adapt to other forms of production. In addition, Robert Leone (1978) suggests that major shifts in the competitive advantage of various industries may result from added costs. Shortrun costs may put small firms out of business and thus make an industry more oligopolistic in the long run, which in turn has implications for the antitrust policies of the (FTC) Federal Trade Commission. Leone further suggests that the costs of the EPA may not have been accurately perceived when the legislation was passed. "If it is easy for legislators to pass regulations, it is far from easy to accommodate adequately the complex and indirect effects of these regulations in the policymaking process" (Leone, 1978, p. 63). But given the unstable environment of the early 1970's, this is hardy surprising.

One area of particular concern regarding the impact of enviromental protection policy is its effect on plant closures and job losses. This topic has already received some attention, the most comprehensive study being undertaken by the National Bureau of Economic Research for the National Commission on Water Quality (NBER, 1975). Its study sorts out the myths from the realities of plant closures, showing that companies can make other adjustments, bar closure, that can affect job potentials. "Jobs can be lost even if a plant is not closed; pollution controls can force only its dirtiest units to be shut down. Conversely, the closure of some plants will intensify the operation of others and the resultant job creation would at least partially offset losses in the closed plants. Some jobs which would normally have been lost may actually be preserved for a time because of pollution controls . . . It is entirely possible that pollution controls, when compared to other stresses and strains influencing jobs prospects may be only a minor concern" (NBER, 1975 p. 1). While most industries can probably absorb the closure problem, particular sectors will be hard hit—the textile industry in particular (with specific regional impacts in New York, Massachusetts, Connecticut, New Hampshire, Georgia, and North Carolina), also paper mills and smaller iron and steel plants. Small plants are particularly vulnerable to closures. The NBER study showed that the closure rate in single plant firms was between three and nine times higher than that for branch plants which means that the larger multilocational companies have a comparative advantage over small firms. This in turn has implications again for the competitive structures of certain industries.

The NBER study also verified the popular notion that older industries in the Northeast are more susceptible to closures with the region accounting for 25 percent of jobs lost in Pennsylvania, New York, and Massachusetts, But plant closures in that region tend to be higher, in any case, for reasons apart from pollution abatement costs. This was checked from the business failure records of Dun and Bradstreet Company, a source of data that is becoming increasingly popular in industrial location studies. Table 13 shows

failure trends (defined as closure rates per 10,000 establishments) by census region for both commercial and industrial establishments for 1940, 1973, and 1976. From this it can be seen that the failure rate in the three Census regions of the Manufacturing Belt was much higher in the 1940's than it was in the 1970's the former being a time when the Manufacturing Belt was thriving and prior to any national policy for enviromental protection. Such a difference between the 1940's and 1970's failure rates was not evident in other parts of the country. Throughout the time included in Table 13, failure rates in the Manufacturing Belt were substantially higher than those of the Periphery. When the failures in the Pacific region are excluded, mean failure rates in the rest of the country, bar the Manufacturing Belt, only amounted to 35.3 in 1940, 26.1 in 1973, and 28.3 in 1976. One criticism of Table 13 is that it does not differentiate failure rates in manufacturing from other industrial enterprises, but the overall rate can be interpreted as the multiplier effects of manufacturing closures resulting in the closure of service-related enterprises. Because of the poor economic performance of the Northeast in recent years, Table 13 does confirm that the region is in a worse position to absorb displaced workers from pollution-related closures, while the better economic health of the southern regions makes it a far better prospect to handle plant closures. This only suggests that if industrial adjustments to pollution control resemble the geographical adjustments made recently, a further reshuffling of economic activity may take place among regions of the United States.

TABLE 13.—BUSINESS FAILURE TRENDS BY REGION

[Rates per 10,000 establishments]

Region	1940	1973	1976
New England	65.4	31.7	33.8
Mid Atlantic	116.0	53.1	51.5
East North Central	51.8	41.3	42.1
Manufacturing Belt	77.7	42.0	42.5
West North Central	25.8	24.0	27.4
South Atlantic	47.4	23.0	29.7
East South Central	32.7	28.6	30.1
West South Central	30.5	35.8	28.5
Mountain	40.0	19.1	26.0
Pac fic	65.0	74.1	60.6
Periphery	40.2	34.1	33.7

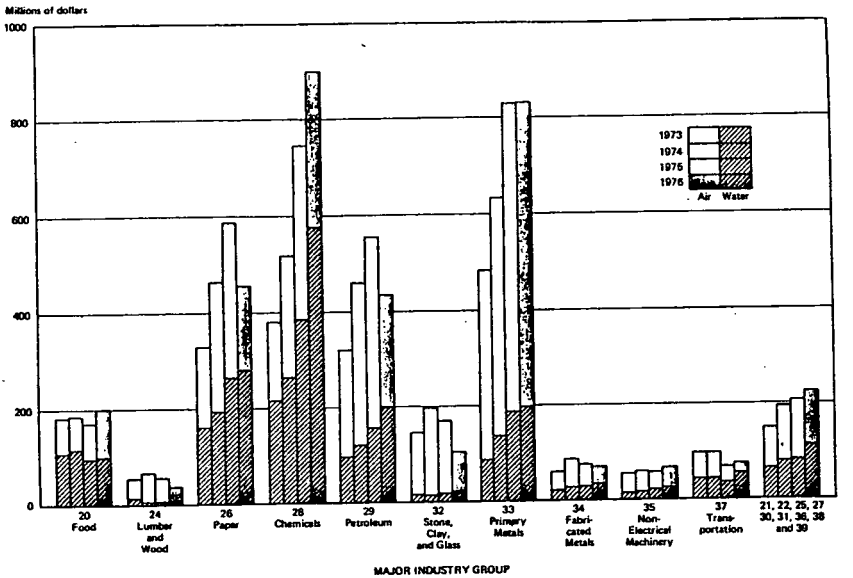
Source: Dun and Bradstreet Business Failures Records.

