

# **Profile of the Southeast Michigan Region's Economy and Labor Market 1997**

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## **Abstract**

This report takes an in-depth look at Southeast Michigan's economic successes in the 1990s. It analyzes a variety of economic and labor market indicators and assesses the region's stability and its prospects for future growth. This report also addresses the question — how diversified is Southeast Michigan's economy or is it still dominated by auto manufacturing and production?

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## Executive Summary

These are good times in Southeast Michigan. The economy is great. Jobs are prevalent. This report takes an in-depth look at the region's economic success.

The unemployment rate is arguably the most visible gauge of regional labor market conditions and, by this measure, Southeast Michigan has done exceptionally well in the 1990s. In 1990, the unemployment rate for the Detroit and Ann Arbor Metropolitan Statistical Areas combined averaged 7.4 percent. By 1997, regional unemployment rate was 50 percent lower — at 3.7 percent. The 1997 figure is the lowest in at least 28 years and more impressive because it significantly betters the national average of 4.9 percent.

The economy is much more stable now than in the 1980s, with the current low unemployment rate a result of Southeast Michigan's strong record of job creation in the 1990s. From 1990 to 1997, total employment in the region increased by 231,000. This 11 percent gain is ahead of the national growth pace of nine percent.

Favorable auto industry developments have supported the region's manufacturing sector. Construction has been one of Southeast Michigan's strongest performing industries, generating 20,000 new jobs in the 1990s. In 1997, new residential construction in Southeast Michigan totaled 22,400 units, a 27 percent increase from 1990. Construction of new one-family units is up while major development projects totaled nearly 95 million square feet of nonresidential building space in the 1990s.

Southeast Michigan's private service sector shows large employment gains in the 1990s. From 1990 to 1997, 185,000 new jobs were added — a 15 percent increase. Employment in business/management/engineering services led the growth, registering a 46 percent gain. Another important growth factor is demand for contracting out and "unbundling" by business and other organizations; the demands for employee leasing and temporary help have also increased. These job gains, along with greater hours worked and increased productivity, have raised incomes in Southeast Michigan substantially.

All factors suggest that Southeast Michigan's labor market is moving in the direction of greater stability and continued low unemployment. The strong economy has produced one problem — labor shortages. Currently, employers struggle to find an answer to how much job growth the labor market can sustain. About 40 percent of growth since 1990 is attributable to falling unemployment. Since unemployment is unlikely to fall much further, future growth is expected to be more restrained.

Southeast Michigan's economy is in a significantly better position today than it was 10 years ago to withstand the severe negative impacts of a recession or long economic downturn. The region ranks 16th in employment volatility of the nation's largest metropolitan areas with an economy more stable than the Phoenix, Boston, Atlanta, Los

Angeles, New York, Miami, Baltimore, Dallas and Seattle metropolitan areas. Although the region's employment growth rate ranks 15th (behind Phoenix, Atlanta, Portland and Denver, among others), job growth in Southeast Michigan has occurred in industries less impacted by a recessionary period, thus providing stability in the local labor market in the 1990s.

## Preface

This report takes an in-depth look at Southeast Michigan's economic successes in the 1990s. It analyzes a variety of economic and labor market indicators and assesses the region's economic stability and its prospects for future growth. Southeast Michigan results are compared to United States, the State of Michigan and other metropolitan areas — where appropriate. This report also addresses the questions: Is Southeast Michigan's economy more stable today than it was in the 1980s? How diversified is the region's economy or is it still dominated by auto manufacturing and production?

Southeast Michigan is defined as consisting of two Primary Metropolitan Statistical Areas (PMSAs) that include nine counties. Counties in the Detroit PMSA are Lapeer, Macomb, Monroe, Oakland, St. Clair and Wayne, while the Ann Arbor PMSA includes Lenawee, Livingston and Washtenaw counties. PMSAs are used to define Southeast Michigan because needed data items are available by PMSA but not by county. The two counties not included in SEMCOG's seven-county region — Lapeer and Lenawee — contain less than three percent of this report's nine-county definition of Southeast Michigan. Therefore, any statements made about the nine-county grouping apply very closely to the SEMCOG region.

Data for this report comes from various sources which are identified in the Bibliography section. Special tabulations of current and historical datasets from the Bureau of Economic Analysis, Current Population Survey and Bureau of Labor Statistics were performed by Dr. David Macpherson of Florida State University and Mr. Abel Feinstein, an economic consultant and former chief labor market economist of the Michigan Employment Services Agency. Mr. Feinstein is also co-author of this report and has served as a consultant to SEMCOG staff on this project.

We believe the information and analyses provided in this report will be a valuable resource to public officials, developers, market researchers, economic development and planning professionals and others in understanding Southeast Michigan's economy and labor market.

## Regional Overview

Southeast Michigan has been one of the great regional economic success stories of the 1990s. Employment and income have expanded substantially and unemployment has been cut dramatically. Many measures of economic activity show the region matching or exceeding the very vigorous growth trajectory of the total U.S. economy in the 1990s. This represents a significant reversal of fortune for Southeast Michigan which, in the 1970s and 1980s, often trailed the national economy, sometimes by a wide margin.

