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The Status and Prospects of Maryland's Public and Private Sectors

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A report prepared for the Task Force on State Economic Development
of the
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The Johns Hopkins University
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SUMMARY

During the twenty-five years immediately following World War II, Maryland's economy performed at par with or even better than the national economy, and the state garnered an increasing share of national employment and income. However, in the early seventies, the state's economy faltered, and it is only in the most recent employment and income statistics that there appears any indication that the sluggishness of the early seventies may have been but a short-term phenomenon, and it is a tentative indication at best. While it is still too soon to say whether the state will return to the favorable pre-1970's growth path, a number of important changes in the state's economy have become manifest. Over the last 16 years, Maryland's failure to retain its share of national manufacturing employment has cost the state approximately 63,700 jobs. As a result, in 1976 there were fewer manufacturing jobs in Maryland than there were in 1950. For the most part, the loss in manufacturing has been at the expense of Baltimore City and the surrounding metropolitan area. At the same time, government employment has increased substantially; in 1971, for the first time, the number of government jobs in Maryland surpassed the number of manufacturing jobs. These changes have been accompanied by a growing importance to the state's economy of Maryland's District of Columbia suburbs.

In 1975, Maryland's D.C. suburbs generated a larger share (30.7 percent) of the total state earnings than either Baltimore City (28.9 percent) or its suburbs (27.1 percent). Clearly, there is a major restructuring of the state's economy underway, which is greatly affecting both the locations and types of activities in which the state's population finds employment.

Given the state's proximity to the nation's capital and the decline, particularly in the manufacturing sector, of the nation's northern and eastern regions, it is not surprising that the state's economy should be restructuring itself in the way it has. Indeed, given the down-turn in the Northeast and the stabilization of federal employment, the surprise is that Maryland's economy has fared somewhat better than could have been expected, at least in terms of total employment. Still, it is not at all clear that there is much reason for optimism in the fact that the state's total employment has not declined. For any search for the causes of buoyancy in the state's employment would quickly come to state and local governments, where the number of employees increased by a full thirty percent between 1970 and 1975.

The surprise related to this rapid growth of state and local government employment is that, in a state whose image is so closely linked to the federal government, state and local governments account for three out of every four government jobs located in the state.

Regardless of one's view about the necessity or advisability of expansion in the levels of state and local government employment, that it has played a substantial role in the state's economic performance cannot be denied. Between 1975 and 1976, for every 100 jobs added in the private sector, 45 were added to state and local government payrolls. Indeed, if state and local government employment had remained stable at 1970 levels, the sluggish nature of the private sector would not only have been more obvious, but would no doubt have elicited a great deal more concern.

Still, there is little reason for optimism, for, as the data examined herein reveal, a number of factors have altered the state's ability to compete in the national economy. First among these are the changing nature

of production and transportation technology, and the long-term westward and southward shift in the nation's population distribution. The importance of these is not only that they have placed the nation's major growth areas at a greater distance from Maryland, but that they underlie what appears to be a national readjustment which is likely to continue to be detrimental to Maryland and those regions which are the major consumers of its products.

Thus, a number of long-term factors appear to be operating so as to reduce Maryland's competitive position vis-a-vis areas in or in proximity to the growth areas in the South and West, and at the same time reduce the levels of economic activities in Maryland's major market areas, at least relative to national totals. There can be little doubt that the changing regional structure of the national economy will continue to frame the course of the state's economic future. More uncertain, however, are the prospects for the state to maintain even the moderate rates of growth which have characterized the seventies. In part, the uncertainty arises out of doubts about the ability of state and local governments to increase their employment rolls at the same high rates which characterized the seventies. Equally, or perhaps more, important, there are a number of other major and identifiable changes in the state's economy which most would think reduce its growth potential.

In particular, manufacturing wage rates, which were at a par with the national average in the late sixties, in mid-decade exceeded the national average by about 6.5 percent and exceeded the average of all metropolitan areas by more than 15 percent. Increasing labor costs, however, have not been accompanied by commensurate increases in labor productivity. In 1975, labor cost per employee was higher than the national average, while productivity per dollar of labor expenditure in Maryland stood well below the

national average. The case with energy cost is similar. Energy costs in Maryland have increased quite rapidly, and, in 1975, exceeded the national average by 35 percent. Maryland is the tenth highest state in energy cost, primarily because of its heavy dependence on high cost sources such as fuel oil and purchased electrical energy. This being the case, it seems that the moratorium on new gas hook-ups in the state will increase the state's dependence on high cost fuels.

The tax situation is similar in that state and local government tax burdens can best be portrayed as high and rapidly increasing. In 1976-77, Maryland's state and local government spending per capita exceeded the national average by about 13 percent. In part, Maryland's taxes are high because, relative to its population, state and local government employment is high both relative to the national average and relative to those of most states as well. Moreover, the costs of providing services, in particular labor costs, are high whether gauged against the national average or gauged against costs in neighboring states. This is of particular importance, for it appears that recent expenditure increases can be traced primarily to cost factors rather than to increased service levels. These factors, labor costs, labor productivity, energy costs, and tax burdens, no doubt serve to reinforce the above identified long-term trends which have been so detrimental to the Northeast and to Maryland.

In the context of the fiscal position of the state government, the situation is not as strong as the recent discussions about the disposition of the accumulated surplus seems to imply. Maryland's spending per capita has increased relative to its income growth, and has done so to a greater extent than is the case nationally, despite a declining responsiveness of its revenues to income growth. Indeed, the analysis of past trends

indicates that, to a fairly large extent, government expenditure increases are of the built-in variety, and difficult to control. The state appears to have recognized this in its own budget projectsion, for they forecast a growth in expenditures in excess of that in revenues. That is to say, barring any major cost reduction or unanticipated revenues, the state anticipates that the current budget surplus will be steadily decreased as it meets its ongoing responsibilities.

Beyond this, the state's budget forecasts do not hold forth promise for local governments. Indeed, one reason why the state's expenditure forecasts are not higher than they are is that aid to local governments is slated not to exceed current levels. The implication is, of course, that local governments will have to finance any expenditure increases out of their own revenues (or through increased federal aid). As there is no obvious reason why either the cost or, with the exception of the property tax, the revenue factors which confront local governments are much different from those faced by the state government, it would seem likely that local governments will soon face added budget difficulties. Given the essentially proportional nature of the local income tax, the implication of the state's budget projection is that local governments will face increasing pressure either to increase property taxes or to undertake expenditure cutbacks and service level reductions.

INTRODUCTION

At mid-decade, the status and outlook of the Maryland economy has become an issue of popular controversy and serious concern. In part, this no doubt is a reflection of growing national concern arising out of the nation's experience with the recession and the changing patterns of regional activity within the country. Nonetheless, the cause for concern is real, and the need for attention is pressing.

This report has been prepared in response to that need. The objective is to overview the performance of the state's economy, and of its public sector. To do this, the state's economic activity relative to the nation is examined and a number of factors which, in one way or another, are important to that past and the prospective performance of the state's economy are reviewed. The discussions here do not purport to be definitive. In this regard, they are like related discussions contained in other recent studies.[1] They are all too brief to provide full coverage of topics considered, let alone all the elements which are likely to frame the state's future. Indeed, even a cursory review of this and similar reports which have been completed recently would reveal just how much more study and analysis is needed if the state and its government officials are to develop policies for the future which are based on a real understanding of the mechanics of the important factors affecting the state's economic well-being.

This report is divided into three sections. The first reviews, in an aggregate fashion, the overall operation of the state's economy and its governments; the second examines a number of factors underlying the state's economic

[1] The most recent, and in many ways the most thorough, review of the problems and prospects of the state economy is Maryland Department of Economic and Community Development, Division of Research, The Maryland Economy Status and Outlook, 1976-1977. An equally informative study, which is less well-known, is

performance, e.g., the state's relation to the national economy, energy cost and availability, labor cost, and productivity; and the third explores the fiscal position and outlook of Maryland state and local governments.

TRENDS IN MARYLAND'S EMPLOYMENT, INCOME, AND PUBLIC FINANCE

Employment

After two decades of growing more rapidly than the nation, non-agricultural employment during the 1970's has grown more slowly in Maryland than in the rest of the nation (Table 1). Between 1950 and 1960, employment in Maryland grew by 25.2 percent, while nationwide employment increased by 19.9 percent. The growth of employment in Maryland relative to that in the nation was even more pronounced during the sixties, as Maryland's rate of employment growth (45%) was roughly half again that of the nation as a whole (30.8%).

In the early 1970's, the fortunes of Maryland's economy appear to have dimmed. In 1972, 1973, and 1974, Maryland's rate of employment growth fell below the national average, and in 1975, the number of non-agricultural jobs in Maryland actually fell by 10,200. In 1976, the job situation in Maryland appears to have improved, as the preliminary data indicate that the number of non-agricultural jobs increased. Moreover, although the data are preliminary, and not directly comparable to those for earlier years, they do indicate that Maryland has recaptured its share of national employment.

Market Analysis: The Competitive Posture of Holabird Business and Industrial Center-The South Atlantic Market Area, a technical report. A serious analysis of the Baltimore metropolitan area economy is contained in the Baltimore Regional Economic Study: Final Report (Metro Center Occasional Paper). More topical are the following: Baltimore Chamber of Commerce, The Business Tax Climate in Maryland: A Report of the Commission on Governmental Efficiency and Economy, 8 March 1977; James D. Landauer Assoc., Inc., Strategy for Attracting New Industry to the Baltimore Metropolitan Area, 12 March 1976; and Marsha R.B. Clark, The Contribution of Economic Development Agencies to Economic Growth and Revitalization in Seven States, a report to the Metro Center Task Force on State Economic Development, October 1977.

Table 1: Total Non-Agricultural Employment and Employment Change in the United States and Maryland, Selected Years 1950-1975 (in thousands)

	Employees		Percentage Change		Maryland as a % of
	Md.	U.S.	Md.	U.S.	the U.S.
1950	716.1	45222	---	---	1.58%
1960	896.4	54234	25.27%	19.92%	1.65
1970	1300.7	70720	45.10	30.76	1.83
1971	1315.9	71222	1.26	0.43	1.85
1972	1357.4	73714	3.15	3.50	1.84
1973	1412.9	76896	4.08	4.32	1.83
1974	1434.5	78413	1.52	1.97	1.82
1975	1424.3	77051	-0.71	-1.73	1.84
1976	1507.3[a]	79443	5.82	3.10	1.89

[a]Figure available for May 1976 only.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, United States 1909-1975, Bulletin 1312-10, p. 1, U.S. Government Printing Office; Employment and Earnings, States and Areas, 1939-1975, Bulletin 1370-12, p. 327, U.S. Government Printing Office.

Whether Maryland's recent experience should be taken as a return to the pre-1972 pattern of job expansion at a more rapid rate than in the nation must be a matter of conjecture at this point. The basis for optimism is weak, primarily because of the source of the growth, i.e., the government sector.[2] Government employment in Maryland since 1950 has consistently grown more rapidly than either total private sector employment or employment in manufacturing (Table 2). Indeed, the growth of government employment during the fifties and sixties was so great that, in 1971, the number of government jobs in Maryland surpassed the number of manufacturing jobs. Moreover, throughout the 1970's, the number of jobs in government grew at a rate which exceeded that of the private sector. In fact, through the 1970's, manufacturing employment in Maryland declined to such an extent that in 1976 there were fewer manufacturing jobs in Maryland than there were in 1950. What this implies, of course, is that Maryland has become increasingly dependent on government employment. In this regard, it is important to note that state and local government employment in Maryland increased by more than 25 percent between 1970 and 1975, while the increase in private sector employment was a more modest ten percent. Perhaps even more important is the recognition that in excess of 90 percent of the increases in government employment during this period were jobs added by state and local government. From these figures, it is difficult not to conclude that government, particularly at the state and local levels, has become a major driving force behind job expansion. This is most clearly portrayed by the fact that, between 1975 and 1976, for every 100 jobs added in the private

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[2] It is worth noting that the discussion here refers only to jobs on a place of work basis, rather than on a place of residence basis. The figures do not include residents of Maryland who work out of state.

Table 2: Employment in Maryland by Sector, Selected Years 1950-1976 (in thousands)

	Private Sector		Government Sector		
	Total	Manufacturing	Total	Federal	State and Local
1950	618.9	232.9	97.2	--	--
1960	753.6	259.9	142.8	47.9	94.9
1970	1051.7	271.1	249.0	66.1	182.9
1971	1060.2	252.1	255.7	65.0	190.7
1972	1091.8	248.5	265.6	65.0	200.6
1973	1137.50	256.7	275.4	67.4	208.0
1974	1148.8	254.2	285.7	69.3	216.4
1975	1122.4	229.9	301.9	69.8	232.1
1976	NA [a]	231.6	NA	NA	238.3

[a] Figure available only for May 1976

NA = Not available

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, States and Areas 1939-1975, Bulletin 1370-12, U.S. Government Printing Office, Washington, D.C.

sector, 45 were added to state and local government payrolls alone. This alone should serve to dampen the enthusiasm of any who would take the apparent high 1976 growth rate of total employment as indicative of the strength of the state's economy.

The role that government employment has come to play is more clearly enunciated by the changing relative positions of the major sectors of employment (Table 3). Between 1970 and 1975, the government sector's share of all jobs increased by about 10 percent, from 19.1 percent to 21.2 percent of total employment. This increase was accompanied by a fall in the private sector's share of jobs in the Maryland economy. But this decline was not evenly spread over the private sector. As the employment share of the non-manufacturing segment of the private sector increased, the growth in government employment served, at least partially, to offset the declining position of manufacturing in the Maryland economy.

In general, the changing employment pattern, out of manufacturing and into government, corresponds to the more general national patterns. However, in Maryland, the pattern is more pronounced, and, as a result, although the state's share of national employment was as high in 1975 and 1976 as it has been at any time since 1971 (Table 1), its share of national non-agricultural employment in the manufacturing sector has generally followed a pattern of decline since 1971 (Table 4). This decline has been so extensive that it outweighs the growth in private non-manufacturing activity and, as a result, the state's share of the nation's private sector employment has declined.