But contrasting views exist on the possible effects of environmental controls on patterns of industrial location in the United States. Stafford (1977) argued that these regulations may reinforce the natural tendency among manufacturers toward in-site expansion because it is probably easier to get permission to expand production in an area where firms already operate—any additional pollution would represent a marginally small increase in pollution levels—than at a new site. "It appears probable that the most stringent standards and restrictions will be placed on locales and regions at the ends of the economic development spectrum" (Stafford 1977, p. 745). Pollution controls may be difficult in areas already heavily polluted, whereas the cleanest areas have little room for industrial development, due to the requirement that no significant deterioration of the quality of the environment be permitted.

Some researchers have also suggested that the now stringent environmental laws in the U.S. may cause the further loss or decentralization of manufacturing plants to foreign locations. The arguments suggest that investment will be driven out of nations with high environmental standards that result in high costs and will be attracted to countries having low standards with low costs. Gladwin and Welles (1976) suggest that the importance of such "pollution havens" has been grossly exaggerated, given that pollution abatement costs may only be a small fraction of the total operating costs of many multinational manufacturers, that marketing factors may be the major push for foreign direct investment and that many pollution havens in less developed countries (LDC's) have a greater political risk factor associated with them. They conclude that "There is little solid evidence of international locational spillover activity, with exceptions in the cases of certain copper smelters and petroleum refiners in the U.S., chemical plants in certain European countries, and heavy industry in Japan as part of its program of industrial decentralization" (Gladwin and Welles, 1976, p. 197). Also the recent investment in the U.S. by large European multinationals such as British Petroleum, Imperial Chemicals, Ciba Geigy and others show that marketing factors were sufficiently important for these companies to decide in favor of a country with stringent pollution control standards. However, if environmental as well as other regulations increase as a cost factor in the future, we may well see the increased export of hazardous and polluting plants, particularly to less developed countries.

To further clarify any differential impact that environmental controls may have on the changing regional industrial pattern within the United States, Bureau of Census data on pollution abatement costs and expenditures were examined. These data have only been collected since 1973 so a comparison of pre-and post-EPA policies cannot be made. Figure 3 shows how pollution abatement capital expenditures hit certain manufacturing sectors severely, compared to others. Approximately 77 percent of the $3.5 billion of new capital expenditures for pollution abatement was made by plants in four major industrial groups: chemicals, primary metals, paper products, and petroleum. Within these two-digit SIC groups, specific manufacturers were sharply hit: blast furnaces and steel mills ($448 million), petroleum refining ($428 million), organic chemicals ($358 million), and paper mills ($275 million). These same industries also accounted for the largest amount of pollution abatement capital expenditures in the three previous years—though cost escalations were particularly high for the chemical industry while they dropped off in 1976 for the paper and petroleum industries. Table 14 shows industries' share of pollution abatement operating costs between 1973 and 1976, a cost which totalled $4.5 billion for the manufacturing sector in 1976. These costs include $315 million paid to government units for public sewage use and waste disposal and $945 million in labor costs. Certain industries rely more on government units for pollution abatement activites than they do on their own equipment; these include food, printing, and leather industries. But the industries paying the highest proportions of pollution abatement operating costs throughout the 1973–76 period were the same ones that had to make major capital expenditures—chemicals, primary metaos, petroleum, and paper, the last paying half the share of the others.

FIGURE 3.—Manufacturers' Air and Water Pollution Abatement Capital Expenditures, by Major Industry Group: 1973, 1974, 1975, and 1976.



Source: Current Industrial Reports.

TABLE 14.—INDUSTRIES' SHARE OF POLLUTION ABATEMENT—OPERATING COSTS

[In percent]

SIC	1973	1974	1975	1976
20 food and kindred	8.3	8.7	8.0	7.6
21 tobacco	.2	.3	.3	.3
22 textile mill	1.6	1.7	1.4	1.4
24 lumber and wood	2.5	2.1	1.9	1.8
25 furniture and fixtures	.5	.6	.5	.5
26 paper and allied	9.0	9.3	9.4	9.5
27 printing and publishing	.8	.9	.6	.6
28 chemicals and allied	20.5	20.7	21.7	21.7
29 petroleum and coal	13.8	13.5	15.4	17.1
30 rubber and miscellaneous plastics	1.7	1.9	1.8	1.8
31 leather	.2	.3	.3	.2
32 stone, clay, glass	4.8	4.9	4.7	4.2
33 primary metals	19.1	19.0	19.5	19.7
34 fabricated metals	3.5	3.5	3.0	2.7
35 machinery, nonelectric	3.0	3.0	2.7	2.6
36 electric, electronic equipment	3.6	2.9	2.7	2.4
37 transportation equipment	5.3	5.0	4.6	4.4
38 instruments and related	.9	1.1	1.1	1.0
39 miscellaneous manufacturing	.6	.7	.5	.5
All industries	100.0	100.0	100.0	100.0

Source: Current Industrial Reports: Pollution Abatement Expenditures and Costs.