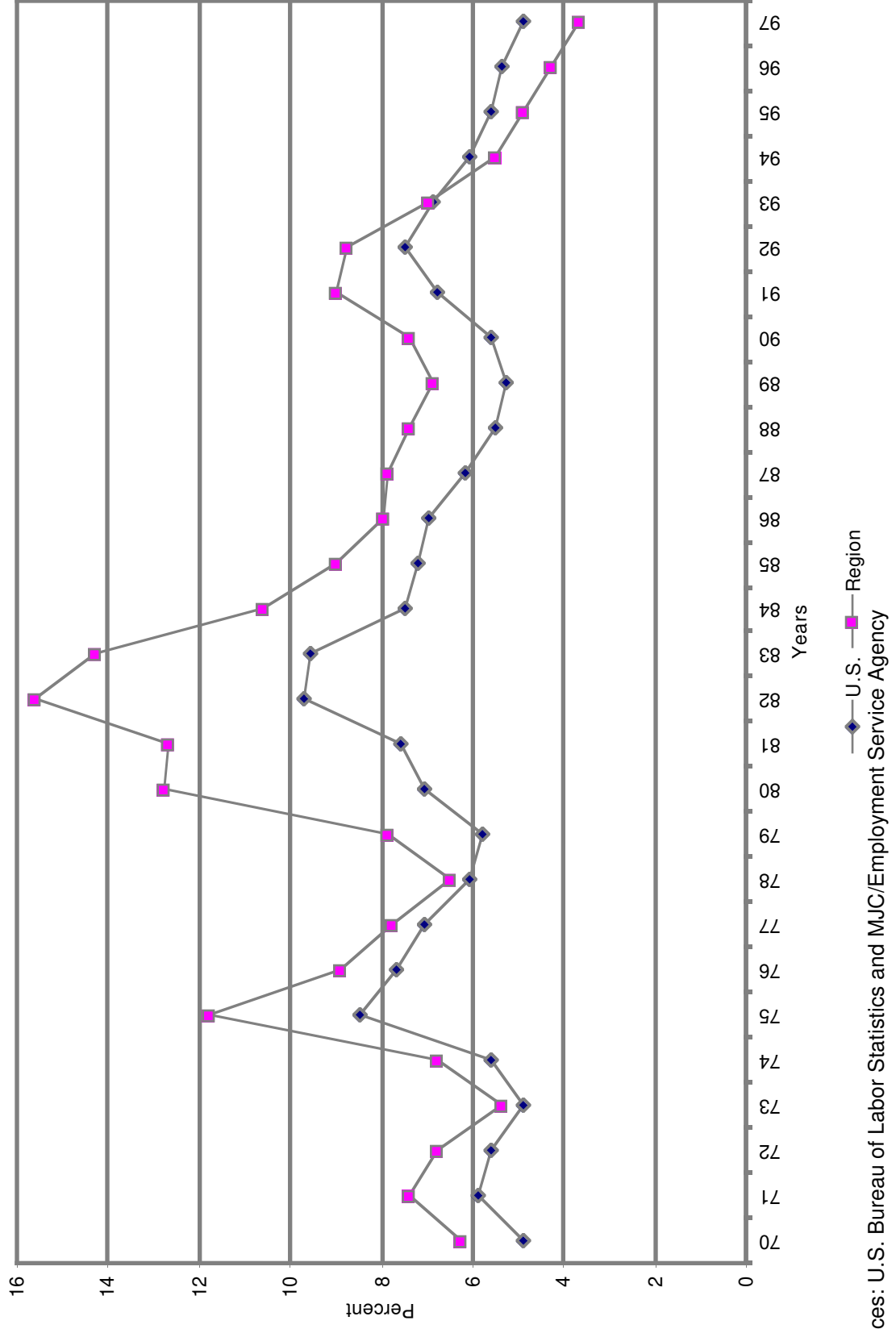
For the purposes of this report, Southeast Michigan is defined as consisting of two Primary Metropolitan Statistical Areas (PMSAs) that include nine counties. Counties in the Detroit PMSA are Lapeer, Macomb, Monroe, Oakland, St. Clair and Wayne, while the Ann Arbor PMSA includes Lenawee, Livingston and Washtenaw counties. Combined, the two PMSAs cover 5,266 square miles and contain in excess of 250 municipalities, villages and townships. PMSAs are used to define Southeast Michigan because needed data items are available by PMSA but not by county. The two counties not included in SEMCOG's seven-county region — Lapeer and Lenawee — contain less than three percent of this report's nine-county definition of Southeast Michigan. Therefore, any statements made about the nine-county grouping apply very closely to the SEMCOG region.

The unemployment rate is arguably the most visible gauge of regional labor market conditions. By this measure, Southeast Michigan has done superlatively well in the 1990s (**Figure 1**). The unemployment rate for the Detroit and Ann Arbor MSAs combined averaged 7.4 percent in 1990. By 1997, the regional unemployment rate had dropped to 3.7 percent, a 50 percent reduction of the 1990 figure. This improvement significantly bettered the national performance. Southeast Michigan's unemployment rate was well *above* the U.S. rate of 5.6 percent in 1990 and well *below* the national rate of 4.9 percent in 1997.