What this general overview portrays is a situation in which the total picture of Maryland's relatively constant share of the nation's employment masks the state's declining position relative to the rest of the nation in the

Table 3: Percent Distribution of Maryland Non-Agricultural Employment by Sector, 1970 and 1975

	1970	1975	Change in Percent
Private Sector	80.9	78.8	-2.1%
Manufacturing	20.8	16.1	-4.5
Non-manufacturing	60.1	62.7	+2.6
Government	19.1	21.2	+2.1

SOURCE: See Table 1.

Table 4: Maryland's Share of National Employment, Maryland's Employment Potential and Cumulative Employment Loss, Total Private and Manufacturing Sectors, Selected Years 1960-1976

	Employment Share *		Employment 1960 Base Potential **		Employment Actual **		Actual-Potential 1960 Base **		Employment 1970 Base Potential **		Actual-Potential 1970 Base **	
	Private	Mfg.	Private	Mfg.	Private	Mfg.	Private	Mfg.	Private	Mfg.	Private	Mfg.
1960	1.64	1.54	753.6	259.9	753.6	259.9	0	0	826.8	235.3	-73.2	24.6
1970	1.80	1.40	958.5	299.4	1051.7	271.1	93.2	-28.3	1051.7	271.1	0	0
1971	1.81	1.36	958.1	287.4	1060.2	252.1	102.1	-35.3	1051.2	260.2	9.0	-0.10
1972	1.80	1.30	991.6	295.4	1091.8	248.5	100.2	-46.9	1087.9	267.4	3.9	-18.9
1973	1.80	1.28	1037.4	310.5	1137.5	256.7	100.1	-53.5	1138.7	281.2	-1.2	-24.5
1974	1.78	1.26	1055.0	310.2	1148.8	254.2	93.8	-56.0	1157.6	280.8	-8.8	-26.6
1975	1.80	1.25	1023.8	283.9	1122.4	229.9	98.6	-54.0	1123.2	251.0	-0.8	-27.1
1976	1.76	1.22	1059.3	293.3	1135.6	231.6	76.3	-61.7	1162.2	265.6	-26.6	-34.0

SOURCE: See Tables 1 and 2.

*Percent.

**In thousands.

private sector generally, and in manufacturing in particular. To appreciate the significance of the declining share of private sector employment, it is helpful to look at the number of jobs Maryland would have had had it achieved its growth potential, i.e., retained a constant share of national employment. Between 1960 and 1970, Maryland's relatively slow growth in manufacturing led to a loss of some 28,300 jobs in that segment of the private sector. As great as the loss in potential manufacturing jobs during the past decade may appear, the situation deteriorated even further during the first six years of the seventies. Between 1970 and 1976, the state lost another 33,400 potential jobs in manufacturing. Thus, over the sixteen-year period, Maryland's failure to retain its share of national manufacturing employment cost it some 63,700 jobs.

Because the non-manufacturing segments of Maryland's private sector were particularly strong during the sixties, Maryland was able to increase its share of the national private sector job total. However, during the seventies, growth in the non-manufacturing sectors has not been sufficiently strong to offset the loss in manufacturing job potential. Between 1970 and 1976, the state lost 25,800 private sector jobs. A continuation of this pattern would mean that, between 1976 and 1980, Maryland would forego the potential of something like 18,000 additional jobs in the private sector.

While this loss in job potential, particularly in the manufacturing sector, should be a matter of concern, its importance lies not so much in the sheer numbers. Rather, it is the failure of the non-manufacturing elements of the private sector to offset the loss of potential manufacturing jobs during the 1970's which is striking, for this clearly marks a reversal of Maryland's earlier experience.

Although the sluggish performance of Maryland's private sector is of such long duration, it should come as no surprise. What is surprising is that the essence of this experience has only recently surfaced in state government publications, and that this news has been received with such mixed reactions.[3] Perhaps this can be attributed to the fact that the state has not institutionalized an ongoing means of critically monitoring and reporting the state's economic performance.

Income

A pattern similar to that of employment may be observed in Maryland's personal income data (Table 5). In the 1960's, Maryland's share of national personal income grew and the gap between Maryland's per capita income and that of the nation widened (Table 6). During the seventies, however, Maryland's share of the nation's personal income remained almost constant, and its level of per capita income relative to the national average varied greatly from year to year in the seventies. Again, the sluggish performance since 1970 can be traced to the private sector, as Maryland's share of the nation's private non-farm earnings fell slightly, from 1.732 in 1970 to 1.726 in 1975.[4]

The Metropolitan Areas

The economic performance outlook of the state cannot be examined apart from that of the Baltimore metropolitan area.[5] The Baltimore area in many ways

[3] Md. Department of Economic and Community Development, Division of Research, The Maryland Economy Status and Outlook, 1976-1977.

[4] U.S. Dept. of Commerce, Bureau of Economic Analysis, Survey of Current Business, August 1976, Vol. 56, No. 8, p. 17.

[5] In this discussion, the Baltimore area is defined as Baltimore City and the five counties, Baltimore, Howard, Harford, Anne Arundel, and Carroll, which compose the standard metropolitan statistical area.

Table 5: Total Personal Income in the U.S. and Maryland and Maryland's Share of Personal Income for Selected Years, 1960-1975 (in millions of $)

	Maryland	U.S.	Md./U.S.
1960	$ 7,288	$ 399,947	1.81
1970	16,968	808,223	2.10
1971	18,279	864,989	2.11
1972	20,120	944,585	2.13
1973	22,216	1,059,535	2.10
1974	24,425	1,159,478	2.10
1975	26,533	1,257,354	2.11

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, Vol. 56, No. 8 (August 1976):Tables 1 and 2, pp. 16-17.

Table 6: Per Capita Personal Income in Maryland and the United States and Ratios of Maryland's to United States' Per Capita Personal Income for Selected Years, 1960-1975

	Maryland	United States	Md./U.S.
1960	$ 2,341	$ 2,222	1.054
1970	4,309	3,966	1.086
1971	4,599	4,195	1.089
1972	4,970	4,537	1.095
1973	5,453	5,049	1.080
1974	5,973	5,486	1.088
1975	6,474	5,902	1.097

SOURCE: See Table 5.

dominates the state, and has done so for years. However, the extent to which the Baltimore area dominates the state declined as the area's share of jobs in both the private and public sectors has declined substantially since 1960, and even since 1970 (Table 7). This decline and the growing importance of job locations in the area outside of the Baltimore metropolitan area no doubt reflect the ongoing restructuring of the state's economy, which was described in the previous section. To the extent that these trends continue, Baltimore and its five surrounding counties will find not only that they have lost their position as the state's major job location, but that this loss characterizes the private as well as the public sectors. Indeed, it appears that before too long the Baltimore metropolitan area's dominance will be limited to the manufacturing sector, in which the state's employment has declined so extensively.

What is true of the metropolitan area generally appears to be even more so in Baltimore City.[6] As recently as 1965, 66 percent of the jobs in the metropolitan area were in Baltimore City (Table 8). However, during the following ten years, rapid suburbanization of the metropolitan area jobs resulted in a substantial decline in the number of people employed in the City and in the City's share of jobs located in the metropolitan area. Indeed, in 1975, the City's share of jobs in the metropolitan area had fallen to 50 percent, and there can be little doubt that the City's role as a job site location will continue to decline as the ongoing process of metropolitan decentralization works itself out.[7]

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[6]For a thorough and careful analysis of the economy of the Baltimore metropolitan region, see George Rocourt et al., Baltimore Regional Economic Study: Final Report, Urban Observatory Program National Agenda Research Project No. 10 (Baltimore: The Johns Hopkins University Center for Metropolitan Planning and Research, 1976).

[7]For a discussion of the factors underlying metropolitan employment

Table 7: Baltimore SMSA Employment as a Percent of Maryland Employment by Sector, 1960, 1970, 1975

	1960	1970	1975
Total	70.20%	61.96%	59.25%
Private Sector	70.94	61.86	58.54
Manufacturing	76.57	72.22	70.24
Government	66.32	62.41	61.87

SOURCE: See Table 1.

Table 8: Total Non-Agricultural Employment Growth in Baltimore City and the Baltimore Metropolitan Area, 1959, 1965, 1970, 1975

	Total SMSA[a]	Baltimore City	Remainder of SMSA
1959	488,527	341,580	146,947
1965	530,417	345,896	184,521
1970	605,413	367,249	238,164
1975	612,523	310,039	302,484

[a]The SMSA includes Baltimore City, Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties. Harford County was not officially included in the SMSA data until 1970, but is included here in previous years for consistency.

SOURCE: U.S. Bureau of the Census and U.S. Bureau of Old-Age and Survivors Insurance, Cooperative Report, County Business Patterns, First Quarter 1957, Part 6A, South Atlantic States (Washington, D.C.: U.S. Government Printing Office, 1961); U.S. Bureau of the Census, County Business Patterns, Maryland, CBP-(1965,1970,1975)-22, U.S. Government Printing Office.

In considering the implications of the changing structure of the nation's economy and the suburbanization of urban areas, it would be a mistake not to consider the peculiar role of counties of southwest Maryland, which are a part of the suburbs surrounding the nation's capital. While these areas have become increasingly important as private sector employment locations, their overriding importance lies in their role as residential locations for government employees. While the available data do not allow an exploration of the full implications of the state's proximity to the nation's capital, the most recent estimates indicate that roughly 36 percent of the jobs in the nation's capital are held by Maryland residents.[8] Maryland's ability to function as a residential location for federal employees, coupled with the growth of government employment, without question has been a major factor underlying its ability to retain its share of national income despite the decline in its share of jobs.

The results of the relative decline in Maryland's private sector, and in particular the loss of manufacturing jobs in Baltimore, coupled with the proximity and growth of the nation's capital, perhaps can best be illustrated by the difference in earnings and personal income in the various areas of the state (Table 9). Since the former is a measure of income generated on a place of work basis while the latter is a measure of income received on a place of residence basis, it should come as no surprise that the suburban areas account for a larger share of state income than earnings. In fact, that is the pattern that the data trace out in both 1970 and 1975; both suburban Baltimore and suburban Washington account for larger shares of the state's income than of its

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decentralization and the prospects for central city employment growth, see Benjamin Chinitz, "The Economy of the Central City, An Appraisal," in The Urban Economy, edited by Harold M. Hochman (New York: W.W. Norton & Co., Inc., 1976).

[8]David Greytak and Edward Cupoli, Revenue Implications of Alternative Tax Systems in the Context of a Changing Central City Employment Structure: The Case of Washington, D.C. Occasional Paper No. 33 (Syracuse, N.Y.: Syracuse Univ., Maxwell School, Metropolitan Studies Program, June 1977).

Table 9: Baltimore City and Selected SMSA Portions, Earnings and Personal Income as a Percentage of Maryland's Total Earnings and Personal Income (totals in thousands)

	Baltimore City				Baltimore SMSA[a]				D.C. SMSA in Maryland[b]			
	1970		1975		1970		1975		1970		1975	
	Total	% of State	Total	% of State	Total	% of State	Total	% of State	Total	% of State	Total	% of State
Earnings	$3900211	32.0	$5245246	28.9	$3188029	26.2	$4912629	27.1	$3404551	28.0	$5565389	30.7
Personal Income	$3456653	20.4	$4745579	17.9	$5132289	30.2	$8219535	31.0	$6149925	36.2	$9996128	37.8

SOURCES: Xeroxed tables entitled Personal Income by Major Source 1970-75, Table 5.00, Regional Economics Information System, Bureau of Economic Analysis.

[a]Excluding Baltimore City.

[b]Includes Prince Georges, Montgomery, and Harford counties.

earnings. Alternatively, Baltimore accounted for a larger share of the state earnings than of its income. What is surprising is not that Baltimore City's share of both earnings and income declined between 1970 and 1975, for that could be expected given the changing nature of the state's economy. Rather, it is the fact that, over the relatively brief five-year span, these declines were rather substantial. Moreover, the changing shares of earnings in the City, its suburbs, and the D.C. suburbs reveal a fact that apparently is not well-known. That is, that by 1975, activities located in the D.C. suburbs generated a larger share (30.7 percent) of the total state earnings than did those in either Baltimore City (28.9 percent) or its suburbs (27.1 percent).

What the changing shares of income and earnings reflect is a pattern similar to that which has occurred in the state's employment, i.e., a substantial change in the economic structure in the state. Out of these changes in the structure of Maryland's economy emerge some types of activities and some areas which have fared well while others have not. In contrast to the declining sectors and areas, the growing sectors and areas hold forth opportunities. The challenge to the state which arises out of its changing economic structure is one of adapting to these changing circumstances.

Clearly, continued decline of manufacturing employment in Baltimore, if combined with a stabilization of federal government employment levels, would not bode well for the state's economy. Whether either of these conditions is likely to occur is a matter of conjecture, although, as will be seen later, the evidence would seem to indicate that Maryland's private sector, in particular the economy of the greater Baltimore area, will not go unscathed by the secular decline of the Northeastern regions of the country.

Fiscal Activity

In some important respects, the fiscal activities of the state have followed the state's economic slowdown during the seventies. In others, they have not. Between 1966 and 1971, the 45 percent increase in state personal income was accompanied by a 72.2% increase in own source revenues (Table 10). Between 1971 and 1976, revenues increased by 70.8 percent, while personal income increased by 58.0 percent. This pattern roughly corresponds to that of the nation as a whole; however, significant differences between Maryland and the nation do appear between the two periods. Between 1965 and 1971, for each one percent increase in Maryland personal income, state and local government own source revenue increased 1.60 percent. The comparable figure for the nation as a whole was 1.48 percent. For the period in the seventies, these rough revenue responses to income growth fell to 1.22 for Maryland and 1.20 for the nation. Thus, while across the nation the growth of all state and local government revenues relative to income growth declined markedly, this trend was even more pronounced in Maryland.