When regional shares of pollution abatement capital expenditures and operating costs are examined (Tables 15 and 16), differential regional impacts are evident, but they tend to counterbalance each other for the two types of expenditures. Table 15 shows that from 1973 to 1976 the Manufacturing Belt consistently spent a lesser proportion of total new capital expenditures on pollution abatement than did the

Periphery. Whereas the Manufacturing Belt's share of these expenditures fluctuated between 35 and 37 percent, the proportion spent by industries in the Periphery increased from 42 percent in 1973 to 49 percent in 1976. Within these two macro regions, industries in the East North Central region spent the most on pollution abatement capital until 1976, when greater expenditures were made by the West South Central Region.

TABLE 15.—REGIONS' SHARE OF POLLUTION ABATEMENT CAPITAL EXPENDITURES

[In percent]

Region	1973	1974	1975	1976
Manufacturing Belt	36.6	35.0	36.2	37.2
New England	3.0	3.1	3.1	3.4
Middle Atlantic	13.5	14.3	12.4	13.4
East North Central	20.1	17.6	20.7	20.4
Periphery	41.6	46.5	48.8	48.6
West North Central	4.8	5.7	4.7	5.4
South Atlantic	14.8	14.9	15.5	12.9
East South Central	8.8	9.9	11.2	9.2
West South Central	13.2	16.0	17.0	21.1
Other:				
Mountain	7.7	5.7	5.3	[1] 2.7
Pacific	14.0	12.7	10.1	[2] 8.3
United States	100.0	100.0	100.0	100.0

[1] Excludes Utah. [2] Excludes Alaska.

TABLE 16.—REGIONS' SHARE OF POLLUTION ABATEMENT—OPERATING COSTS

[In percent]

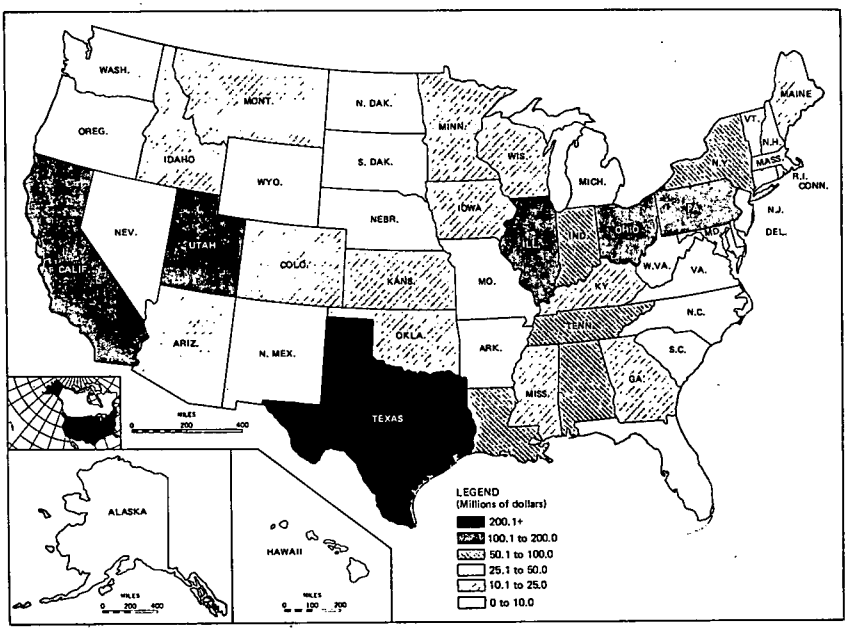
Region	1973	1974	1975	1976
Manufacturing Belt	47.2	46.3	45.5	44.3
New England	3.7	3.7	3.3	3.1
Middle Atlantic	17.7	18.0	17.6	16.7
East North Central	25.8	24.6	24.6	24.5
Periphery	36.6	38.5	39.1	40.5
West North Central	4.3	4.8	4.5	4.5
South Atlantic	12.1	13.2	12.8	13.2
East South Central	6.6	6.9	7.4	7.1
West South Central	13.5	13.6	14.4	15.7
Other:				
Mountain	2.8	2.9	3.0	2.9
Pacific	13.5	12.4	12.4	12.1
United States	100.0	100.0	100.0	100.0

Source: Current Industrial Reports.

Regional shares of pollution abatement operating costs on the other hand (Table 16) show a slightly different pattern. The Manufacturing Belt consistently showed the largest expenditures, though the proportions declined between 1973 and 1976. In contrast, industries in the Periphery experienced increasing costs over the period, while overall costs remained below those of the Manufacturing Belt. The hardest hit region in the Manufacturing Belt was the East North Central; the hardest hit in the Periphery was the West South Central region. State by State differentials in manufacturers' air and water pollution capital expenditures are clearly visible from Figures 4 and 5 for 1976, a pattern very similar to the one of previous years. Manufacturing plants in the four States of Texas, Pennsylvania, Ohio, and California accounted for 31 percent of total abatement capital ex-

penditure in 1976. While States in the Northeast and Midwest generally show higher expenditures, States of the Southwest and Southeast also show high expenditures. It is interesting to note that Texas, which many regard as the most dynamic Sunbelt growth State, was also the largest spender on pollution abatement capital equipment at $500 million in 1976—over double the second largest spender, Ohio, with $226 million.