This decline in unemployment is a result of Southeast Michigan's strong record of job creation in the 1990s. Between 1990 and 1997, total labor force employment in the region increased by 231,000. In contrast, the increase in total employment between 1979 and 1989 was less than 100,000. Southeast Michigan's employment numbers for the 1990s also appear favorable relative to the national trend. The region's employment change from 1990 to 1997 represents an 11 percent gain, somewhat ahead of the U.S. growth pace of nine percent.

These job gains, plus greater hours worked and increased productivity, have substantially raised incomes in Southeast Michigan. Total personal income in the region is estimated at \$144.2 billion in 1997, a 44 percent improvement from 1990. Per capita income is estimated to have risen by 37 percent over the same period — to \$28,823 in 1997. The region's total income performance *equals* the U.S. figure and the per capita increase *exceeds* the national figure (**Table 1**). The gain in per capita income is significantly ahead of inflation. In "real" terms (adjusted for inflation) income per person in Southeast Michigan is estimated to have risen by \$2,072, or 13 percent, in the 1990s.

Figure 1  
 Southeast Michigan and U.S. Unemployment Rates, 1970 - 1997



Sources: U.S. Bureau of Labor Statistics and MJC/Employment Service Agency

Table 1

**Changes in personal Income, Per Capita Income and Volume of Exports, Southeast Michigan, Michigan and U.S., 1990 - 1997**

	Personal Income (in Million \$)										Change, 1990 - 1997	
	1990	1991	1992	1993	1994	1995	1996	1997	Numeric	Percent		
United States	4,786,293	4,963,545	5,260,922	5,507,657	5,774,875	6,137,878	6,480,031	6,851,080	2,064,787	43.1		
Michigan	174,389	179,166	188,714	200,671	215,250	229,474	239,269	249,817	75,428	43.3		
Region	100,328	101,649	106,924	114,171	122,826	131,354	136,923	144,165	43,837	43.7		
<b>Per Capita Income (\$)</b>												
	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997			
United States	19,188	19,687	20,631	21,368	22,186	23,359	24,436	25,598	6,410	33.4		
Michigan	18,730	19,080	19,936	21,069	22,469	23,767	24,588	25,560	6,830	36.5		
Region	21,072	21,165	22,074	23,424	25,058	26,562	27,451	28,823	7,751	36.8		
<b>Volume of Exports (in Million \$)</b>												
	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997			
United States	393,592	419,985	447,471	464,858	512,416	583,031	622,827	687,598	294,006	74.7		
Michigan	18,473	18,850	22,014	25,322	36,812	37,102	38,128	37,920	19,447	105.3		
Region	NA	NA	NA	18,999	29,546	28,473	28,842	NA	NA	NA		

Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Census and SEMCOG DataCenter

## Evaluating Southeast Michigan's Economic Performance

A healthy national economy and favorable trends in the region's key auto sector have helped set the stage for Southeast Michigan's excellent economic performance. The U.S. economy has averaged a moderate 2.8 percent annual growth since the 1990-91 recession. Growth has been quite steady, without much volatility or major fluctuations. Inflation has been tame and interest rates low. Labor market developments have been very positive, with strong hiring and steady declines in unemployment. Responding to these favorable trends, consumer sentiment has, on the whole, been quite bullish.

The many initiatives undertaken by the U.S. motor vehicle industry to improve competitiveness and market position have paid off greatly during the extended economic expansion of the 1990s. Since the early 1980s, the industry has improved efficiency, raised quality, intensified new model development and targeted those market segments offering the greatest potential for growth and profitability.