The pattern of relatively slow growth in income and state and local government revenues in Maryland has not been matched by per capita expenditures. At $473.11, per capita spending in Maryland approximated the national average in 1966/67.[9] Between 1966/67 and 1970/71, per capita state and local government expenditures in Maryland increased more rapidly, by 64.7 percent, than those of all state and local governments, 54.2 percent. Growth in Maryland's per capita spending was even greater in the 1970's, 72.3 percent between 1970/71 and 1975/76, and again exceeded that of the nation as a whole

[9]The national figures are taken from U.S. Department of Commerce, Bureau of the Census, Government Finances 1966-67, 1970-71, and 1975-76, Tables 26 and 18.

Table 10: Overall Responsiveness of Maryland and United States Total State and Local Government Own Source Revenues to Economic Activity, 1966-67 to 1975-76.

	MARYLAND			UNITED STATES		
	66/67-70/71	70/71-75/76	66/67-75/76	66/67-70/71	70/71-75/76	66/67-75/76
Percent increase in state and local government revenues from own sources	72.2	70.8	194.0	56.0	68.9	163.5
Percent increase in personal income	45.0	58.0	129.2	37.6	57.4	116.6
Percent change in state and local government per capita expenditures	64.7	72.7	284.5	54.2	63.0	251.2

SOURCE: U.S. Bureau of the Census, Government Finances in 1966-67, 1970-71, 1975-76, Series GF(67,71,76), (Washington, D.C.: U.S. Government Printing Office, 1968, 1972, 1977): Tables 17, 18, and 26.

at 26.9 percent. As a result of the rapid growth in Maryland, its per capita state and local government spending exceeded the national average by about 13 percent in 1976-77.

Relative to the growth in personal income, per capita state and local government expenditure increases were larger in the sixties than in the seventies. In Maryland, between 1966/67 and 1970/71, state and local per capita expenditures increased 1.43 percent for each 1 percent increase in personal income. The comparable figure for the nation as a whole was 1.44 percent. In the seventies, the growth in state and local per capita expenditures relative to income growth declined both in Maryland and across the nation generally: i.e., in Maryland, for each percentage increase in income, spending increased by 1.25 percent, while for the nation as a whole, state and local government expenditures increased by only 1.10 percent for each percent increase in income. Thus, it would appear that, across the nation, while state and local governments have found ways to reduce the growth in their expenditures, at least relative to the growth in income, governments in Maryland have been able to do so to a much more limited extent.

The meaning of these results seems clear. Through a combination of income growth and adjustment in revenue systems, the state and local governments in Maryland have succeeded in more or less maintaining their share of national fiscal activity, despite the post-1970 slowdown in economic activity. The fact that Maryland's spending per capita has continued to increase relative to income growth, and has done so to a greater extent than is the case nationally despite the declining responsiveness of its revenues to personal income, suggests that spending growth in Maryland is not easily controlled and has been much less responsive to the slowdown in the state's economic growth than is the

case nationally.

FACTORS AFFECTING MARYLAND'S ECONOMIC PERFORMANCE

The search for the causes underlying the change in Maryland's economic structure and its sluggish performance is clouded by a debate, uninformed by systemic considerations of those factors which have been considered as influential. Unless public policy is based on correct identification of causes, it will be ineffective and can be counterproductive, accelerating rather than remedying the problem. Important to an understanding of Maryland's economic prospects are (a) the geographic shifts of national markets; (b) the structure of Maryland's economy and its ties with other areas; (c) the fundamental nature of the factors related to the changing structure of the economy; and (d) the role of other factors often identified as inhibiting economic growth, i.e., national economic instability, high labor and energy costs, and high taxes.

In considering these factors, it is important to distinguish between those which have been operative over the long term and those which have not. The contention here is that energy costs, labor costs, and taxes have been relatively more important in recent years, that national economic instability is not really a cause of but only exacerbates existing trends, and that the longer term problems of the Maryland economy are intimately related to those of the changing regional pattern of the national economy, and stem from fundamental changes in transportation and communication, the changing population distribution within the country, and rising affluence. These considerations are crucial in the formulation of any economic prospectus. In particular, they explain why a prognosis for Maryland must be framed with caution.

Regional Shifts

It would be a mistake to consider Maryland's economic fortunes and future as independent of the patterns of change in the national economy. In particular, the changes in the regional distribution of economic activity seem important, for not only do they reflect the changes which have occurred in the location of markets for industrial products and consumer goods, they are indicative of future growth in employment.[10]

Employment

Given the recent publicity about rapid growth in the southern sections of the country, slow growth in the northern and eastern sections of the country is no surprise. However, what is not so well recognized is that, during the first sixty years of this century, only during the first two decades did employment in the Northeast grow more rapidly than that of the nation as a whole (Table 11). The Great Lakes region, which, along with the Northeast, forms the nation's manufacturing heartland, had a somewhat more favorable experience in that its employment growth rate did not fall below the national average until after 1950. The Plains and Southeast regions, during the first six decades, differed from the Northeast and Great Lakes regions only in that employment growth was slower than that of the nation as a whole during the first two decades of this century. The Southeast was a slow growth area between 1910 and 1960, while employment in the Southwest has consistently grown more rapidly than employment in the nation.

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[10] There is considerable evidence that growth in employment follows population growth: see discussion and works cited in Roger J. Vaughan, The Urban Impacts of Federal Policies: Volume 2, Economic Development, prepared under a grant from the Charles F. Kettering Foundation, R-2028-KF/RC (Santa Monica, Calif.: The Rand Corporation, June 1977).

Table 11: Compound Annual Growth Rates of Aggregate Employment by Regions, 1900-1960

	1900-1910	1910-1920	1920-1940	1940-1950	1950-1960
Total U.S.	2.7	0.9	0.4	2.9	1.5
Northeast					
New England	2.0	1.0	-0.5	2.4	1.1
Mideast	2.7	1.2	0.3	2.7	0.4
Midwest					
Great Lakes	2.1	1.6	0.8	3.0	1.3
Plains	1.9	0.3	-0.5	2.0	0.6
Southeast	2.5	0.5	0.3	2.6	1.3
Southwest	6.3	1.1	1.0	3.3	2.2

SOURCE: U.S. Census of the Population, 1900, 1910, 1920, 1930, 1940, 1950, 1960.

Throughout the sixties and seventies, the basic pattern of slow employment growth continued in the industrial Northeast and the Great Lakes region (Table 12). What did happen in the seventies, and what excited a good deal of concern, was the great impact on non-agricultural employment in the Mideast, where employment losses reduced employment to pre-1970 levels. Alternatively, during the sixties and seventies, the Southwest continued to add non-agricultural employees at a greater rate than the nation as a whole, as it has since 1900.

To appreciate the significance of these growth patterns, one need only consider the number of new non-agricultural jobs which the regions would have added if they had grown at the national rate (Table 13). Over the fifteen-year period 1960-1975, slow growth cost the Northeast and Midwest about 3.5 and 1.2 million jobs respectively. Alternatively, because of their rapid growth, the Southeast and Southwest added about 1.2 million non-agricultural employees, while the Mountain and Far West regions benefitted from 4.3 million new jobs. The surprising thing in these considerations is not that the Northeastern and Midwestern regions lost while the Southern regions gained jobs, because they grew at rates different from the national average; rather, it is how closely the gains in the South over the whole fifteen-year period balance the losses in the North. This is not to imply that the South has gained at the loss of the industrial regions, for total employment in the North and Mideast did grow. Rather, it underscores the fact that, over a fairly long period (at least 15 years), there have occurred structural changes in the national economy which have been much more favorable to the South and West (and, as we have seen, to Maryland) than to the manufacturing areas in the northern and eastern regions.

Table 12: Total Nonagricultural Employment , U.S. and Selected Regions, Selected Years 1960-75 (in thousands)

	1960	1965	1970	1971	1972	1973	1974	1975*
Total U.S.	54234.0	60815.0	70920.0	71222.0	73714.0	77229.0	78378.0	76432.0
Northeast	17195.5	18621.7	20860.3	20651.9	20969.6	21185.8	21470.5	20803.0
New England	3697.9	4066.8	4549.9	4493.5	4610.5	4768.5	4837.5	4699.6
Mideast	13497.6	14551.9	16310.4	16158.1	16359.1	16417.3	16633.0	16103.4
Midwest								
Great Lakes	11643.2	12878.5	14593.6	14483.4	14768.5	15389.4	15723.0	15161.5
Plains	4193.3	4623.3	5359.3	5365.9	5583.6	5862.3	6023.3	5938.1
Southeast	9543.6	11289.0	13711.8	14128.9	15079.3	16263.6	16995.5	16449.9
Southwest	3683.4	4239.4	5245.9	5360.3	5679.3	6059.9	6339.1	6389.6

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, States and Areas, 1939-1974 (Washington, D.C.: U.S. Government Printing Office, 1975).

*Data for Utah not included.

Table 13: Average Annual Rate of Increase in Total Nonagricultural Employment, U.S. and Selected Regions, Selected Years 1960-75

	60-65	65-70	70-71	71-72	72-73	73-74	74-75
Total U.S.	2.3	3.1	.42	3.50	4.77	1.48	-2.48
Northeast	1.6	2.3	-1.01	1.54	1.03	1.34	-3.10
New England	1.9	2.3	-1.01	2.60	3.43	1.45	-2.85
Mideast	1.5	2.3	-0.94	1.24	0.36	1.31	-3.18
Midwest	2.0	2.7	-0.52	2.53	4.42	2.33	-2.97
Great Lakes	2.0	2.5	-0.76	1.97	4.20	2.17	-3.57
Plains	2.0	3.0	0.12	4.06	4.99	2.74	-1.41
Southeast	2.4	4.1	2.59	6.73	7.85	4.50	-3.21
Southwest	2.9	4.4	2.18	5.95	6.70	4.61	-0.79

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, States and Areas, 1939-1974 (Washington, D.C.: U.S. Government Printing Office, 1975).

Income

The trends in per capita income growth have been basically similar to those of employment, and sketch out a relatively consistent pattern of rapid growth in the southern regions and slow growth in the northern and eastern regions (Table 14). The significance of the difference can be seen through a comparison of actual growth in per capita income with that which would have occurred had per capita income grown at national rates. Quite simply, in comparison to the national average, the Northeast and Midwest regions lost while the southern regions added to their incomes. Here again the experience of Maryland has been more like that of the South and Southwest than of the North.

Although the relative gain in the Southeast was large and the loss in the Northeast was sizable, the combination of southern high and northern low growth rates relative to the national average far from equalized per capita income. This being the case, it would seem that it would not be too far afield to suggest that, as labor incomes, and therefore labor costs, are lower in the South, a continuation of past employment trends may be expected as a response to labor cost differentials. Indeed, the length of time over which the relative decline of the Northeast and growth of the South have been occurring suggests that at least the underlying causes have been operative for some time. This being the case, it seems that one should look to the long-term changes which have occurred in our basic economic structure for at least a part of the explanation for the regional shifts which are taking place. Moreover, to the extent that current problems are reflective of a cumulative sorting out of basic structural changes, the relatively long period during which they have occurred would suggest that they are well-entrenched, and unlikely to be reversed.

Table 14: Per Capita Personal Income and Annual Average Growth Rates, U.S. and Selected Regions, Selected Years 1950-1975

	1950	1960	1965	1970	1971	1972	1973	1974	1975
Total U.S.	1496	2222	2770	3966	4138	4549	5023	5449	5834
Northeast	1722	2536	3111	4434	4653	5008	5414	5913	6339
New England	1601	2424	2980	4278	4469	4775	5217	5700	6086
Mideast	1756	2566	3147	4474	4704	5074	5470	5974	6411
Midwest	1597	2294	2898	3974	4190	4641	5232	5594	6011
Great Lakes	1666	2383	2999	4079	4306	4766	5294	5730	6131
Plains	1482	2066	2654	3695	3904	4333	5077	5260	5715
Southeast	1024	1615	2119	3202	3411	3853	4308	4689	4926
Southwest	1301	1935	2375	3494	3658	4033	4501	4871	5265

Annual Average Growth Rates

	50-60	60-65	65-70	70-71	71-72	72-73	73-74	74-75
Total U.S.	4.0	4.5	7.5	4.3	9.9	10.4	8.5	7.1
Northeast	4.0	4.2	7.7	4.9	7.6	8.1	9.2	7.2
New England	4.2	4.2	7.5	4.5	6.9	9.3	9.3	6.8
Mideast	3.9	4.2	7.2	5.4	7.9	7.8	9.2	7.3
Midwest	3.7	4.8	6.5	5.5	10.8	12.7	6.9	7.5
Great Lakes	3.6	4.7	6.3	5.5	10.7	11.1	8.2	7.0
Plains	3.8	5.1	6.8	5.6	11.0	17.2	3.6	8.7
Southeast	4.7	5.6	8.6	6.5	12.9	11.8	8.8	5.1
Southwest	4.1	2.3	8.0	4.7	10.2	11.6	8.2	8.1

SOURCE: Survey of Current Business, various issues 1950-1975.

Changes in Maryland's Economic Structure

It could be argued that Maryland, being a border state, is as contiguous to the South as it is to the North; on this ground, it is likely to continue to share in the good fortune which has accrued to the South. However, in terms of its basic industrial structure, it would be difficult to identify Maryland with its southern neighbors.[11] The data in Table 15 compare the relative concentration of employment in each sector in Maryland. In 1940, Maryland's employment was heavily concentrated in industrial and industrially linked activities: manufacturing, transportation, communication, utilities and construction, and government.[12] Alternatively, in 1940, the South was highly specialized in the two sectors, agriculture and basic energy, in which Maryland had relatively small amounts of employment. By 1975, the structure of both Maryland's and the South's economies had changed dramatically. In the South, as indicated by the increase in the concentration measures of all sectors, the marked decline in agriculture has been accompanied by a broad-based diversification of its economy, although its earlier concentration in energy materials was strengthened. Maryland's experience was quite different, and indeed the major change in the structure of its economy was the extreme

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[11]The South consists of Mississippi, Arkansas, Alabama, South Carolina, Kentucky, Georgia, North Carolina, Oklahoma, Tennessee, Louisiana, Texas, Virginia, Florida, West Virginia, and Maryland.