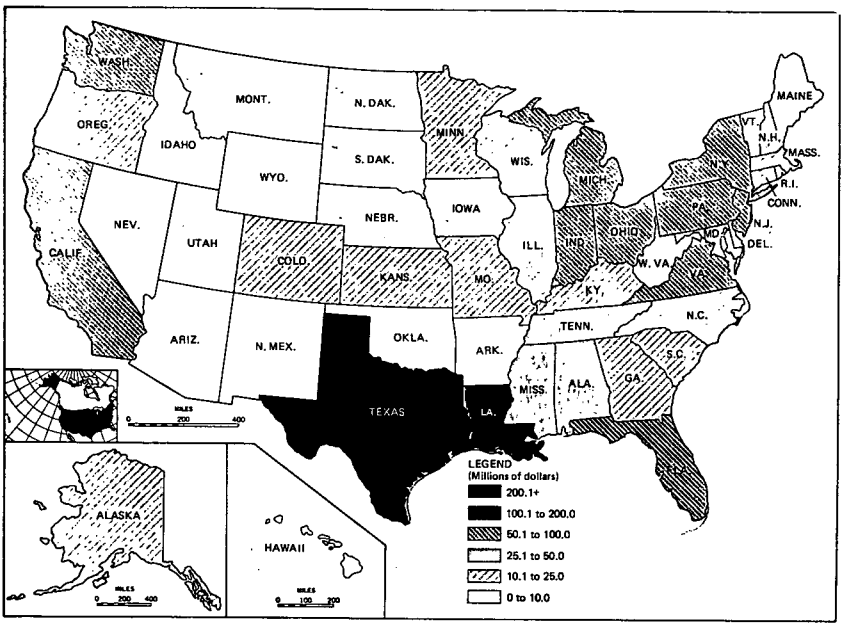
FIGURE 4.—Manufacturers' Air Pollution Abatement Capital Expenditures, by State: 1976.



Source: Current Industrial Reports: Pollution Abatement Costs and Expenditures, 1976, p. 10.

The regional impact data therefore reveal little North-South differentials when it comes to pollution abatement costs and expenditures. Indeed, there seems to be more evidence to show that the growth states of the South and West spend relatively more on pollution abatement than do the 'stagnating' industrial states of the North and East. This is encapsulated in Table 17 which shows the relative amounts of new capital expenditures spent on pollution abatement equipment in various regions in 1973 and 1976. In both these years census regions of the Periphery were consistently higher spenders on pollution abatement than were regions of the Manufacturing Belt.

FIGURE 5.—Manufacturers' Water Pollution Abatement Capital Expenditures, by State: 1976.



Source: Current Industrial Reports: Pollution Abatement Costs and Expenditures, 1976, p. 11.

TABLE 17.—POLLUTION ABATEMENT SPENDING AS A PROPORTION OF NEW CAPITAL EXPENDITURES BY REGION

[In millions of dollars]

Region	1976			1973		
	Pollution abatement capital expenditure	Total new capital expenditure	Percent	Pollution abatement capital expenditure	Total new capital expenditure	Percent
Manufacturing Belt			7.2			6.4
New England	121.0	2,145.5	5.6	70.2	1,370	5.1
Mid Atlantic	473.1	5,520.5	8.6	318.1	4,168	7.6
East North Central	719.5	9,625.0	7.5	473.8	7,449	6.4
Periphery			9.5			9.5
West North Central	191.8	2,401.4	8.0	112.4	1,526	7.4
South Atlantic	456.9	5,679.4	8.0	349.5	4,140	8.4
East South Central	325	2,791.7	11.6	207.2	1,898	10.9
West South Central	743.9	7,212.2	10.3	310.9	2,724	11.4
Other:						
Mountain		1,158.8	NA	181.3	830	21.8
Pacific		4,133.7	NA	330.2	2,776	11.9

Source: Bureau of Census: Pollution Abatement Costs and Expenditures, 1976. Annual Survey of Manufactures, 1976.

This section has reviewed those forms of government policies which were perceived to have a direct impact on industrial location and regional change in the U.S. Taxation policies were seen now, as in the past, to have only a minor effect on industrial location. Further, neither the low funding priority of economic development assistance, nor the neglect of direct aid to industry has had a significant impact on the U.S. industrial geography. The fact that many manufacturing companies are dependent on government contracts for most of their sales means that certain regions and their workers are dependent on Federal purchasing policies. But little evidence was found that this contributed in any major way to the decentralization of industry from the Northeast to the Southwest. Environmental protection policy was found to have the greatest potential impact on the evolving industrial location pattern within the United States. But here again there is little evidence to suggest that such policies are more detrimental to the declining regions than they are to the growth regions. In retrospect, therefore, these forms of government policies are seen to have little impact on changing industrial location patterns within the U.S. But all forms of government policy eventually have some form of geographical manifestation, even if in the most indirect ways. It is these types of policies that can indirectly impact industrial location trends that the study briefly discusses.