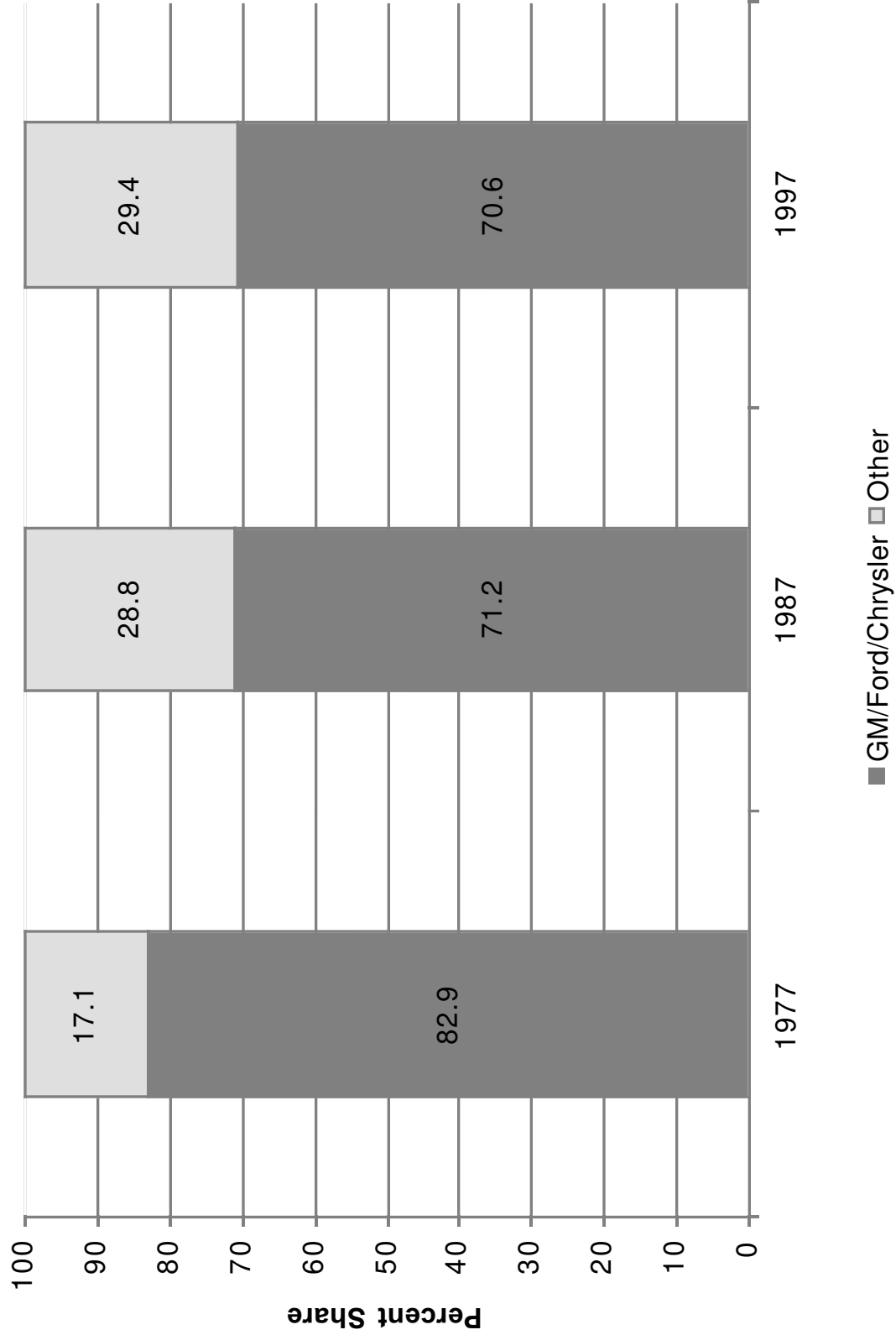
Since 1979, motor vehicle industry output per hour has increased by 34 percent. In the 1980s, perceptions that imported vehicles were of higher quality was a serious handicap for U.S. vehicle companies. These issues have been largely resolved and most consumers are now satisfied that U.S. and foreign cars are of equivalent quality. Over a 10-year span from 1987-1996, General Motors, Ford and Chrysler — the Big 3 — spent more than \$117 billion worldwide on research and development work. Much of this spending was devoted to the creation of new vehicles or the re-engineering of existing models in order to maintain and expand market share in a highly competitive environment.

From a marketing perspective, the U.S. vehicle companies have particularly targeted the light truck/van/sport utility market. This has been the fastest growing segment of the overall vehicle market and one that U.S. companies have dominated. In 1997, U.S. companies captured 82 percent of this segment compared to 61 percent of auto sales. In fact, the focus of Big 3 vehicle production has shifted to such an extent that in 1997 nearly 60 percent of their total output was light trucks/vans/sport utilities.

This strategy of manufacturing efficiency, product improvement and focused marketing has fundamentally stabilized the Big 3 share of U.S. vehicle sales. The sales figures clearly show the U.S. vehicle producers' ability to retain their market position in a highly competitive climate. Between 1977 and 1987 the foreign nameplate share of U.S. sales jumped from 17 to 29 percent. Over the last decade, however, foreign brand share has, with minor year-to-year fluctuations, remained basically flat (**Figure 2**).

Therefore, the shape of motor vehicle demand in the 1990s has been beneficial to Southeast Michigan in two ways. First, demand has been quite buoyant, with an average of about 15 million vehicles sold per year since 1994. Second, the market stability of the Big 3 auto manufacturers, all headquartered in Southeast Michigan, means that a proportionally large share of revenues generated by vehicle sales have flowed into the local economy. This, in turn, has promoted additional economic activity and jobs in the region.

Figure 2  
**Big Three Vehicle Market Share 1977, 1987, 1997**



Source: American Automobile Manufacturers Association

A number of other economic developments have also had a positive impact on the Southeast Michigan economy in the 1990s. The Midwest economy, including Michigan, has been one of the stronger regional economies in the 1990s. Because economic and business links are often still regional in nature, this has, in turn, boosted the Southeast Michigan economy. International export growth has also been a positive factor. The volume of exports from Michigan has more than doubled, from \$18.5 billion in 1990 to \$37.9 billion in 1997. A significantly large share of the products exported comes from businesses located in Southeast Michigan.

On the other hand, Southeast Michigan has, by and large, been insulated from the negative economic events of the 1990s. Military base closings, defense industry cutbacks and the collapse of over built commercial real estate markets hurt the economies of many metropolitan statistical areas, particularly during the first half of the decade. Southeast Michigan was not much affected by these developments. Defense spending does not play a large role in the region's economy and commercial real estate was not subject to the degree of speculative excess evident in other cities. In summary, many important features of the U.S. economy in the 1990s have been major pluses for Southeast Michigan, while damage from negative trends has been very limited.

### **Detailing Southeast Michigan's Employment Growth**

In total, Southeast Michigan has added 207,000 jobs in the 1990s with wage and salary employment increasing from \$2.140 million in 1990 to \$2.347 million in 1997 (**Table 2**). Growth was slow in the early part of the decade, because of the 1990-1991 recession, but since 1993 the region has been adding jobs at a rapid pace.