[12]The comparisons in Table 15 are relative measures of employment concentration, i.e., location quotients. These measures are defined as the share of a state's or region's employment in an employment sector divided by the national counterpart. A location quotient with a value greater than one in a sector is generally taken to mean that the area specializes in that sector relative to the nation. Formally, the location quotient is defined as $e_i^r/E^r/e_i^n/E^n$, where e_i^r = state (or regional) employment in sector i; E^r = total employment in the state (or region); e_i = national employment in sector i; and E^n = total national employment.

Table 15: Employment Concentration Measures, Maryland and the South, 1940 and 1975.

	Maryland		South	
Sector	1940	1975	1940	1975
Agriculture	0.57	0.55	1.73	1.00
Basic Energy	0.29	0.11	1.38	1.67
Construction	1.26	1.17	0.96	1.42
Manufacturing	1.12	0.68	0.63	0.90
Transportation	1.27	0.97	0.84	1.02
Communications & Utilities	1.14		0.67	
Wholesale Trade	0.96	1.00	0.81	0.98
Retail Trade	1.01	0.95	0.81	0.99
Finance, Insurance, & Real Estate	1.03	0.98	0.61	0.91
Service	1.10	1.02	0.97	0.99
Educ. Service	0.81		0.91	
Government	1.74	2.52	0.90	1.05

SOURCE: William H. Miernyk, "The Changing Structure of the Southern Economy," a report prepared for the Southern Growth Policies Board Conference on the Future of the South's Economy, Boca Raton, Florida, 12-15 December 1976, p. 17.

increase in the role of government employment, accompanied by decreases in earlier relative concentration in all other sectors except wholesale trade. As indicated above, prior to 1970, federal employment played the major role in government employment in Maryland. Since 1970, however, state and local governments have played an increasingly important role in Maryland's employment structure. Other than in government, the most dramatic change in employment in Maryland was the decline in the manufacturing sector, a sector in which the South has become increasingly concentrated. Overall, the differences in the levels of employment concentration and the changes in them would seem to substantiate the differences in the economic structures of both Maryland and the South,[13] and their adjustment to the changing regional patterns of economic activity.

That the changes in the economic structures of Maryland and the South have been so different should be of no surprise, for, although the state is contiguous to the South, the major growth areas are in fact quite some distance away. Moreover, in terms of transport accessibility, virtually all major northeastern markets are more accessible by truck and rail than the growth areas south of North Carolina and West Virginia. For example, shipping time from Baltimore to Detroit by truck and rail is shorter than to Atlanta, while shipping time to Louisville is 50 percent greater than to Cleveland.[14]

The implication that Maryland's economy is more closely linked with the northern regions than with the South finds verification in the interstate

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[13] More detailed analysis of the structure of industrial relations seems to be required for a full understanding of the implications of Southern Growth for Maryland.

[14] Maryland Dept. of Economic and Community Development, An Economic and Social Atlas of Maryland Statistical Supplement, December 1974, Table G-2, p. 224.

shipment of Maryland produced goods. In fact, Maryland's largest trade volume has been heavily concentrated in the Middle Atlantic states, which, along with the New England and North Central regions, account for the major share of Maryland's interstate trade.[15]

Given the strong trading relations between Maryland and its northern neighbors, it would be expected that the decline experienced in the North would have a dampening influence on Maryland and other states, as northern producers and consumers adjust their purchases in accordance with their economic circumstances. No doubt at least some part of Maryland's sluggish performance, in particular the decline in manufacturing, can be tied to the decline of its northern trading partners. Moreover, as the experience of the North is of a long-term structural change in the economy, the recent decline, including its impact on Maryland, is but a part of a process which no doubt will continue for some time.

Given the long-term nature of the restructuring of the economy, which is reflected in the decline of the nation's northern and eastern regions, it is not possible to specify its full impact on the economy of Maryland. However, it has been estimated elsewhere that the deteriorating position of Maryland as an exporter cost the state about 33,000 manufacturing jobs alone between 1970 and 1976.[16] This number closely matches the above identified loss of potential manufacturing jobs, and serves to verify Maryland's dependence on the northeastern industrial markets, raising the question of whether the state can successfully mitigate the negative impacts which are likely to be

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[15] A more detailed analysis would reveal that the only specific types of products which deviate from the general pattern are those produced by the stone, clay, and glass products industries. See Maryland, Economic and Social Atlas Supplement, op. cit., p. 85.

[16] Maryland Economy Status and Outlook, op. cit., Table LL-3, p. 59.

associated with the decline of the Northeast. In the past, expansion in other parts of the private sector has offset the loss in manufacturing jobs. However, Maryland's growth has been largely the result of the addition of substantial numbers of Maryland residents to the federal, and, more importantly, the state and local government payrolls.

The desirability of bolstering the state's economy against export job losses by continued expansion of the government sectors is a matter about which there is some doubt, and one which will be considered in a later section. Whether the government sectors are likely to do so is a matter about which there should be considerably less doubt, for it would require government employment to grow at fairly high rates. Indeed, in order to offset a one percent loss of jobs in the private sectors, state and local government employment would have to increase by about 4.75 percent, and federal employment of Maryland residents would have to increase by about 8.5 percent. Such rates are not particularly high given the recent rates of expansion of government employment. However, it is because state and local government employment has grown at such high rates in Maryland recently that it is unlikely that it could expand sufficiently to maintain growth in the Maryland economy at rates which have characterized the past decade. Moreover, continued growth of federal employment at the rates of the recent past is unlikely given the apparent trend of decentralization of federal program administration to the state level. Thus, it appears that the potential for Maryland's economic vitality in the future is to be found in the private non-manufacturing activities. Although these sectors have been on the rise recently, they have not been the major components of the economy in either the Baltimore or the Washington suburban areas. Exploitation of the potential of these sectors' growth potential would seem to be of prime importance to the state. This is not to say

that the state should neglect its manufacturing sector; rather, the implications of this discussion are (1) that the importance of non-manufacturing activities to the future of the state should be recognized, and they should be fostered; and (2) that the markets for the state's manufactured products are heavily concentrated in the Northeast and, unless other markets are cultivated, the course of Maryland's economy, at least the manufacturing segments of it, will follow the fortunes of the Northeast regions.

Factors Related to Changes in the Structure of the Economy

By way of introduction to the consideration of the basic factors which underly the changing structure of the economy, a circumstance should be noted which has been so inherent in our history that we often overlook it. That is, the relative shift of population out of the northern and eastern regions which has been ongoing for several decades. A relatively recent change in the pattern of population shifts is the declining birth rate, and the declining rate of urbanization which has accompanied it. This loss of both internal and external sources of growth, accompanied by ever-increasing competition from western and southern population and market centers, has eroded the competitive position of the northern and eastern regions.

Within this context, three other factors have been operative over the long term, and it is from these that the chronic problems stem. They are new production and communication technology, new transportation technology, and rising affluence. With regard to production technology, it has changed in such a way that virtually all productive activities have become increasingly dependent on general coordinating activities, i.e., producers of services, communications, energy transport, and trade; and much less dependent on basic

material inputs.[17] In the context here, the importance of this consideration is twofold. First, the economic nature of the coordinating activities is such that they can be produced in virtually all middle size and large urban centers. Second, the historical strength of the northern and eastern seaboard regions has been due to their development as the industrial center of the nation and their predominance as producers of materials, parts, equipment, and semifinished or intermediate products. As industries have become less dependent on this type of input, and more dependent on coordinative activities, the range of feasible locations for new or branch plants and/or new firms is much broader than formerly has been the case. Simply put, the nature of technological change has altered the industrial regions' ties to economic activities.

The improvement in communications technology has also fostered the redistribution of economic activity across the nation. Communications developments have reduced the benefits of physical proximity to input supplies, markets, and specialized services. Since the older industrial areas of the country, and particularly their metropolitan areas, have in a very real sense specialized in quick communication, the rapid advances in communication technology have contributed to the regional shifts of economic activities.[18]

The second consideration has to do with the nature of interregional transportation. Prior to the development of the interstate highway system,

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[17]Anne P. Carter, "Incremental Flow Coefficients for a Dynamic Input-Output Model with Changing Technology," in Structural Interdependence and Economic Development, edited by Tibor Barna (New York: St. Martin's Press, 1963), pp. 277-302.

[18]David L. Birch, The Economic Future of City and Suburb. Committee for Economic Development Supplementary Paper No. 30 (New York: Committee for Economic Development, 1970); and Raymond Vernon, The Changing Economic Function of the Central City (New York: Committee for Economic Development, 1959).

the industrial belt not only benefitted from its proximity to the nation's largest market, it also had the most extensively developed system of transportation, connecting all segments of the vast midwestern and northeastern market. The rapid development of the world's most extensive highway system and the associated growth in truck transportation, and the accompanying decline of the rail and water transport networks, without a doubt narrowed the transit cost advantage from which the industrial belt has so long benefitted.

The long run decline in transportation costs brought about by the development of the auto and the truck, as well as the use of such techniques as piggybacking of truck and railroad freight, has stimulated the dispersion of economic activity. The historic concentration of manufacturing in the Northeast and Midwest, for example, has been substantially eroded as the ease of reaching northeastern and midwestern markets from the rest of the nation has increased. Simultaneously, the ease of transporting resources and inputs from the Northeast and Midwest to manufacturing centers located elsewhere has also increased.

Although perhaps not of a fundamental nature, an additional element of the transportation system which appears to work against Maryland is imbedded in the legal conventions governing freight rates imposed on interregional shipments. In essence, rate charges for the interstate shipment of goods by rail, water, and truck are set on a point of origin basis.[19] Generally, the rate structure is such that shipments destined for the North are more expensive if they originate in Maryland than if they originate in southern states, as are shipments to the South. While there are a number of specific commodities which do not conform to this general pattern, particularly when shipped by water or

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[19] For a more detailed discussion of these considerations, see Market Analysis: The Competitive Posture of Holabird Business and Industrial Center - The South Atlantic Market Area, op. cit.

WOULD DEREGULATION HELP?

rail, the high cost of truck shipments originating in Maryland relative to the South is almost universal.

A final factor in the decline of the Northeast is the role of rising affluence. As incomes rise, amenities such as climate become more important in individual and business location decisions. Sunshine is a superior good, and most people want to consume more of it when their income permits.

These fundamental causes often act to reinforce each other. By their nature, they are essentially irreversible, and it is difficult to identify a set of public policies which would significantly affect their impact on regional growth patterns, let alone the economic fortunes of a particular state.

Cyclical Impact

It has been fairly well established that national business cycles affect the levels of state economic activity, and that the timing of regional business cycles is roughly coincident with national cycles. However, there are distinct and significant differences among regions and states in the timing and impact of the phases of the business cycle.[20] The available evidence indicates that Maryland's recovery has been particularly slow, lagging behind all but three states.[21] Whether the slow recovery reflects simply a delayed recovery or more serious problems is, at this point, unknown. However, the available evidence seems to indicate that recent cycles have been particularly harmful to the Maryland economy, on at least two counts. First, it has been well established that the areas which provide the major market for

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[20]Franklin T. James, "Recession and Recovery in Urban Economies: A Summary of Recent Experience" (Washington, D.C.: The Urban Institute, The Land Use Center, March 20, 1976). Report to be published in a compendium entitled Dynamics of Urban Employment Location, edited by Franklin James and Raymond Struyk.

[21]Robert Bretzfelder, "The Cyclical Recovery in State Personal Income," in U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, Vol. 56, #10, October 1976, pp. 21-22, 26-27.

Maryland's products, i.e., the major industrial states of the North and East, went deeper into the recession than the rest of the economy, and recovered at a much slower rate.[22] Moreover, it appears that the recession has precipitated a permanent reduction in these economies and, if that is the case, a permanent reduction in the size of the major markets for Maryland's products. In addition, it has been well established that the older industrial central cities, and in particular Baltimore, were badly hurt by the 1970 recession.[23] At this point, the evidence is not sufficient to establish that recent business cycles have dealt a permanent blow to the Maryland economy. However, the process of slowdown or shutdown caused by an economic slump leads many businesses, particularly those which operate branch plants and cater to national or international markets, to re-evaluate their locational choices. All too frequently, from the point of view of the northern and eastern seaboard regions, buinesses which closed their doors during recession reopen them in the South or West during the recovery.[24]

Labor Costs

In considering an area's business climate, it is common to compare wage rates. Until recently, Maryland stood this type of test fairly well: in both 1965 and 1970, average manufacturing wage rates in Maryland, although slightly higher than in the U.S., did not differ greatly (Table 16). However,

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[22] K. Nelson and C. Patrick, Decentralization of Employment During the 1969-1972 Business Cycle: The National and Regional Record (Oak Ridge, Tenn.: Oak Ridge National Labs, 1975).

[23] Franklin T. James, "Recession and Recovery...," op. cit.

[24] Between 1970 and 1974, the number of manufacturing firms in Maryland declined by 170, or about 40 percent. As these numbers show net changes, new firms minus those that were closed down or absorbed by other firms, they do give only a rough approximation of the number of firms which have closed their doors as a result of Maryland's decline in manufacturing activity.

Table 16: Wage Rates in Maryland and the United States in Manufacturing (average hourly earnings)

	Maryland	United States
1965	$ 2.62	$ 2.61
1970	3.40	3.36
1971	3.62	3.57
1972	3.92	3.81
1973	4.22	4.08
1974	4.62	4.41
1975	5.03	4.72[a]

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, 1977, Bulletin 1370-12, Employment and Earnings, States and Areas, 1939-75.

[a]Based on an average of January to June monthly figures.

through the seventies, wage rates increased more rapidly in Maryland. As a result, at mid-decade, Maryland's average manufacturing wage exceeded the national average by about 6.5 percent, whereas in 1970 the difference was closer to 1.5 percent.