D. The Indirect Effects of Government Policies on Industrial Location

Given the methodological problems implicit in assessing the impact of government policy as discussed in the earlier part of this section, it stands to reason that such problems multiply in a discussion of the indirect as opposed to direct impact of various policies. Certain policies are, however, in need of review as they indirectly affect industrial location patterns, particularly under the present deregulatory climate. Attention will be given here to three types of policies: transportation regulations, the Federal Trade Commission and Securities and Exchange Commission regulations (with focus on their reporting systems), and energy policy.

1. TRANSPORTATION REGULATIONS

No serious study of industrial location can deny that transportation costs and regulations within the transportation industries have a major influence on manufacturers. The role of transportation costs has been given considerable, if not too much, attention in classical industrial location theory (Smith, 1971). But one reason why a scarcity of useful empirical (as opposed to theoretical) work on the locational patterns of transport costs exists is the complexity surrounding the freight-rate schedules.

Historically, transportation costs and freight-rate structures (particularly those set by the Interstate Commerce Commission) were considered major determinants of industrial location. Clearly, in heavy industries (such as iron, steel, and chemicals), transportation costs are still one of the factors keeping those industries in the locations where they were initially set up. But the high-technology growth sectors of today produce goods of higher value and lesser bulk which make them less sensitive to transportation costs. Yet, transportation related policies still play a role in industrial location patterns. The

construction of urban freeways and interstate highways undoubtedly played a considerable role in the decentralization of industry from central cities to the suburbs, and from the older to the newer regions of the country. Although the exact role of such policy decisions is difficult to measure, the Department of Transportation has been engaged in many urban-oriented impact studies including industrial change.

So it is, with the current evolving policies of deregulation in various transportation sectors, that few anticipatory analyses exist. But it is still possible and useful to make some rational guesses as to the potential impact of such deregulation on industrial location patterns and regional growth in the U.S., while emphasizing that it is an area in need of serious research, particularly since deregulation in certain sectors is already taking place.

In the airline industry, the Civil Aeronautics Board approved the use of 248 "dormant" routes by 22 airlines as one of the first actions under the new Airline Deregulation Act of 1978 (New York Times, November 11, 1978). Since the airlines had to start using the routes within 45 days of the order, this put increased pressure on existing equipment as well as created demand for new aircraft and ancillary equipment. This in turn has already provided a growth spurt in the transportation equipment industry, as illustrated by "the bonanza at the Boeing Company, [consisting of] orders in 1978 for nearly 400 aircraft at a delivery cost of more than $9 billion" (New York Times, November 25, 1978). Given that such aircraft manufacturers are concentrated in only a few specific locations such as Boeing in Seattle, McDonnell Douglas in St. Louis, and Lockheed in southern California, one impact of airline deregulation (at least in the short run) is increased industrial production at these locations plus an interregional multiplier effect through the subcontracting patterns of these companies (as illustrated by Erickson, 1974).

It is also possible that deregulation may encourage agglomeration tendencies in certain key airport transfer points around the country and cause the phasing out of service to many small communities (Business Week, October 30, 1978). Since access to key airports is seen as an increasing influence on industrial location decisionmakers, and since, the amount of manufactured products shipped by air is increasing, industry location patterns in various parts of the U.S. could be influenced indirectly. Though industrial location still is not determined by airport location, the centralization of air traffic at various key airports could cause increased industrial agglomeration.

In the trucking industry, deregulation is far less certain and far more complex. Whereas entry into the airline industry demands high levels of capital outlays, this is not the case for trucking. The competitive nature of that industry can be easily changed by any action of the Interstate Commerce Commission (ICC). The biggest targets of deregulation are the larger regular-route common carriers because more than 75 percent of all revenues are earned by 25 percent of these truckers. However, not all observers are convinced that deregulation will result in greater competition (Fortune, December 18, 1978). Given that so many manufactured products are moved by road, the possible increasing or decreasing rate schedules can have an impact on industrial location, though it is doubtful whether this will be of major significance.

2. SEC–FTC REGULATIONS

The SEC has an indirect impact on industrial location in the sense that its lack of reporting requirements makes it difficult to monitor industrial changes from an intra-organizational perspective. The multiplant, multilocational firm has dominated the structure of manufacturing for some time, but lack of data on intrafirm transfers of materials, investment and employment between different locations makes it nigh impossible to monitor any policy impacts. This is particularly true at the international scale.

Reporting requirements and classification schemes used by the FTC have more conspicuous implications for industrial location in the U.S. The 1960's witnessed the third major wave of acquisitions and mergers in the history of the country, yet the impact of acquisitions as either a stimulus or a brake on industrial growth has been ignored in industrial location studies. If Samuel Reid (1976) was correct in his description of FTC reports as "grossly misleading" when they state that horizontal mergers have declined in the U.S., it implies that many horizontal mergers were camouflaged under the 'conglomerate' category and that the ownership of American industry was becoming more centralized in the 1960's. This, Reid equates with the increasing external control of industries from specific locations, New York in particular. Yet, if it had not been for the conglomerate boom of the 1960's that allowed companies to grow via product diversification, growth via geographical diversification might have sent many more companies abroad. Irrespective of whether Reid or the FTC is correct, there seems to be a need for more research on FTC classification systems and the impact of acquisitions on regional industrial structures.