#### **Manufacturing and construction employment breaks historic trend**

The manufacturing sector employment pattern is particularly noteworthy because it shows a marked break from the historical trend. Between 1979 and 1989, Southeast Michigan's manufacturing base experienced significant reverses, and the region lost 144,000 manufacturing jobs. By contrast, in the 1990s manufacturing has been a stabilizing force in the Southeast Michigan labor market. Overall, manufacturing employment has shown a level-to-slightly-upward trend in the region during the 1990s. The number of manufacturing jobs stood at 493,000 in 1990 and 496,000 in 1997. In addition to a favorable job outlook, the trend in hours worked has been positive. The upshift in work hours is important from an income standpoint because manufacturing jobs are, on average, very high paying jobs. Area manufacturing production worker hours rose from 42.9 (per week) in 1990 to 45.6 in 1997.

The solidity of manufacturing in Southeast Michigan in the 1990s contrasts with a weak picture nationally. While favorable auto industry developments have supported the region's manufacturing sector, U.S. manufacturing employment declined two percent from 1990 to 1997. The U.S. job trend has been negatively affected by defense budget reductions and by widespread restructuring and downsizing of large industrial companies in the 1990s. As

Table 2

**Labor Market and Industry Employment Trends: Southeast Michigan, Michigan, United States, 1990 - 1997**

(Numbers in thousands)

	Southeast Michigan		Michigan		United States	
	1990	1997	Numeric	Percent	Michigan Percent	United States Percent
	Change, 1990 - 1997		Change, 1990 - 1997		Change, 1990 - 1997	
<b>Labor Force</b>						
Employment	2,375.0	2,524.0	149.0	6.3	8.4	8.3
Unemployment	2,199.0	2,430.0	231.0	10.5	12.4	9.1
Unemployment Rate (%)	176.0	94.0	-82.0	-46.6	-40.1	-5.3
	7.4	3.7	-3.7	-50.0	-44.7	-12.5
<b>Wage and Salary Employment</b>						
Mining	2,139.6	2,347.0	207.4	9.7	12.0	12.1
Construction	1.1	1.1	0.0	0.0	-19.1	-16.5
Manufacturing	68.9	89.0	20.1	29.2	26.7	11.1
Private Service	492.7	495.6	2.9	0.6	2.5	-2.2
Transportation, Communication & Utilities	1,280.0	1,465.2	185.2	14.5	17.9	18.1
Wholesale Trade	94.4	100.7	6.3	6.7	9.3	10.7
Retail Trade	120.4	135.5	15.1	12.5	12.4	7.7
Eat & Drink	388.3	404.4	16.1	4.1	9.3	12.3
Other Retail	134.0	141.6	7.6	5.7	11.8	17.3
Finance, Insurance & Real Estate	254.3	262.8	8.5	3.3	8.0	9.8
Depository Institutions	117.8	122.2	4.4	3.7	8.0	5.7
Other Finance, Insurance & Real Estate Services	42.6	38.3	-4.3	-10.1	-4.0	-9.9
Business, Engineering & Management	75.2	83.9	8.7	11.6	15.4	13.6
Health Services	558.0	702.4	144.4	25.9	29.4	29.0
Other Services	181.3	263.8	82.5	45.5	53.5	44.3
Government	174.3	207.6	33.3	19.1	20.1	24.4
Federal	202.4	231.0	28.6	14.1	20.4	22.6
State & Local	296.9	296.4	-0.5	-0.2	2.4	6.9
Education	35.4	33.0	-2.4	-6.8	-8.8	-12.5
Other State & Local	260.5	263.4	2.9	1.1	3.6	10.8
	154.7	160.9	6.2	4.0	7.0	13.6
	105.8	102.5	-3.3	-3.1	-0.7	8.0

Sources: U.S. Bureau of Labor Statistics and MJC/Employment Service Agency

a result, many industries and metropolitan areas have experienced employment problems similar to those faced by the auto industry and Southeast Michigan in the 1980s.

Construction has been one of Southeast Michigan's strongest performing industries in the 1990s. Construction businesses have generated 20,000 new jobs in the 1990s. This represents a massive 29 percent gain in construction employment and is nearly triple the U.S. gain. The boom in construction activity has been fostered by the region's strong economy, low mortgage interest rates, reductions in property tax rates and higher levels of transportation and infrastructure spending. In this environment, residential, industrial, commercial and heavy construction have all prospered. New residential construction in Southeast Michigan totaled 22,400 units in 1997, a 27 percent increase from 1990. Construction of new single-family homes is up 65 percent. Major development projects in the 1990s have totaled nearly 91 million square feet of nonresidential building space. Infrastructure spending for highway and road improvements in Michigan have totaled \$3.3 billion since 1991, with roughly half allocated to Southeast Michigan.

### **Service-producing employment shows sizeable gains**

With today's industrial classification systems, there is a broader grouping of industries that are called service-producing industries. These industries include transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Southeast Michigan's private service sector continued to show large employment gains in the 1990s. Employment in this sector rose from 1.28 million in 1990 to 1.47 million in 1997. This represents a gain of 185,000 jobs and an increase of 15 percent. In fact, employment in most service sector industries rose in the 1990s. Business/ management/ engineering services, health and miscellaneous services were the leaders in job creation. Wholesale and retail trade also recorded sizeable gains. Employment levels in transportation/ communications/utilities and finance/insurance/real estate also moved up, although some component industries had job decreases.