Further substantiation of Maryland's high labor cost can be obtained from a comparison of the earnings of production workers among the country's major labor market areas. Here again, Maryland, or more specifically the state's major labor market area, Baltimore, stands out (Table 17). At mid-decade, production worker earnings in the Baltimore area exceeded the average of all the southern areas by more than 15 percent. In addition, it appears that Maryland is at a particular disadvantage relative to the southern labor markets. Production worker earnings not only are higher in Baltimore than in the South, they appear to be increasing more rapidly than in most southern labor markets.

It would be a mistake, however, to attribute the decline in manufacturing employment to the increasing average wage, for the increase in average wages could as easily be a result of employment decline as a cause. Which is the case depends on the average wage of those who have become unemployed. As it is likely that low-skilled and low wage rate employees are laid off before the more technically sophisticated or the front office management types who receive higher wages, the rapid increase in Maryland's wage rate may simply reflect the changing composition of employment which occurs during recession.

Two more fundamental limitations of wage rate comparisons are their failure to consider other costs associated with maintaining a labor force, e.g., workmen's compensation, insurance costs, and the productivity of the labor force. The available evidence indicates that historically the productivity

Table 17: Average Hourly Earnings for Production Workers on Manufacturing Payrolls for Selected Metropolitan Areas, 1974-75.

Metropolitan Area	February 1974	February 1975	Percent Change
Baltimore	$ 4.53	$ 5.07	+12%
Washington, D.C.	5.02	5.60	+12
Wilmington, Del.	4.80	5.47	+14
Richmond	4.01	4.55	+13
Newport News	NA	NA	--
Norfolk	3.54	3.87	+ 9
Greensboro	3.43	3.78	+10
Charlotte	3.14	3.43	+ 9
Wilmington, N.C.	NA	NA	--
Greenville	3.20	3.45	+ 8
Charleston, S.C.	3.49	3.90	+12
Atlanta	4.08	4.40	+ 8
Savannah	3.90	4.38	+12
Jacksonville	4.15	4.63	+12
Orlando	3.68	4.17	+13
Tampa	3.84	4.16	+ 8
West Palm Beach	4.21	4.51	+ 7
Fort Lauderdale	3.62	4.00	+10
Miami	3.38	3.65	+ 8
Metro Average	$ 3.88	$ 4.29	+11%

NA = Not available.

SOURCE: Market Analysis: The Competitive Posture of Holabird Business and Industrial Center - the South Atlantic Market Area. Technical Report, prepared by O'Malley and Associates for the Baltimore City Dept. of Planning, 1975.

of manufacturing employees in Maryland has been greater than that of all regions save the West South Central (Table 18).[25] However, the productivity differential generally has been narrowing, and, in 1975, labor productivity in Maryland, at $22,979, fell below the national average of $24,086.[26] The risks of basing judgment on a single observation preclude the conclusion that labor productivity in Maryland has fallen below the national average. However, the steady narrowing of the difference between Maryland and other areas of the country is of such duration that it would be difficult to ignore the implication that Maryland's earlier labor productivity advantage is being slowly eroded.

The import of this decline in relative productivity can only be determined in conjunction with labor cost. At least conceptually, it is possible that relative labor cost could have changed in such a way that Maryland could hold a competitive edge in terms of productivity per dollar of labor cost. However, it does not appear that Maryland has such a competitive advantage. Labor cost per employee in Maryland is higher than the national average (Table 19), and productivity per dollar of labor cost in Maryland is below the national average. Indeed, the productivity per dollar of labor cost differential between Maryland and the national average is greater than both the corresponding wage rate differential and the productivity differential.

These differences are important, for they appear to reinforce the conclusion that could be tentatively drawn from an analysis of wage rate differentials, i.e., when it comes to labor force considerations, Maryland appears to be at a disadvantage relative to other areas, particularly those in

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[25] Comparison of employee productivity is greatly hampered by the lack of a comprehensive measure of productivity. The measure employed here, value added per employee, is one often used measure of productivity.

[26] Annual Survey of Manufacturers, M75(AS-1).

Table 18: Value Added Per Employee in Maryland and Selected Regions, Selected Years 1965-1975

	Maryland	South Atlantic[a]	New England[b]	Middle Atlantic[c]	East South Central[d]	West South Central[e]
1965	$12487.84	$10962.10	$10834.28	$11974.07	$11593.40	$13893.02
1970	14933.55	13610.58	13843.86	NA	14649.80	17237.92
1971	16821.54	15082.04	14731.92	16617.40	15976.02	18704.16
1972	18415.10	16190.94	16515.34	17822.83	16999.04	19858.14
1973	19958.62	NA	NA	NA	NA	NA
1974	22933.28	NA	NA	NA	NA	NA
1975	22978.64	NA	NA	NA	NA	NA

SOURCES: U.S. Bureau of the Census, Annual Survey of Manufacturers 1975, South Atlantic Table 1;
U.S. Bureau of the Census, 1972 Census of Manufacturers.

[a]South Atlantic States include Delaware, Maryland, District of Columbia, Virginia, West Virginig, North Carolina, South Carolina, Georgia, and Florida.

[b]New England States include Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticutt.

[c]Middle Atlantic states include New York, New Jersey, and Pennsylvania.

[d]East South Central states include Kentucky, Tennessee, Alabama, and Mississippi.

[e]West South Central states include Arkansas, Louisiana, Oklahoma, and Texas.

Table 19: Labor Cost Per Employee and Value Added Per Dollar of Labor Cost, Maryland and the U.S., 1974-75.

	Labor Cost Per Employee		Value Added/Dollar of Labor Cost	
	Maryland	U.S.	Maryland	U.S.
1974	$12,860	$10,922	1.78	2.087
1975	14,001	13,174	1.64	1.83

SOURCE: Ibid.

the South.

Energy

It has become commonplace to identify the energy crisis as one of the major causes of recent economic problems. While there can be little doubt that energy shortages and increasing costs of energy have affected the national economy, whether they had a particularly heavy impact on Maryland cannot be so easily answered.

In the first instance, the fact that Maryland has placed a moratorium on new industrial gas customers seems to reduce its ability to compete for new industry. However, Maryland is not alone, as it appears that only one out of every three utility companies in the nation is accepting new industrial gas customers (Table 20). Moreover, only about 15 percent of those accepting customers do so on an uninterruptible basis. In this light, the operations of Maryland's utilities do not appear to be greatly at odds with nationwide practices.

There is a difference in the number of states in which no new industrial customers are accepted. Only in 17 other states are new gas hookups not available anywhere in the state. More importantly, a complete moratorium on new industrial customers exists in only two of the northeastern states, Maryland and Pennsylvania, although new customers are being accepted in only four of the southern states: Alabama, Florida, Georgia, and South Carolina.

While these data are far from definitive, they seem to imply that Maryland's moratorium on new industrial gas customers would weaken the state relative to states in the northeastern region, while not greatly damaging its position relative to most, but certainly not all, southern states. Given the force of the factors underlying the long-term patterns of northern decline

Table 20: Natural Gas Availability

	Number of Utilities			
	Surveyed	Accepting New Customers	Accepting Industrial Customers	Accepting Interruptible Customers
Maryland	3	0	0	0
Northeast				
Connecticutt	6	6	6	6
Delaware	2	0	0	0
Maine	1	1	1	1
Massachusetts	13	5	5	5
New Hampshire	6	6	6	0
New Jersey	4	2	2	0
New York	13	3	3	0
Pennsylvania	11	1	0	1
Rhode Island	4	4	4	4
Vermont	7	7	7	1
Southeast				
Alabama	111	5	5	0
District of Columbia	1	0	0	0
Florida	62	62	62	0
Georgia	3	3	2	2
Kentucky	4	0	0	0
Mississippi	3	3	0	0
North Carolina	3	3	0	0
South Carolina	3	3	1	2
Tennessee	101	NA	NA	NA
Virginia	15	12	0	0
West Virginia	5	0	0	0
North Central				
Illinois	7	6	3	0
Indiana	8	1	0	0
Iowa	11	11	11	NA
Kansas	5	5	0	0
Michigan	3	3	1	0
Minnesota	21	17	2	14
Missouri	10	1	1	1
Nebraska	NA	NA	NA	NA
North Dakota	3	2	1	1
Ohio	8	0	0	0
South Dakota	4	3	0	0
Wisconsin	7	6	0	5
Northwest				
Alaska	3	3	2	1
Colorado	6	6	0	3
Idaho	2	2	2	0
Montana	2	2	0	0
Oregon	3	3	3	3
Utah	2	2	2	1
Washington	4	4	4	4
Wyoming	5	5	3	3

(continued....)

Table 20 (continued)

	Number of Utilities			
	Surveyed	Accepting New Customers	Accepting Industrial Customers	Accepting Interruptible Customers
Southwest				
Arizona	13	0	0	0
Arkansas	4	3	0	3
California	6	6	6	6
Hawaii	NA	NA	NA	NA
Louisiana	46	39	0	0
Nevada	3	3	3	3
New Mexico	6	0	0	0
Oklahoma	4	4	1	1
Texas	4	4	4	4

SOURCE: Maryland Department of Economic and Community Development, The Maryland Economy: Status and Outlook 1976-1977, Table I-2, p. 29.

and southern growth, it is unlikely that Maryland's failure to accept new industrial gas customers has severely affected its economic performance. Still, there can be no doubt that had new gas hookups been available Maryland's economy would not have been worse off.

The situation with regard to the actual costs of energy consumed appears to be much clearer, at least with regard to industrial customers.[27] In fact, in 1975, the average cost of energy in Maryland exceeded the national average by 35 percent, and in only nine states was energy more expensive.[28] Moreover, the situation was even more extreme in Baltimore, where costs of energy use exceeded the national average by 45 percent (Table 21). Equally important is the fact that energy costs in Maryland appear to have increased since 1971 to a much greater extent than in most other areas of the country.

What these data trace out is a pattern of high and rapidly increasing energy cost in Maryland, as in the northeastern regions of the country. For the most part, energy costs in the South are both below those in Maryland and increasing at a lower rate. In large part, differences in energy costs among areas can be explained by the mix of fuel used in the area. Generally, those areas where natural gas accounted for the majority of fuel consumed have lower energy costs than those where consumption was concentrated in fuel oil and purchased electrical energy.[29] This being the case, it would appear that Maryland's moratorium on new industrial gas hookups will force a greater dependence

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[27]The reader is cautioned to note that the discussion here is limited to energy cost and not to electric or gas rates. The energy cost data are based on the types of fuel and the costs of the various fuels consumed by manufacturers. U.S. Department of Commerce, Bureau of the Census, Annual Survey of Manufacturers 1975: Fuels and Electric Energy Consumed, M75(AS)-4, p. 11.

[28]Higher energy costs in Baltimore than in the rest of the state are in part due to local government taxation of energy use.

[29]U.S. Department of Commerce, Bureau of the Census, Annual Survey of Manufacturers 1975: Fuels and Electric Energy Consumed, M75(AS)-4, p. 18.

Table 21: Energy Costs to Manufacturers in the 60 Largest Energy-Consuming Metropolitan Areas, Ranked by 1975 Unit Cost, 1975, 1974, and 1971.

		Cost per 1,000 kilowatt-hour equivalents (dollars)						
		Purchased fuel & electric energy		Purchased fuels			Cost of purchased fuel (1971=100)	
Rank	SMSA	1975	1974	1975	1974	1971	1975	1974
1	New Orleans, LA.	2.14	1.69	1.42	1.07	.76	186	141
2	Tulsa, OK	3.14	2.74	2.18	1.84	.87	251	211
3	Beaumont-Port Arthur - Orange, TX	3.32	1.93	2.98	1.58	.79	377	200
4	Galveston-Texas City, TX	3.36	1.89	3.18	1.76	.70	454	251
5	Corpus Christi, TX	3.36	2.15	2.58	1.75	.62	416	282
6	Baton Rouge, LA	3.44	2.87	2.67	2.05	.89	300	230
7	Little Rock-North Little Rock, AR	3.55	2.61	2.71	2.05	1.15	236	178
8	Lake Charles, LA	3.76	2.89	3.42	2.59	.85	402	305
9	Houston, TX	4.36	2.48	3.62	1.95	.82	441	238
10	Denver, CO	4.99	4.19	2.79	2.27	1.30	215	175
11	Memphis, TN-AK-MS	5.16	3.63	3.05	2.04	1.34	228	152
12	Portland OR-WA	5.38	3.76	5.13	3.54	1.82	282	195
13	Parkersburg-Marietta, WV-OH	5.38	4.03	4.02	3.12	NA	NA	NA
14	San Francisco-Oakland, CA	5.59	3.87	4.08	2.62	1.50	272	175
15	Charleston, WV	5.60	3.86	3.96	2.82	1.76	225	160
16	Akron, OH	5.66	3.78	3.84	2.51	1.41	272	178
17	Mobile, AL	5.69	4.48	4.13	3.44	1.16	356	297
18	Birmingham, AL	5.73	4.11	4.02	3.05	2.08	193	147
19	Kansas City, MO-KS	5.76	3.91	3.23	2.04	1.26	256	162
20	Gary-Hammond-East Chicago, IN	5.76	4.57	4.73	3.92	1.86	254	211
21	Seattle-Everett, WA	6.06	4.12	5.49	3.54	1.80	305	197
22	Dallas-Ft. Worth, TX	6.08	4.00	3.53	2.09	1.09	324	192
23	Louisville, KY-IN	6.10	4.26	4.10	2.72	1.44	285	189
24	Chattanooga, TN-GA	6.15	4.23	3.97	2.97	1.79	222	166
25	St. Louis, MO-IL	6.19	4.81	3.86	2.88	1.74	222	166
26	Canton, OH	6.36	4.53	4.48	3.30	1.92	233	172
27	Riverside-San Bernadino-Ontario, CA	6.44	4.93	3.81	2.80	1.57	243	178
28	Youngstown-Warren,OH	6.77	5.33	5.12	4.24	1.85	277	229
29	Syracuse, NY	6.77	5.75	4.75	4.34	2.21	215	196
30	Pittsburgh, PA	6.80	4.95	5.34	3.99	1.74	307	229
31	Huntingdon-Ashland, WV-KY-OH	6.94	5.33	5.89	4.53	2.66	221	170
32	Hamilton-Middletown, OH	7.06	5.04	5.16	3.78	1.84	280	205
33	Milwaukee, WI	7.12	5.51	4.22	3.27	2.02	209	162
34	Augusta, GA-SC	7.22	6.23	4.72	4.11	2.07	228	199
35	Evansville, IN-KY	7.33	5.40	4.70	3.05	1.47	320	207

(continued...)