3. ENERGY POLICY

Despite its deleterious effect on much of the world's economy, the OPEC price increases of 1973 benefitted some depressed regions in Western countries. The London Economist noted that OPEC had done more for the Scottish economy (by escalating the price of North Sea oil) than 30 years of government policy. In the same vein it has been suggested that the economy of West Virginia owes more to OPEC than to 15 years of government policy. Miernyk (1976) has suggested that the low per capita income of the U.S.'s major net energy producing states was partly a result of the aggressive price competition that kept energy prices down. This in turn helped subsidize the rapid growth of urban and suburban areas. Historically, energy prices in the U.S. have been low relative to other costs of production. So they have played only minor determining roles in the location of industry, particularly of certain energy-intensive industries like aluminum production.

This situation could change, however, if the price of energy continues to rise faster than the price of other production inputs. Therefore, energy could become a more important determinant of industrial location than it has been in the past, resulting perhaps in a revival of coalfield-based industrial development. Given that energy policy and its differential regional impacts are the subject of another study

for the JEC (see paper by John Sartain), this issue will not be pursued further here.

These then are certain types of government actions that have an indirect impact on industrial location patterns in the U.S. The American love of newness has meant that tax credits on investment in new plant equipment have helped "subsidize" the growth of suburban areas and also new industrial regions in the South and West. But one could carry this to extremes and also argue, for example, that higher Federal spending on research and development in the 1960's subsidized certain growth sectors like aerospace and electronics, and hence subsidized the growth of certain regions in the South and West where these activities are located.

However, the general conclusion of this section of the paper must be that both direct and indirect government policies had relatively little impact on industrial location trends in the United States in the postwar period. Because of this, and particularly because of the low priority given to economic development assistance in the United States (as discussed earlier), there are many who advocate increasing government policies and increasing government subsidies—even in today's deregulatory climate—to the new depressed regions of the country: the older cities of the North and East. Before this is done, however, a careful look should be taken at the European experience which has witnessed a high degree of attention to government policies as the panacea for alleviating regional problems. A cursory look at the European system of regional and industrial development policy is therefore taken before the close of this study.

E. Lessons From Europe

Dating back to the 1930's most countries of western Europe developed a more explicit set of regional and industrial policies than the United States. Many observers of these policies, however, suggest that they are long in their complexities and short in achievement. In the United States where only a minimum of regional policy exists, regional industrial growth and indeed regional convergence in incomes have taken place. Therefore, before more government policy is designed to meet the political clout and economic necessities of the new problem regions (the older urban areas), an assessment of both the successful and unsuccessful policies of other countries is needed. This is done briefly here for the United Kingdom, which has developed one of the most comprehensive programs of regional industrial policy since Keynes' time.

A wealth of literature exists on this topic, among the most worthwhile being the works of Brown (1972), Hansen (1974), Keeble (1976), McCrone (1969), Sant (1974), and Whiting (1975). To synopsize British industrial development policy is difficult, however, "because policy development has not really been a continous process but subject to rapid fluctuations in intensity of controls, scale of financial inducements, extent of areas affected and range of policy instruments, consequent upon changes in national and regional economic fortunes and in government administrations" (Keeble, 1976, p. 220). The earliest regional location of industry legislation was the 1934 Special Areas

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Act which was a reaction to massive unemployment in peripheral regions of the country and established limited financial assistance for these Special Areas, antecedents of today's Development Areas. A more important piece of legislation, however, was the Distribution of Industry Act of 1945, which took up the recommendations of the 1940 Barlow Report to impose a set of controls on new factory construction in the more prosperous regions of the U.K. These controls have been an integral part of British regional policy ever since, taking the form of "industrial development certificates" that had to be issued on any industrial building over 5,000 square feet. Jusenius and Ledebur (1977) suggest that existing firms considering expansion in selected parts of the U.S. be required to obtain such permits before being allowed to expand.

The other side of the "push me-pull you" approach to British industrial location policy was a system of financial incentives set up for manufacturing industry to locate in the Development Areas of Scotland, northern England, Wales, parts of southwest England and Northern Ireland. During an intensified era of regional policy in the 1960's, these incentives included loans and grants for the purchase of plant and machinery that initially amounted to cash grants of 10 percent of the cost of new plants, and by 1966 to grants of 35 percent of the total cost new buildings and 45 percent of the cost of machinery and other capital equipment. This meant that companies of any nationality wishing to set up a branch plant in, say, Scotland, in the latter 1960's, could get over one-third of its initial investment back from the British Government. Not surprisingly, therefore, we find (Forsythe, 1972) that many American companies took advantage of such grants and, in Scotland, they "have grown more rapidly, recorded higher rates of investment, and have been more productive on all accounts than their indigenous Scottish counterparts, "(Keeble, 1976, p. 239)—a development that was noticed with some consternation in various aspects of the British economic community.

By the late 1960's, however, reliance upon capital subsidies had prompted many analysts to argue that this only created capital intensive industry in areas that desperately needed labor intensive industry. No doubt such claims could also be made of any suggestions in the U.S. to provide central cities with capital subsidies. In 1967 in the U.K. these critics were answered with the introduction of the Regional Employment Premium, which took the form of direct payroll subsidies to all existing manufacturing employment in the Development Areas and amounted to about 7 percent of labor costs initially. Such a policy as this may be appropriate in various central cities of the U.S.