Employment in business/management/engineering services maintained a strong growth pattern in the 1990s. The number of jobs in this sector increased by 83,000 during the 1990-1997 period, a 46 percent gain. There are several major reasons for this powerful upward trend. First, this sector covers many high-demand economic functions, including computer systems development, motor vehicle engineering, other product development and business management consulting. Secondly, the growth of smaller companies has increased the demand for service sector expertise as these businesses cannot maintain specialized functions internally as large companies do.

One of the most important growth factors of the service sector has been the demand for contracting-out and "unbundling" by business and other organizations. Firms have always contracted for specialized services not available internally, but this approach has mushroomed since the 1970s, and businesses now routinely purchase a broad range of services from outside vendors. More and more the prevailing management philosophy is to focus on the company's core operation — however defined — and to acquire necessary support activities from outside specialty firms. In other cases, it may be more economical

or convenient to purchase the service as opposed to maintaining or expanding the service capability in-house.

Another major factor has been the massive expansion of the personnel supply industry and demand for temporary help. In the highly cost-sensitive business climate of the 1990s, companies have looked to flexible staffing arrangements to manage workforce costs. As a result, businesses have increasingly contracted with temporary help firms to provide staff for seasonal peaks, unexpected surges in demand and work that is not expected to be permanent. Another reason for the personnel supply industry demand in the 1990s has been employee leasing. Leased workers are not temporary workers. In the leasing arrangement, a business transfers its workforce and related payroll functions to a specialist employment firm that, in turn, leases the workforce back to the original company.

In summary, the employment trend in Southeast Michigan business/management/engineering services has been very buoyant. Computer services, miscellaneous business services, engineering, management consulting, accounting services, plus the personnel supply industry all recorded large job increases in the 1990s.

The number of workers in health services increased by 33,000 from 1990 to 1997. While this growth is substantial, it nevertheless is a slowdown from the health services growth trend of the 1970s and 1980s. This growth slowdown reflects the strong focus of businesses, governments and health care providers to contain health care costs and has significantly altered the structure of the health care industry. Enrollment has soared in HMO and other managed care plans that deliver services according to a fixed fee per capita formula. The managed care plans typically emphasize preventive, outpatient and home care rather than hospitalization. Correspondingly, these components of the health care sector have experienced the largest job increases while the employment share of hospitals has declined.

The industries grouped as miscellaneous/other services have, in combination, increased employment levels by 29,000 during the 1990-1997 period. Private social services, which includes assisted living centers, was the leading job gainer. Reasons for growth include the expanding elderly population and the growing involvement of private/nonprofit sector providers in government funded social service programs. The employment numbers for amusement and recreation, motion pictures and landscaping services have been very strong. Employment is up slightly in private education. This is also true of car repair and rental services. The employment trend in the other industries grouped into miscellaneous services has been static to declining.

Wholesale trade employment increased by 15,000 between 1990 and 1997. In the early part of the 1990s, wholesale employment was affected by widespread reductions in corporate sales and distribution staffs. Subsequently, wholesale employment has experienced a strong recovery. The tighter links between the Big 3 and their suppliers has prompted the supplier firms to relocate and enlarge their staffs in the region. Strong capital investment has produced growth in computer and industrial equipment distribution. Job

increases in other wholesale segments is motivated by area economic growth and the need for distribution facilities to handle “just-in-time” stocking for retailers.

Retailing has always been a very competitive sector of the economy. These competitive pressures appear to have intensified in the 1990s, which has been a period of extensive churning, displacement and consolidation. If the 1980s were an era of “boutique” retailing, a dominant trend in the 1990s has been the growing importance of the specialty “superstores.” Large national chains have succeeded by bringing the economies of scale, traditionally associated with department and discount stores, to specialty areas such as home improvements, appliances, electronics and office supplies.

Technological innovation — particularly computerized checkout, record keeping and inventory management — is another important feature of 1990s retailing. Large merchandisers have also boosted productivity by transferring stock maintenance functions to distributors and manufacturers, by maximizing self-service, and through employee multi-tasking. For all these reasons, retail employment has increased four percent in the 1990s. Because of the sector’s size, however, this still translates into a sizable gain of 16,000 jobs. Approximately half of this increase is attributable to continued growth in the eating and drinking places segment of retail trade.

Employment trends in the finance/insurance/real estate group were mixed. The banking industry throughout the nation is experiencing a period of extensive merger activity, consolidation and branch office closings. This is also true of Southeast Michigan, where depository institution employment declined by 4,000 between 1990 and 1997. The other industries in this group, however, added 9,000 jobs with growth concentrated in the real estate and investment components. In the aggregate, employment in the finance/insurance/real estate sector increased by 4,000 in the 1990s.

Industries comprising the transportation/communications/utilities sector also showed divergent employment patterns in the 1990s. The total number of jobs in the sector rose by 6,000. Southeast Michigan’s employment base in trucking, airlines and transportation services grew larger. This reinforces the region’s position as a major national and international transportation hub. The number of telephone, electric and gas utility employees declined.