Table 21 (continued)

Rank	SMSA	Cost per 1,000 kilowatt-hour equivalents (dollars)					Cost of purchased fuels (1971=100)	
		Purchased fuel & electric energy		Purchased fuels				
		1975	1974	1975	1974	1971	1975	1974
36	Toledo, OH-MI	7.34	4.62	4.75	3.11	1.72	276	181
37	Allentown-Bethlehem-Easton, PA-NJ	7.42	6.07	5.57	4.54	2.16	258	210
38	Rochester, NY	7.47	6.30	5.50	4.40	2.23	247	197
39	San Jose, CA	7.61	5.33	4.37	2.76	1.57	278	176
40	Steubenville-Weirton, OH-WV	7.62	4.71	6.56	3.98	NA	NA	NA
41	Minneapolis-St. Paul, MN-WI	7.83	5.31	4.89	3.05	1.87	261	163
42	Cincinnati, OH-KY-IN	7.85	5.58	5.09	3.58	1.84	277	195
43	Indianapolis, IN	7.86	5.96	4.83	3.80	1.86	260	204
44	Chicago, IL	7.95	6.17	5.30	4.22	2.10	252	201
45	Albany-Schenectady-Troy, NY	7.97	6.50	6.01	5.28	2.51	239	210
46	Buffalo, NY	8.04	6.31	6.50	5.17	2.41	270	215
47	Columbus, OH	8.10	5.64	4.94	3.53	1.82	271	194
48	Cleveland, OH	8.14	6.88	5.93	4.98	2.21	268	225
49	Dayton, OH	8.50	6.02	5.07	3.42	2.00	254	171
50	Detroit, MI	8.56	6.42	5.18	3.90	2.23	232	175
51	Los Angeles-Long Beach, CA	8.64	6.35	3.81	2.67	1.62	235	165
52	Philadelphia, PA-NJ	9.09	7.49	6.04	5.24	2.07	292	253
53	Atlanta, GA	9.18	6.02	4.18	2.88	1.91	219	151
54	Baltimore, MD	9.42	7.83	5.98	5.26	2.08	288	253
55	Greenville-Spartanburg, SC	9.81	7.44	5.56	4.14	1.82	305	227
56	Wilmington, DE-NJ-MD	9.95	7.28	6.39	4.76	2.87	223	166
57	Newark, NJ	10.08	8.18	6.93	5.48	2.40	289	228
58	New Brunswick-Perth Amboy-Sayreville, NJ	10.45	9.08	7.10	6.23	NA	NA	NA
59	New York, NY-NJ	11.73	9.47	6.67	4.95	2.20	303	225
60	Boston, MA	12.05	10.12	6.94	5.87	2.29	303	256
	United States	6.57	4.91	4.40	3.29	1.63	270	202

NA = Not Available

SOURCE: U.S. Bureau of the Census, Annual Survey of Manufacturers, 1975: Fuels and Electric Energy Consumed, M75(AS)-4, Table H, pp. 16-17.

of its business on higher cost fuels.

When gauged against the costs in other areas, electricity tends to be somewhat less expensive in Maryland than in the New England and Middle Atlantic states (Table 22). However, in comparison with other regions, and in particular with the southern and western regions, electricity bills in Maryland are high regardless of the type of customer. Regional averages can be misleading, but this does not appear to be the case for electricity costs. To be sure, commercial and industrial electric bills are higher in Georgia than in Maryland, as are residential bills in Virginia and bills for high use customers in Florida, but residential bills in Pennsylvania are lower than in Maryland.

It would seem, then, that there is little doubt that differences in the levels and increases of energy cost have served to reinforce the long-term trends which have been so counter to the continued growth of the Northeast and Maryland.

Taxation

Differences in the levels of state and local government taxation and the burden they impose are frequently cited as a factor deterring business expansion and/or leading to business relocation. Historically, taxes in the industrial Northeast and Midwest have been thought to be higher than those in the South. Indeed, when own source revenues as percent of personal income are examined (Table 23), the northern and eastern states do appear to impose heavier public sector burdens on their populations than do the southern states. Thus, it is not surprising that in Maryland, as in most northeastern states, tax burdens are high relative to those in most areas of the South. What is surprising is that, in Maryland, tax burdens not only exceed the U.S. median, but they are

Table 22: Weighted Average Electric Bills for Residential, Commercial, and Industrial Service for Maryland and Geographic Regions

	Residential		Commercial		Industrial	
	250 kwh	1000 kwh	1500 kwh	10000 kwh	30000 kwh	200000 kwh
Maryland	$14.06	$38.06	$92.15	$491.04	$1411.00	$7958.00
New England	14.96	42.98	108.96	496.94	1377.00	8375.00
Middle Atlantic	17.15	52.46	148.53	687.92	2057.00	13084.00
East North Central	12.04	35.42	85.78	443.74	1297.00	7698.00
West North Central	11.93	34.73	82.33	402.38	1113.00	6797.00
South Atlantic	12.62	37.24	85.97	456.78	1302.00	7871.00
East South Central	9.65	28.47	56.77	314.00	903.00	5614.00
West South Central	11.30	31.64	74.49	380.83	1066.00	6071.00
Mountain	11.15	31.38	75.95	391.83	1094.00	6186.00
Pacific	10.25	31.88	71.53	365.44	1039.00	6187.00
U.S. Average	12.85	38.15	94.68	468.71	1354.00	8224.00

SOURCE: U.S. Federal Power Commission, Typical Electric Bills 1977, FPC R90 (Washington, D.C.: U.S. Government Printing Office, 1977), pp. xii, xiii, xv, xx, xxi, xxii, xxv, xxvi.

Table 23: A Comparison of Tax Burdens and Own Source Revenues as a Percent of Personal Income

State	Own-Source Taxes as a percentage of Income, 1975[a]	Average Annual Rate of Change in Tax Effort 1964-75 (Percent per Year)
United States Median	11.10	1.033
New England		
Maine	12.30	1.486
New Hampshire	10.25	1.565
Vermont	14.67	1.873
Massachusetts	13.86	2.935
Rhode Island	11.45	1.854
Connecticutt	10.36	1.769
Mideast		
New York	16.17	3.069
New Jersey	11.18	2.670
Pennsylvania	11.13	2.134
Delaware	11.17	2.690
Maryland	11.70	2.536
District of Columbia	10.23	2.196
Great Lakes		
Michigan	11.36	1.186
Ohio	9.46	1.080
Indiana	10.59	1.033
Illinois	11.17	2.408
Wisconsin	13.19	0.906
Plains		
Minnesota	13.41	1.185
Iowa	10.98	-0.023
Missouri	9.88	1.344
North Dakota	10.69	-1.031
South Dakota	11.10	-0.895
Nebraska	10.10	0.761
Kansas	10.27	-0.456
Southeast		
Virginia	10.14	2.203
West Virginia	11.39	1.333
Kentucky	10.59	1.737
Tennessee	9.56	0.382
North Carolina	10.18	0.774
South Carolina	9.96	0.989
Georgia	10.32	1.247
Florida	9.59	-0.433
Alabama	9.34	0.472
Mississippi	11.33	0.697
Louisiana	12.14	0.938
Arkansas	9.10	0.042

Table 23 (continued)

Southwest		
Oklahoma	9.61	-0.157
Texas	9.67	0.459
New Mexico	12.22	0.791
Arizona	12.71	0.774
Rocky Mountain		
Montana	11.74	0.284
Idaho	10.39	-0.270
Wyoming	12.02	0.754
Colorado	10.97	-0.090
Utah	10.81	0.082
Far West		
Washington	11.42	0.908
Oregon	11.44	0.927
Nevada	12.20	1.778
California	13.82	1.629
Alaska	10.35	2.879
Hawaii	13.72	2.572

SOURCE: John Ross and John Shannon, Measuring the Fiscal "Blood Pressure" of the States - 1964-1975 (Washington, D.C.: Advisory Commission on Intergovernmental Relations, February 1977), Table 1, pp. 4-5.

higher than those in all but five states in the industrial Great Lakes and Northeast regions.[30] Clearly, at mid-decade, Maryland stood out among its northern and southern neighbors as a high tax burden state.

The story does not stop there, for, unlike many of its northern neighbors, it is only since 1964 that Maryland has moved from a low to a high and rising tax burden state.[31] In fact, in only six of the fifty states have tax burdens increased more rapidly than in Maryland. Of more than passing interest is the fact that none of these states whose tax burdens have grown more rapidly than Maryland's is in the South. Moreover, two of the northern states, New Jersey and Delaware, whose tax burdens have grown more rapidly than Maryland's, at mid-decade still did not impose taxes as heavily as did Maryland.

Regardless of the desirability or necessity of Maryland's continuing to increase taxes at the recent rapid rate, there is a question of whether it has the capacity to carry added tax burdens. Recent study has indicated that Maryland has utilized its tax capacity at a very high rate (Table 24). Indeed, Maryland imposed taxes to the extent that, at the beginning of 1976, only 3.6 percent of its tax capacity was unutilized. As the sales tax was increased during 1977, there is little doubt that, in 1978, taxation in Maryland even more closely approached its capacity level.

Maryland is not alone when it comes to high rates of utilization of its taxable capacity. In fact, in 1975, nine other states made greater use of their taxable capacity.[32] It is significant, however, that six of these states

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[30] See Table 23.

[31] John Ross and John Shannon, Measuring the Fiscal "Blood Pressure" of the States - 1964-1975 (Washington, D.C.: Advisory Commission on Intergovernmental Relations, February 1977), p. 12.

[32] See Table 24.

Table 24: Utilization of State and Local Government Tax Capacity by State and Region, 1975

State & Region	% of Capacity Unutilized
New England States	--[a]
Connecticut	12.4
Maine	1.9
Massachusetts	--
New Hampshire	12.8
Rhode Island	6.6
Vermont	--
Middle Atlantic States	--
Delaware	19.8
New Jersey	7.5
New York	--
Pennsylvania	14.9
North Central States	9.3
Illinois	6.5
Indiana	10.6
Iowa	4.8
Kansas	15.6
Michigan	7.3
Minnesota	--
Missouri	18.6
Nebraska	15.1
North Dakota	11.8
Ohio	23.4
South Dakota	9.2
Wisconsin	--
Southern States	17.5
Alabama	24.6
Arkansas	23.2
Florida	21.4
Georgia	15.0
Kentucky	15.2
Louisiana	14.6
*Maryland	3.6
Mississippi	8.9
North Carolina	15.7
South Carolina	17.1
Tennessee	20.3
Texas	21.9
Virginia	16.1
West Virginia	13.4
Mountain States	11.2
Arizona	--
Colorado	10.7
Idaho	14.1
Montana	7.4
Nevada	8.4
New Mexico	9.5

Table 24 (continued)

State & Region	% of Capacity Unutilized
Oklahoma	22.0
Utah	14.0
Wyoming	17.1
Pacific States	--
Alaska	17.6
California	--
Hawaii	--
Oregon	4.4
Washington	5.7
District of Columbia	12.8
All States, including District of Columbia	4.6

[a]Dashes indicate that the state or region is operating at or above capacity.

SOURCE: Kenneth E. Quindry, State and Local Revenue Potential, 1975 (Atlanta, Georgia: Southern Regional Educational Board, 1976), Table 21, pp. 93, 95.

are located in troubled northern and eastern sectors of the country, while none is located in the South or Southwest. Indeed, most southern states had underutilization rates three to five times lower than Maryland's.

Given the high and rapid increases in tax burdens associated with the high rate at which Maryland has exploited its tax capacity, the temptation is to attribute the state's sluggish economic performance to the high taxes. However, the temptation must be resisted, because a closer look at Maryland's system of taxation reveals an apparently favorable business tax climate.

Indeed, with the exception of Baltimore City, for firms in many types of industry, location in Maryland seems to be associated with lower tax burdens than location in a variety of other states. Even in the case of Baltimore, business tax burdens appear generally low for most types of activities in comparison with other big cities.[33] Only in retail and wholesale trade are Baltimore tax burdens relatively high. However, Baltimore's competitive position will be greatly improved as the inventory tax is phased out.[34]

These findings, coupled with the fact that sophisticated analysis has yet to establish that overall taxes play anything but a minor role in business location decisions, would seem to question any attempt to tie taxation to the slowdown in Maryland's economy.[35] Be that as it may, most analysts generally agree that after the broad regional considerations related to markets, materials,

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[33]Chamber of Commerce of Metropolitan Baltimore, The Business Tax Climate in Maryland. A report of the Commission on Governmental Efficiency and Economy, March 8, 1977. Table 1, p. 8.

[34]Ibid., Table 3, p. 10.

[35]Daniel H. Garnick, "The Northeast States in the Context of the Nation," paper prepared for the Conference on the Economic Future of the Northeast States, sponsored by the Joint Center for Urban Studies of MIT and Harvard University and the World University of the World Academy of Arts and Sciences (Cambridge, Mass.: 19 January 1977).

and labor, taxes do play a role in site location.[36]

Aside from any direct effects of the levels of business taxes, personal taxation may have affected, or deterred, the state's economic growth. It is not that personal taxes have a direct effect on employment growth. Rather, it may be that decisions of business executives, because of the wide latitude they may have in plant site locations, include considerations of personal taxes. If this is the case, and there is some recent analysis which substantiates an inverse relation between slow growth and personal taxes,[37] then the level of personal rather than business taxes should be of interest.