One other development in the late 60's in the U.K. that may be of some relevance to the current urban problem in the U.S. was the creation of yet another type of assisted area, the Intermediate Areas. These were areas located in between the more prosperous areas of southeastern England and the peripheral Development Areas where relatively low unemployment rates concealed many of the symptoms of economic stagnation. These areas were bypassed by expanding industry opting for the cost subsidies of the Development Areas, and so they were given a proportional share of the incentives of the Development Areas. If central cities become the next Development

Areas of the U.S., the areas between their central business districts and the suburbs may become the next Intermediate Areas.

Given that the 1960's were the heyday of British industrial location policy, and since enough time has passed for some evaluation, what were its accomplishments? General support can be found (Brown, 1972; Moore and Rhodes, 1973; Keeble, 1976), for the proposition that government policy had a significant influence on the location of industry in the U.K. Brown's estimate of Development Area manufacturing-job creation between 1950 and 1970 puts the figure at about 30,000 jobs per year. A high correlation is seen between success and the relative strength of regional polices, i.e., job creation was low in years of weak regional policies and high in years of strong regional policy. Moore's and Rhodes' careful study estimates that stronger regional policy after 1963 resulted in a 150,000 or 12 percent manufacturing job increase in the Development Area, by 1970—a 12-percent increase relative to what would have been expected, given national industrial trends, and absent the strengthening of regional policy. In evaluating the different policy measures Moore and Rhodes identified the controls (the industrial development certificate system) as being the most effective, followed by the investment grants and then the labor subsidy, the Regional Employment Premium.

But one can still be skeptical about such success, given the concurrent structural changes taking place in British manufacturing industry during the 1960's, and the inherent difficulties of comparing what happened with what could have happened. Keeble concluded that (1976, p. 287) "The most important single influence upon current manufacturing location trends is government industrial location policy." But this may be somewhat extreme, given his earlier observations that "Such trends can simply but strikingly be characterized by the single word 'dispersion'. Whether at the interregional, intersubregional, or interurban scales, by the late 1960's and early 1970's, manufacturing industry in Britain was rapidly declining in most larger existing industrial centers while growing, equally rapidly, in most smaller traditionally nonindustrial locations." The observation is sufficiently apropos of U.S. trends as to suggest evolutionary changes common to Western industrial nations. The shared processes of change, contrasted with the diverse histories of regional industrial policy over the last 20 years, confirm (1) the importance of the link between structural and locational change (discussed in the first part of this paper), and (2) that these structural changes were induced by market mechanisms more than by governmental policies.

Even if British regional industrial policies were successful in the 1960's, the general environment of the 1970's was so different that it heralded a change in those policies. The Great Recession of 1975 took its toll on prosperous and nonprosperous regions alike; and decentralization of manufacturing industry from the large urban areas, particularly London, increased so rapidly that the foremost regional problem areas in the U.K. as well as in the U.S. became the older urban areas. This resulted in the Inner Urban Areas Act of 1978 which targeted the regional policy programs onto the urban areas in the U.K. Furthermore, the formation of the National Enterprise Board by former Prime Minister Callaghan's Labor Government saw an encouraging shift from the subsidy of declining industries in de-

clining regions to the subsidy of growth industries. All of this has heralded a new era of "national regional policy" with a focus on the urban areas instead of the Development Areas, along lines which many have suggested for the U.S. (Jusenius and Ledebur, 1977). As Keeble stated regarding the U.K. (1977, p. 11): "The apparent success of intensified regional policy over the last ten years, suggesting as it does that substantial government expenditure can influence the geography of welfare in Britain, may thus paradoxically be one factor in refocusing spatial policy away from the traditional broad assisted regions and toward needy conurbations wherever these may be located." Given that the regional problem areas of both the U.S. and U.K. are now the large urban agglomerations and given that the British have made positive evaluations of the accomplishments of their recent intensification of regional policy, it would only be appropriate to assess the potential impact of these and other policies in the U.S. before any new urban development program be initiated here.

Conclusion and Recommendations

There is little doubt that drastic changes have taken place in the structure of the American economy in the post World War II era, comparable in magnitude to any period of similar duration. The faster growth rate in employment in the service sector was found in this study to camouflage the impact that new technology, particularly in electronics, chemicals and aerospace, has had on growth in the manufacturing sector.

The major conclusion of the first part of the study is that these structural changes are causally linked to changes that have also taken place, and are still taking place, in the location pattern of American industry. Powerful market mechanisms manifested by the pull of demand in peripheral growth regions of the country and the search for cheaper production factors, particularly labor, go a long way toward explaining these locational changes. The combination of growing demand and cheaper cost factors result in a series of economic decentralization processes at a number of geographical scales. The main focus of attention in the study is the interregional mobility of industry between various parts of the country, particularly between the Northern and Southern states. But similar causal mechanisms are behind the continued growth of suburban areas, the much-heralded revival of nonmetropolitan areas in all parts of the U.S., both in proximity to and removed from existing large urban centers, and the recent increases in "reverse investment" where the devalued dollar makes American production costs increasingly attractive to foreign investors. As might be expected, foreign investors in manufacturing favor the growing peripheral regions of the country.

Given these large changes in the location of American industry, it is not surprising that government policy has been labeled—particularly by the news media—the catalyst of change. At the interregional level the "conspiracy theory" between the North and the South is seen to have a long and varied history. But in the 1970's it is the South that has been popularly viewed as the conspirator and the most preferred region in the receipt of Federal monies. The direct impact of government policies on industrial location and re-

gional development in various parts of the United States was examined in the study to throw further light on this issue.