### **Government employment declines**

Government employment, in total, declined by about 1,000 in Southeast Michigan between 1990 and 1997. Federal employment, affected by defense cutbacks, decreased by 2,000. State and local government trends were mixed. Public schools and higher education staffing increased by 6,000. The number of jobs in non-education functions was reduced by 3,000. This decline in government employment, although small, appears significant because it deviates from the national pattern. Between 1990 and 1997, nationwide government employment rose by 1.3 million, an increase of seven percent.

Table 3  
**Selected Unemployment Indicators, 1990 and 1997**  
 (Unemployment rates)

	1990	1997	Change, 1990 - 1997	
			Numeric	Percent
<b>Total Southeast Michigan</b>	7.4	3.7	-3.7	-50.0
Age 16 to 24 years	17.5	9.2	-8.3	-47.4
Age 25 to 59 years	6.3	2.8	-3.5	-55.6
Age 60 years and over	7.0	2.4	-4.6	-65.7
White	6.7	3.2	-3.5	-52.2
Black	17.6	7.7	-9.9	-56.3
Men	9.3	4.2	-5.1	-54.8
Women	7.4	3.5	-3.9	-52.7
<b>Total Michigan</b>				
Age 16 to 24 years	14.5	8.5	-6.0	-41.4
Age 25 to 59 years	6.0	3.1	-2.9	-48.3
Age 60 years and over	4.8	3.0	-1.8	-37.5
White	6.3	3.6	-2.7	-42.9
Black	16.1	8.2	-7.9	-49.1
Men	8.1	4.2	-3.9	-48.1
Women	6.8	4.0	-2.8	-41.2
<b>Total United States</b>	5.6	4.9	-0.7	-12.5
Age 16 to 24 years	11.2	11.3	0.1	0.9
Age 25 to 59 years	4.5	3.8	-0.7	-15.6
Age 60 years and over	3.1	3.1	0.0	0.0
White	4.8	4.2	-0.6	-12.5
Black	11.3	10.0	-1.3	-11.5
Men	5.6	4.9	-0.7	-12.5
Women	5.4	5.0	-0.4	-7.4

Sources: David Macpherson and U.S. Bureau of Labor Statistics

## Southeast Michigan Unemployment at 28-year Low

Southeast Michigan's unemployment rate averaged 3.7 percent in 1997, the lowest in at least 28 years, and 50 percent lower than the 1990 level of 7.4 percent. This improvement in the region's unemployment situation was very broad based, encompassing all major labor force demographic groups.

All segments of the Southeast Michigan workforce experienced dramatic declines in joblessness during the 1990s (**Table 3**). The youth (16-24) unemployment rate dropped from 17.5 percent in 1990 to 9.2 percent in 1997. The unemployment rate of workers in the 25-59 age range averaged only 2.8 percent in 1997 compared to 6.3 percent in 1990. Unemployment among workers 60 and over fell from a 7.0 percent rate in 1990 to 2.4 percent in 1997.

The same picture emerges when the labor force is analyzed by race and gender. The unemployment rate among white workers was reduced from 6.7 to 3.2 percent between 1990 and 1997. Although joblessness among black workers remains much higher than average, here also, there was a major reduction. For the black workforce, the unemployment rate fell from a double digit level of 17.6 percent in 1990 to 7.7 percent in 1997. The 1997 jobless rate figures for males and females were about half their levels at the beginning of the decade. The male unemployment rate (for all races) dropped from 9.3 to 4.2 percent and the female rate from 7.4 to 3.5 percent.

Occupational trends provide another perspective on the unemployment situation and can offer some insights into the convergence between the Southeast Michigan and U.S. unemployment rates in the 1990s. Comparing unemployment rates by occupation for 1990 shows the regional rates higher in all categories (**Table 4**). The differences varied considerably, however, depending on occupation. The rates for managerial, professional and technical occupations were fairly close. The clerical and sales unemployment gap was somewhat larger. The service and "blue collar" (precision production, assemblers, material moving, handlers, etc.) occupation unemployment rates were much higher than the U.S. equivalents. The regional unemployment rate for machine operatives was 12.9 percent while the U.S. figure was only 8.1 percent. Similarly, the rates for transport operatives were 13.7 percent in the region and 6.3 percent nationally. In 1997, Southeast Michigan's unemployment rates by occupation were lower in all the major categories, except the service and precision production, craft and repair occupations.

In the 1990s, however, the largest drops in Southeast Michigan unemployment have been focused on those occupational groups that showed the largest excess of unemployment relative to the U.S. In other words, Southeast Michigan entered the 1990s with a structural unemployment problem in the blue collar occupations. With steady manufacturing employment levels plus the surge in construction jobs, this problem has been eliminated and has helped cut unemployment dramatically in Southeast Michigan.

## Issues Facing Southeast Michigan's Economy

There are two concerns that surface prominently and with some regularity in assessing Southeast Michigan's economic prospects. Is Southeast Michigan's economy more stable than it was previously? How diversified is the region's economy? Extended low unemployment is also some cause for concern since the issue of labor shortages becomes more significant.