The relatively high overall level of taxation in Maryland, coupled with what appears to be a relatively low business tax burden, would seem to imply that the personal tax burden in Maryland is high. This implication has been substantiated elsewhere,[38] although a link between Maryland's tax burdens and its economic performance has yet to be investigated.

Whether Maryland's state and local tax structure, or some elements of it, reduce the state's growth potential would seem to be an important question given the changing structure of the state's economy. While it is much beyond the scope of this analysis, a full consideration of Maryland's tax structure seems to be an urgent need at this time.

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[36]Roger J. Vaughan, The Urban Impacts of Federal Policies: Vol. 2, Economic Development (Santa Monica, Calif.: The Rand Corp., June 1977), p. 41.

[37]Daniel H. Garnick, "The Northeast States...," op. cit.

[38]David Greytak, "Personal Taxes Compared Among Eight States," a paper prepared for the Task Force on State Economic Development of the Center for Metropolitan Planning and Research, 18 October 1977 (unpublished).

FISCAL OUTLOOK

In this section, we first explore the position of Maryland state and local governments relative to certain other states, and then consider the state's fiscal outlook. In the comparative analysis, the focus is on Maryland's position relative to seven neighboring and competitive states. The burdens of state and local government revenue raising activities are explored first. This is followed by an analysis of state and local government expenditure patterns. Here the analysis proceeds in more detail, for expenditure levels in large measure set revenue needs, and thereby exert influence on the levels of contributions which each state's population must make to the coffers of state and local government.

Comparative State and Local Government Revenues

We have seen that, during the seventies, Maryland increased its share of national fiscal activity. As a result, the amount of revenues raised by the state and local governments in Maryland relative to both its population and its income stood above the comparable national averages at mid-decade (Table 25). In 1975, Maryland's governments raised roughly $95 per person more than is the case nationwide. In terms of the amount of their personal income which is allotted to state and local governments, Marylanders do not differ from the national average.

In comparison to some of its neighboring and competitive states, however, the burdens of the public sector in Maryland are relatively high. In fact, in six of the seven states with which Maryland is compared, the burdens of state and local government finance are not only below those of Maryland, but are substantially below the national average. This would seem to indicate clearly

Table 25: State and Local Government Own Source Revenues, Per Capita and Per $1000 of Personal Income, 1976

	Per Capita	Per $1000 of Personal Income
Maryland	$1,029.90	$160.85
West Virginia	750.51	154.13
Virginia	785.86	137.63
North Carolina	676.05	136.96
South Carolina	692.01	151.44
Delaware	1,074.93	160.08
Pennsylvania	822.75	138.83
Ohio	781.88	133.70
U.S. Average	$934.44	$159.53

SOURCE: U.S. Bureau of the Census, Government Finances in 1975-76, Series GF76, No. 5 (Washington, D.C.: U.S. Government Printing Office, 1977).

that Maryland residents are saddled with relatively high state and local government burdens. It could be argued that such a deduction is misleading, as half the states with which Maryland is compared are southern states; the rural character of such states and the relatively low levels of public service provided by them would offset the differences in tax burdens. Such a case is moot, however, for the fact remains that Maryland's burdens exceed the national average. Perhaps even more important is the fact that the amounts of revenue raised by state and local government in two of the three northern and industrial states, Pennsylvania and Ohio, are fifteen to twenty-five percent below those in Maryland. Moreover, when measured relative to income, state and local government revenues in Pennsylvania and Ohio compare favorably with those of the southern states. Clearly, these data would seriously undermine any attempt to explain Maryland's relatively high state and local government burdens as a result of an historic tendency of northern and industrial states to be associated with high state and local government revenue requirements.

The purpose of Tables 26, 27, and 28 is to determine how the state of Maryland fares when compared with other states in government expenditures for various functions and objects of expenditure. This comparison could serve as an indicator of the factors underlying growth in government expenditures and the attendant revenue requirements. The analysis examines different aspects of state and local government expenditure at a 5-year interval, 1970/71 to 1975/76. First, per capita expenditures are considered on a functional basis, for the purpose of identifying, in a general way, the relative importance of each type of activity to the population in the various states. Next, the objects of expenditure are examined for the purpose of identifying the relative

Table 26: Per Capita State and Local Government Expenditures for Selected Common and Variable Functions, Maryland and Selected States, 1970-71 and 1975-76.

	Highways[b]		Local Parks and Recreation[a]		Financial Administration[a]		General Control[a]		Police[a]		Fire[a]		Sanitation and Sewage[c]		Total Common Functions[d]	
	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76
Maryland	$ 86.43	$123.00	$13.81	$ 32.60	$13.84	$ 26.95	$13.67	$ 27.23	$ 31.86	$ 51.49	$12.72	$21.38	$24.06	$66.33	$196.39	$348.98
West Virginia	178.32	218.48	3.23	7.34	8.10	17.25	7.62	16.20	10.59	19.58	4.30	8.23	9.18	13.94	221.34	301.02
Virginia	90.48	127.96	8.01	14.08	11.94	18.80	10.36	20.38	18.10	36.86	7.50	15.06	14.84	48.56	161.23	281.70
North Carolina	71.76	103.80	3.84	9.71	9.34	15.37	8.76	17.16	15.84	30.34	5.85	11.07	12.37	28.37	127.76	215.82
South Carolina	63.58	74.78	2.58	6.33	7.60	13.41	7.47	15.18	14.03	26.78	4.06	7.07	20.49	26.19	119.81	169.74
Delaware	114.81	139.99	7.09	10.63	14.10	24.81	21.66	38.82	24.53	42.73	6.59	7.99	16.26	68.00	205.04	332.97
Pennsylvania	93.08	114.31	8.27	13.19	10.02	17.40	12.92	24.18	22.44	38.62	6.79	10.41	19.28	28.55	172.80	246.66
Ohio	76.81	92.50	8.62	12.57	7.58	15.04	11.86	21.46	21.07	42.99	10.27	18.91	21.35	31.13	157.56	234.60
U.S. Average	87.73	111.37	10.22	18.00	11.01	18.45	14.67	26.61	25.34	44.40	11.16	18.16	19.80	38.39	179.93	275.38

	Education[b]		Welfare[a]		Health[b]		Total Variable Functions[d]		Total Functions[d]		Total Local Direct General Expenditures for All Functions as a % of Total State and Local Direct General Expenditures	
	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76	70-71	75-76
Maryland	$324.06	$516.83	$71.55	$123.67	$57.25	$90.62	$452.86	$731.12	$649.25	$1080.10	65.7	64.4
West Virginia	238.53	377.18	55.87	94.41	40.52	68.72	334.92	540.31	556.26	841.33	38.5	42.5
Virginia	261.82	417.42	45.66	91.31	38.19	72.76	345.67	581.49	668.13	863.19	58.3	58.4
North Carolina	236.17	410.23	49.09	75.67	36.59	85.44	321.85	571.34	449.61	787.16	57.0	59.2
South Carolina	228.64	398.40	31.77	73.21	46.13	122.03	306.54	593.64	426.35	763.38	52.1	45.4
Delaware	440.50	566.38	70.25	119.03	39.66	65.86	550.41	751.27	960.49	1084.24	46.6	44.9
Pennsylvania	270.55	407.55	88.21	171.95	37.58	70.04	396.34	649.54	569.14	896.20	54.6	55.0
Ohio	243.32	415.77	54.41	120.70	39.76	83.74	337.49	620.21	495.05	854.81	66.7	65.6
U.S. Average	288.05	452.89	88.36	146.44	54.32	96.37	430.73	695.7	610.66	971.08	62.5	62.8

[a]All figures were taken from sources 1 and 2 by appropriate year, Table 22, pp. 45-48 for 70-71 and pp. 63-66 for 75-76.

[b]When categories were broken down, the total was used.

[c]Sanitation and sewage in this chart is the sum of total sewage plus sanitation other than sewage.

[d]Totals are only the sum of functions listed in the chart.

[e]These figures were computed using the total amounts given in Tables 18 of sources 1 and 2, pp. 34 and 52 respectively.

SOURCES: 1. U.S. Department of Commerce, Bureau of the Census, Governmental Finances in 1970-71. GF71, No. 5, 10/72.
2. _____., Governmental Finances in 1975-76. GF76, No. 3, 9/77.

Table 27: Per Capita State and Local Government Expenditures by Object, Maryland and Selected States, 1970-71 and 1975-76.

	Personal Services[d]		Public Welfare (Transfers)[a]		Retirement Contribution		Interest on Debt[a]		Capital Outlay[a]	
	70-71	75-76	70-71	75-76	71[b]	75-76[c]	70-71	75-76	70-71	75-76
Maryland	$373.18	$612.31	$71.55	$123.67	$10.75	$38.74	$33.53	$57.76	$181.96	$285.81
West Virginia	257.82	371.06	55.87	94.41	16.34	40.52	19.34	41.28	188.81	241.36
Virginia	285.13	470.67	45.66	91.31	8.07	15.73	17.64	32.29	136.17	197.83
North Carolina	248.15	410.35	49.09	75.67	18.76	31.10	11.08	18.31	108.32	183.25
South Carolina	233.65	405.37	31.77	73.21	15.27	28.62	10.67	29.46	109.13	183.45
Delaware	385.48	572.51	70.25	119.03	1.63	56.53	49.47	76.20	243.98	234.68
Pennsylvania	286.26	472.92	88.21	171.95	11.58	44.04	31.48	62.05	161.99	175.17
Ohio	284.60	446.67	54.41	120.70	31.09	42.97	21.86	34.82	122.15	176.48
U.S. Average	342.11	542.56	88.36	146.44	17.50	48.92	24.67	47.84	147.78	191.79

[a] All these figures were taken from sources 1 and 2 by appropriate year, Table 22, pp. 45-48 for 70-71 and pp. 63-66 for 75-76.

[b] These figures were taken from source 3, Table 16, p. 46. Figure is the total of state plus local contributions. Per capita figure was derived using the population statistics in source 3, Table 20, p. 50, which are identical to the population statistics in source 1, Table 26, p. 52.

[c] These figures were taken from sources 4, Table 2, pp. 4-7. Each figure is the total of state plus local contributions divided by population.

[d] These figures were taken from sources 1 and 2 by appropriate year, Table 25, p. 51 for 70-71, p. 69 for 75-76. Per capita figures were derived using population figures in Tables 26 of sources 1 and 2, pp. 52 and 70, respectively.

SOURCES: 1. U.S. Dept. of Commerce, Bureau of the Census, Governmental Finances in 1970-71. GF71, No. 5, 10/72.
2. _____, Governmental Finances in 1975-76, GF76, No. 5, 9/77.
3. _____, State Government Finances in 1971. GF71, No. 3, 6/72.
4. _____, Finances of Employee-Retirement Systems of State and Local Governments in 1975-76. GF76, No. 2, 5/77.

Table 28: Selected Employment and Expenditure Characteristics of State and Local Government, Maryland and Selected States, 1970-71 and 1975-76

	Full-Time Equivalent Employment in State and Local Government (per 10,000 population)[a]		Average Yearly Earnings in State and Local Government[b]		Personal Service Expenditure Per Capita[c]		Total State and Local Personal Services per Employee, Full-Time Equivalent in State and Local Government[d]	
	71	76	71	76	70-71	75-76	70-71	75-76
Maryland	426.9	509.2	$9,192	$12,876	$373.18	$612.31	$8740.33	$12025.82
West Virginia	421.4	477.7	6,888	10,104	257.82	371.06	6117.78	7767.83
Virginia	410.9	498.0	7,656	10,632	285.13	470.67	6938.40	9451.33
North Carolina	397.2	466.2	7,968	10,404	248.15	410.37	6246.88	8801.13
South Carolina	408.8	481.8	6,528	9,492	233.65	405.37	5715.03	8414.36
Delaware	481.5	517.1	8,172	11,544	385.48	572.51	8005.21	11070.50
Pennsylvania	356.0	395.0	8,484	12,240	286.26	472.92	8038.86	11973.14
Ohio	364.1	410.9	8,412	12,048	284.60	446.67	7814.53	10969.49
U.S. Average	426.9	475.0	8,760	12,252	342.11	542.6	8012.92	11411.22

[a]These figures are taken from sources 3, for 1971, Table 5, p. 11; and 4, for 1976, Table 6, p. 12.

[b]These yearly averages were computed by multiplying by 12 the average full-time earnings for full-time employees for October 1971, taken from source 3, Table 6, p. 12; similarly for the 1976 figures, source 4, Table 7, p. 13.

[c]These figures were taken from sources 1 and 2 by appropriate year, Table 22 for 70-71, pp. 45-48; and Table 22 for 75-76, pp. 63-66.

[d]These figures were derived by dividing the total personal service amount found in Tables 25 of sources 1 and 2, pp. 51-69, by the total full-time equivalent employee figures found in Table 5, p. 11 of Source 3 and Table 7, p. 13, of Source 4.

SOURCES: 1. U.S. Dept. of Commerce, Bureau of the Census, Governmental Finances in 1970-71, GF71, No. 5, 10/72
2. _____, Governmental Finances in 1975-76, GF76, No. 5, 9/77.
3. _____, Public Employment in 1971, GE71, No. 1, 4/72.
4. _____, Public Employment in 1976, GE76, No. 1, 6/77.

importance of various categories of expenditure. Finally, state and local government expenditures are related to public sector employment. The purpose here is to gauge, in a rather rough manner, the extent to which levels of public expenditure are related to levels and unit cost of services provided.

In 1970/71, per capita spending in Maryland exceeded the national per capita average spending on all functions (Table 26). Moreover, with some major exceptions, per capita spending in Maryland on all functions exceeded that of other states except on highways, general control, and welfare expenditure. More specifically, in 1970/71, Maryland claimed the highest per capita expenditure figures in six functions, the second highest in three functions, and the third highest in one. In 1975/76, Maryland had fallen to only four first-place figures, but increased its second-place figures to six.