Assessing the impact of government policy on regional industrial change is filled with methodological problems which were examined in the study. The problems were typical of any cost benefit analysis, but compounded by the constant dynamism of the American regional system, i.e., the interregional flows of people and capital that take place within the United States, the difficulties of examining the short- versus long-term effects of such policies, and the imponderable task of comparing the results of policy with what may have happened in the absence of such policy. The four areas of policy examined—taxation, economic development assistance, defense procurement and environmental protection policy—were chosen as policies that potentially had the greatest direct impact on the location of industry within the country. But the major conclusion of this part of the study is that these policies have had little direct impact on industrial location trends in the United States.

Taxation policies generally were seen now as in the past to have had but a minor effect on influencing industrial location decisions. Economic development assistance to the most distressed parts of the U.S. had been given such a low funding priority and direct aid to industry within these areas had been neglected to such an extent that very little impact on the industrial geography of the U.S. resulted. Since many manufacturing companies were dependent on government contracts, (particularly military-oriented) for most of their sales, certain regions of the country and the workers therein were dependent to a large degree on Federal purchasing policies. But from the studies and data sources examined in this report, little evidence was found that parts of the South and Southwest were given preferential treatment in the receipt of such contracts. Indeed Bureau of Census data, which have been ignored in other studies on this topic, clearly show that most defense subcontracts flow to the large industrial states of the North and East. Environmental protection policy, a symbol of the new social legislation of the early 1970's, was seen to have the greatest potential impact on the evolving industrial location patterns in the U.S. Increased pollution abatement expenditures have the potential for changing market as well as regional structure of various industries. But here again there was little evidence that stringent environmental protection policies represented a larger cost factor in the declining regions of the national economy than in the growth regions. In fact pollution abatement capital expenditures as a proportion of total new capital expenditures in manufacturing were shown to be heaviest in the newer peripheral growth regions of the country.

In addition to assessing the direct influence that government policy has had on industrial location and regional change, the study also addressed the more difficult task of measuring the indirect effects that policies have had on industrial development. Transportation costs have traditionally been regarded as some of the most severe constraints on the location of industry. Therefore, current deregulation procedures in the transportation sector may have major impacts on industrial location trends in the future. These effects and their magnitudes are indeed difficult to anticipate and may only be minimal. But this topic alone makes anticipatory policy analysis an important area for

more emphasis. This is also the case when one considers the implications that changes in FTC merger and acquisition classifications may have on regional industrial-growth patterns, let alone the clouds that loom above American industry because of the lack of a cohesive energy policy.

The overriding conclusion of this study is that government policy has had very little direct impact on the changing industrial location patterns within the United States in the post-1945 era. A number of recommendations are forthcoming as a result of the study:

(1) A recurring problem throughout this study was that the direct impact and, even more so, the indirect impact of government policies were difficult to measure accurately, either because of anayltical problems implicit in the task or because of the paucity of data on the regional impact of public policy. Hence, some priority in the future should be given to improving data bases and analytical procedures so as to enable policymakers to anticipate any indirect regional impacts of various public policies.

The state of research on the regional impact of public policy is still in a fairly primitive stage. Given the potential impact that recent legislation on transportation deregulates and any developments in energy policy may have on regional change in the U.S. in the near future, the need for more effective anticipatory regional policy analysis becomes even more acute. As a corollary to this, it is suggested that regional impact analysis be a mandatory part of economic impact statements that accompany legislation. This does not imply that all legislation in the future should include a regional impact statement. However, the question ought to be examined further to ascertain where regional impact statements may be appropriate.

(2) During this study a large variety of other studies as well as data sources were examined. A number of insightful studies relating to public policy and regional change have recently been commissioned by a number of Federal departments and agencies. Examples include the work on Federal Outlays by the Economic Research Service of the Department of Agriculture, the work on Federal spending using multiregional input-output analysis by the Office of Income Security Policy at HEW, the regional impact of energy policy by EDA, the regional research at the Bureau of Economic Analysis, and special studies by other entities including the Advisory Commission on Intergovernmental Relations and the Congressional Joint Economic Committee. An inevitable impression is that a greater degree of coordination of such regional policy efforts, possibly in one department, may be more efficient.

(3) If one accepts the conclusion that government policies have had little influence on industrial location in the U.S., does this imply that government policy is inefficient or insufficient in this area? When one examines, as this study does, the results of the industrial and regional changes that have taken place over the last 30 years and the convergence in regional economic prosperity that has taken place, one can conclude that the lact of government policy was not detrimental to the economic health of various regions within the U.S. Indeed, if government policy had had more influence, the same manifestations of today's greater degree of regional economic equality within the U.S. might not have occurred.

Yet there are many who still advocate increasing government policies and increasing government subsidies to the new depressed regions of the country, the older cities of the North and East. Given the minimal impact that such policies may potentially have, one should be wary of the benefits of any new round of legislaton aimed at the revival of stagnating cities and stagnating regions. If the current urban problem becomes so severe that legislation need be considered, a careful selection of policies is needed. The European experience reviewed in the latter part of this paper shows that capital subsidies may not alleviate unemployment problems, and that direct labor subsidies may only have minimal impacts on the restoration of a region's economic health. Europeans also found that there were few benefits to be gained in subsidizing declining industries in marginal areas. There seems to be little point in repeating the mistakes of others.

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