In terms of those activities generally provided by all local governments, the common functions, per capita spending in West Virginia and Delaware exceeded Maryland's figure in 1970/71, but Maryland was highest in 1975/76. In per capita spending for the variable functions (provided by state and/or local government), Delaware exceeded Maryland in both years. As for all functions listed, spending in West Virginia and Delaware exceeded Maryland in 1970/71, while only Delaware did so in 1975/76.

In per capita expenditures by object, shown in Table 27, Maryland exceeded the national average in all categories except public welfare and government retirement contributions. In the breakdown by state, only Pennsylvania exceeded the Maryland figures for both years in public welfare. In 1970/71, Maryland was exceeded by Delaware in personal service expenditures, and by Delaware and West Virginia in capital outlay; but in 1975/76, Maryland had the highest per capita figures in both. In the category, "Interest on debt," Delaware exceeded

the Maryland figure in both years, as did Pennsylvania in 1975/76. On the other hand, for retirement contributions in 1970/71, Maryland ranked sixth, with Virginia and Delaware lower, while in 1975/76, Maryland ranked fifth, with South Carolina falling below Maryland's figure.

Table 28 examines state and local employment through the following categories: full-time equivalent employment of state and local government per 10,000 population, which provides a rough measure of the level of service available to the average state resident; average yearly earnings per full-time equivalent employee in state and local government, a rough measure of public employee wage rates; per capita personal service expenditure, a measure of the burden of public employment borne by the average state resident; and total state and local government personal service expenditures per full-time equivalent employee, a measure of the cost of public employees. In full-time equivalent employment per 10,000 population, Maryland equalled the national average in 1970/7 and exceeded it in 1975/76. In both years, though, Maryland was second to Delaware. This implies that, relative to other states and to the national average, state and local government employment in Maryland relative to its population is relatively high and increasing. Maryland's state and local employees earned average wages greater than the national average and earned the highest average wages in both years for the states compared here. Similarly, total personal service expenditure per full-time equivalent employee in Maryland exceeded the national figures and exceeded the figures for all other states examined here. This indicates that the non-wage cost of government employment in Maryland maintai rather than offsets the relatively high wage cost of state and local government employees. Maryland's personal service expenditures per capita exceeded the national average both years, but were second to Delaware in 1970/71, though

first in 1975/76. The implication here is that, just as Maryland government employment is high relative to its population, they pay a relatively high cost for the services they receive.

Expenditure Growth

Various explanations may be offered for the relatively high levels and rates of increase in Maryland's state and local government expenditures. On the one hand, it may be argued that state and local government expenditure levels are established in response to a set of demand considerations, e.g., the level of income, the number of school-aged students, welfare recipients, and the poor in general. A second explanation relates to the cost of providing public service. In this case, it might be argued that expenditure levels and the rates at which they increase are the results of a combination of inflation and the effects of unionization on public employee wage rates, which jointly have driven up the cost of providing any given level of service. Third, it might be argued that expenditure levels are high because of particular state-local fiscal arrangements, which either have a stimulating effect on expenditure or do not check the increase in expenditure levels.

The best explanation of the expenditure increase probably lies in a combination of these three causes. However, some weighting of their relative importance seems essential if one is to formulate a proper state and local government taxation-expenditure policy. In general, if the demand explanation is correct, then taxes and expenditures will continue to grow with the state's population and income. If the cost explanation is correct, then the outlook is for rising expenditures and increasing tax burdens.

Demand Considerations

Examination of the relationship between general indicators of demand and spending does not suggest a good fit. In the period 1971-1975, personal income increased by 45 percent and per capita income by 42 percent (Table 29). During the same period, population increased by 3.6 percent while state and local government employment increased by 25 and 19 percent respectively. However, state and local government expenditure growth during this period was much greater, the result being that per capita expenditures increased by 72.8 percent.

In the case of education, a similar pattern exists. Since 1973, enrollments have fallen slightly; however, education expenditures have continued to increase. The situation for welfare is similar: case loads, at least during the early seventies, increased but public welfare expenditure increased to a much greater extent.[39] Based on these aggregate measures, it would appear that the search for the explanation of rising expenditure and tax levels must go beyond the simple demand explanations.

Supply Side

Expenditure increases in Maryland may be better explained by cost increments. This hypothesis can be explored by studying the trends in the composition of state expenditures by object, i.e., wages and salaries, retirement expenditures, supply costs. This explanation would hold that the composition of population and the demands it makes are unimportant compared to inflation and unionization, which increase the average level of compensation and non-labor costs.

As shown in Table 28, the average earnings of Maryland state and local

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[39]Maryland Department of Economic & Community Development, Maryland Statistical Abstract 1975, Table 157, p. 194.

Table 29: Population, Personal Income Growth, and Per Capita State and Local Government Expenditures in Maryland

	Population[a]	Percent Increase	Personal Income[a]	Percent Increase	Per Capita State & Local Government Expenditures	Percent Increase
1966-67	3,682	--	$11,573,000	--	$473.11	--
1970-71	4,000	8.6	16,789,000	45.0	779.58	64.5
1975-76	4,144	3.6	26,533,000	58.0	1346.42	72.8
1966-67 - 1975-76	--	12.5	--	129.2	--	185.

SOURCE: U.S. Bureau of the Census, Governmental Finances in 1966-67, 1970-71, 1975-76. GF67, No. 3; GF71, No. 5; GF76, No. 5, Table 26.

[a]In thousands.

government employees rose by about 40 percent between 1971 and 1976. At the same time, the cost of a government employee, wages plus fringe benefits and other employee related costs, increased by about 37 percent. Although perhaps a bit higher, these increases are not greatly different from the increase in the cost of living; they are indicative of a cost push on the levels of state and local government expenditure. These very general trends would support an argument that government spending and taxation increases in Maryland have been as much influenced by increasing costs as by demand considerations.

A complete analysis of the full impact of all supply and demand factors as they affect government expenditures and taxes is beyond the more modest objectives of this review. However, recent study has related government expenditure levels to characteristics of state/local fiscal systems in two ways which could be quite important in Maryland. The first has to do with the nature of state and local fiscal relations. More specifically, state aids to local governments have been found to stimulate local government expenditures. In states like Maryland, where the state government raises a relatively large share of the total state and local government revenues while local governments account for a large share of combined state and local government expenditures, the implication is that expenditure levels and the attendant tax levels are higher than they otherwise would be.[40] The second is that it has recently been established that states which impose limits on local property taxes are associated with levels of spending per capita which are six to eight percent below what they would be with no property tax limits.[41] Historically,

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[40]Advisory Commission on Intergovernmental Relations, The State and Inter-Governmental Aids, No. A59 (ACIR, February 1977), p. 66.

[41]Advisory Commission on Intergovernmental Relations, State Limitations on Local Taxes and Expenditures, No. A64 (ACIR, February 1977), p. 3.

the state of Maryland has not been one of those which have followed a policy of placing limitations on local government powers of property taxation. Whether the absence of such limitations has played a part among those factors which have produced the relative high levels and increases in state and local government expenditures and taxation in Maryland is not known at this point. However, this type of relation has been substantiated generally, and there is no obvious reason why Maryland should not conform to the general pattern.

As these positive relations between expenditure levels and increases and the nature of state-local interrelations and tax limits have been found to be operative over and above any demand effects, the conclusion that demand factors have played a secondary role in the growth of Maryland's state and local government spending and taxation seems warranted.

The Outlook

The fiscal outlook for Maryland is not as comfortable as it could be. The public sector has continued to expand, while it is not clear that the state's economic situation can continue to support such expansion. It would seem that a period of adjustment is in the offing.

A careful forecast of the revenue-expenditure relation is a serious and time-consuming exercise, and one that is beyond the scope of the analysis here. As an alternative, the outlook as forecast in existing projections can be considered. For the state of Maryland, the Department of Fiscal Services produces revenue and expenditure estimates on an annual basis running through 1983.[42]

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[42]Maryland Department of Fiscal Services, Division of the Budget, "Effect of Long Term Debt on the Financial Conditions of the State," Annapolis, Md., 29 November 1977 (mimeo).

In general, it appears to be a carefully done study, and claims to be no more than a projection based on one set of assumptions. It cautions properly about the projection variations which may result if the assumptions are not met.

Associated with the projections of the Fiscal Division are a general surplus of substantial size in fiscal 1978, and revenue growth of about 10.5 percent through 1980 and of about 8 percent between 1980 and 1983. Considering the magnitude of the surplus projected for 1979, there would seem to be little need for serious immediate concern. However, the size of the surplus in any given year does not tell the whole story. The surplus in any given year represents an accumulation over past years. In fact, the state estimated a substantial surplus from 1977 operation, $64.3 million available for 1978 operations. In addition, it is estimated that fiscal 1978 and 1979 operations will yield increments to the surplus, although the 1979 increment as projected will be some 40 percent below that of 1978.[43]

The budget forecasts underlying the growing surplus and the revenue projections through 1980 appear to have been based, until recently, on a growth in income of nine percent. This assumption appears to be in tune with the overall Maryland experience since the mid-sixties. Indeed, it seems to be a conservative interpretation of the state's growth in personal income over the past ten or twelve years. However, in light of the state's more recent experience, an assumed nine percent growth in income could be considered a liberal rather than a conservative assumption. At least since 1973, the growth in Maryland's personal income has been closer to eight rather than nine percent per year, a fact that

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[43]Maryland State Department of Fiscal Services, Fiscal Briefing for Senate and House of Delegates, Annapolis, Md., 13 December 1977 (mimeo).

has been reflected in more recent revenue estimates.[44] Still, it could be argued that the recent slow growth in income simply reflects the last vestiges of the national recession, and that employment could be expected to grow at a rate to justify fairly optimistic assumptions about income and tax revenue growth.

In fact, employment in Maryland has picked up somewhat since the depth of the recession. However, the aggregate figures mask the significant changes which are occurring in the state's economy. In particular, personal income growth in the state's two major employment sectors, manufacturing and Federal government, has been particularly slow during the past two years.[45] With the comparative slow growth in the Northeast and the competitive disadvantage of Maryland vis-a-vis the South, it is unlikely that major employment growth in the manufacturing sector will occur. In addition, it could be anticipated that growth of federal employment in Maryland will continue to be slow as the administration of federal programs continues to be shifted away from Washington, to the states.

The second element governing the levels of forecasted revenues is the response of revenues to income growth. The assumption has been that, over time, revenues would increase by about 1.18 percent for each one percent increase in income. Although this relatively low figure would appear to be conservative, it may actually be too high.[46] In particular, it is based on an

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[44]Maryland State Department of Fiscal Services, Division of Budget Review,"Effect of Long Term Debt on the Financial Condition of the State," op. cit.

[45]Ibid., p. 43.

[46]U.S. Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism 1976-1977 Edition, Vol. II: Revenue and Debt, M110 (Washington, D.C.:ACIR, March 1977); and Neil M. Singer, "Estimating State Income Tax Revenues: A New Approach," Review of Economics and Statistics, November 1970.

assumed growth of income tax revenue which would be 18 percent greater than the growth in income. Whether this figure is realistic cannot be known until after the fact. However, given the essentially proportional structure of the tax system, it would be expected that income tax revenues would grow at rates closely resembling the rates of growth of personal income.

Equally important is the contribution of the sales tax to the projected surplus. In fact, the estimated increment added to the surplus between 1977 and 1978, and 1978 and 1979, is less than the projected increases in sales tax revenues alone. Clearly, without the recent one percent increase in the sales tax rates, the state's fiscal picture at this date would be substantially less secure.[47] It is interesting to note that the Budget Division estimates that a one percent reduction in the recently increased sales tax would more than offset the accumulated surplus increments of 1978 and 1979.

Quite apart from the revenue projections underlying the state's fiscal planning are its estimated budget requirements. At least for the period 1977 through 1979, the state appears to have estimated that its budget requirements are to increase at a rate about twenty percent faster than its revenues. It is because projected budget requirements grow faster than forecasted revenues that the estimate of the annual increments to the surplus are declining. In fact, if the revenues and expenditures grow as they are projected, it appears that the state's ability to add to its surplus would be decimated by 1981.

The state's budget requirements seem to be conservatively estimated, for their growth is projected at a rate which appears to be about equal to the assumed rate of growth in income. However, as indicated above, supply factors and increases in employee compensation appear to govern state expenditure

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[47] It is interesting to note that the necessity for a sales tax increase was recognized and recommended as long ago as 1971 by the then-existing State Council of Economic Advisers. Study Commission on the State Tax Structure, final report, 4 January 1971.

growth as much as income. Moreover, those demand factors, e.g., number of welfare recipients, which may have directly influenced expenditure growth appear to have increased more rapidly than income.

In part, these considerations are reflected in the state's budget forecasts for employee fringe benefits and welfare type expenditures, which are estimated to increase at rates which are generally higher than the overall budget increases. School aid and aid to subdivisions, however, are slated for increases at rates below those of the overall budget, and about half the education aid increase is due to cost factors, increases in teachers' retirement and social security aid. In addition, a slight decrease in current expense aid to education is anticipated for 1979.

The implication is, of course, that to a large extent cost factors govern the increase in state expenditures, and that demand factors have a minor influence on the increase in budget requirements. Equally important is the implication that the state's aid to subdivisions is estimated to account for relatively small increments.

A forecast of the budgetary position of all local governments in the states does not exist. If it did, it would likely show that many of the larger counties, and certainly Baltimore City, face many of the same pressures and prospects as the state. Baltimore City tops the list with an economic base that continues to be problematic. The slowdown in the growth of federal employment will no doubt have an effect on Prince Georges and Montgomery counties. While they will probably have to deal with the problem of slow growth in tax revenues, all local governments will apparently have to adjust to relatively small increments in state aid while faced with a set of circumstances which continue to place upward pressure on costs.

In essence, the state's budget projections imply that expenditure increases faced by local governments, whether due to demand or cost factors, will have to be financed out of local revenues. Given the anticipated slow growth in income and the essentially proportional nature of the local income tax, the implication of the state's projections is that local budget increases are likely to be associated with increasing property tax bills.

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