### **Economic stability improves dramatically**

Southeast Michigan has experienced a reasonably smooth ride in the 1990s, with the region's economy displaying a stability and steadiness that were noticeably absent in the previous decade. There have been none of the major economic swings and worker dislocations that buffeted the labor market in the 1980s. This shift from a volatile, recession prone economy to a more stabilized economy can be measured by comparing the region's 1990s change in employment year-over-year by month with the equivalent 1980s pattern using a simple statistical procedure known as standard deviation. In this context, the standard deviation — hereafter referred as volatility index — is measuring the dispersion of employment growth rates from the average growth rate. A large index figure indicates high volatility and a small index indicates low volatility.

This approach to assessing Southeast Michigan's economy indicates that the labor market was much more stable in the 1990s than the 1980s (a volatility index of 1.83 for the 1990s compared to 4.14 in the 1980s). This is a very significant turn around, given the severe negative impacts, especially job losses, experienced during the 1980s. Comparing the region's employment change against U.S. levels clearly show that Southeast Michigan's regional pattern has converged markedly with the U.S. pattern — which has also become more stable. The volatility index figures for the U.S. were 1.91 for the 1980s and 1.41 for the 1990s. The 1980s figure for Southeast Michigan (4.14) was more than double the U.S. statistic (1.91). Looking at the figures for the 1990s, however, indicates that U.S. (1.41) and region (1.87) statistics are fairly close. In other words, to the extent that the events of the 1980s gave Southeast Michigan a negative reputation for economic volatility, it can now be argued that this perception is outdated and invalid. The drop in volatility is evidence that the Southeast Michigan economy is in a significantly better position today than it was 10 years ago to withstand the negative impacts of a recession or long downturn in the economy.

The significance of Southeast Michigan's improved economic situation can be further illustrated by comparing the volatility rankings of the nation's 32 largest metropolitan areas. As **Table 5** indicates, Southeast Michigan ranks 16th in employment volatility of the largest metropolitan areas. In other words, the region's economy is more stable than the Phoenix, Boston, Atlanta, Los Angeles, New York, Miami, Baltimore, Dallas and Seattle metropolitan areas. And, Southeast Michigan is slightly more volatile than the Philadelphia, Cleveland and Portland metropolitan areas. Another way of putting the economic situation significance in perspective is by comparing employment growth of metro areas. The metro

Table 4  
**Unemployment by Occupation. 1990 and 1997**  
(Unemployment rates)

	1990	1997	Change, 1990 - 1997	
			Numeric	Percent
<b>Southeast Michigan</b>				
Executive, Managers & Related	3.1	1.7	-1.4	-45.2
Professional Specialty & Technical	2.5	0.8	-1.7	-68.0
Sales	7.7	2.6	-5.1	-66.2
Administrative Support & Clerical	6.1	3.0	-3.1	-50.8
Service	9.5	4.9	-4.6	-48.4
Precision Production, Craft & Repair	8.7	3.5	-5.2	-59.8
Operators, Assemblers & Inspectors	12.9	6.1	-6.8	-52.7
Transportation & Material Moving	13.7	7.3	-6.4	-46.7
Handlers, Helpers & Laborers	13.5	10.6	-2.9	-21.5
<b>Michigan</b>				
Executive, Managers & Related	2.2	1.0	-1.2	-54.5
Professional Specialty & Technical	2.6	1.8	-0.8	-30.8
Sales	6.3	3.0	-3.3	-52.4
Administrative Support & Clerical	5.1	3.1	-2.0	-39.2
Service	6.6	5.0	-1.6	-24.2
Precision Production, Craft & Repair	9.2	4.2	-5.0	-54.3
Operators, Assemblers & Inspectors	9.8	5.6	-4.2	-42.9
Transportation & Material Moving	8.8	6.3	-2.5	-28.4
Handlers, Helpers & Laborers	12.0	8.4	-3.6	-30.0
<b>United States</b>				
Executive, Managers & Related	2.3	2.0	-0.3	-13.0
Professional Specialty & Technical	1.9	2.1	0.2	10.5
Sales	4.7	4.9	0.2	4.3
Administrative Support & Clerical	4.1	3.8	-0.3	-7.3
Service	6.6	6.7	0.1	1.5
Precision Production, Craft & Repair	5.8	4.8	-1.0	-17.2
Operators, Assemblers & Inspectors	8.1	6.5	-1.6	-19.8
Transportation & Material Moving	6.3	5.4	-0.9	-14.3
Handlers, Helpers & Laborers	11.6	11.1	-0.5	-4.3

Sources: David Macpherson and U.S. Bureau of Labor Statistics

areas with the fastest employment growth were Phoenix, Atlanta, Portland and Denver at 4.6 , 3.7, 3.5 and 3.3 percent per year on average, respectively, compared to Southeast Michigan's growth rate of 1.3 percent per year. While Southeast Michigan's growth rate is significantly smaller than these rates, the job growth experienced in the region has occurred in industries and job occupations less impacted by a recessionary period, thus moving Southeast Michigan's labor market to greater stability in the 1990s. This job growth, in part, occurred in industries taking advantage of the supply of skilled labor within Southeast Michigan. For example, business services, health care, engineering, medical products development, electronics, computer software development and data processing jobs have shown employment gains.

### **Auto industry diversifies**

While analysis of the stability issue is fairly straightforward, the diversification issue is more complex. One problem is that some unique and very important features of the vehicle industry's presence in Southeast Michigan are often overlooked. Southeast Michigan is widely regarded as the "auto capital" of the U.S. — and perhaps even the world. Typically, this means that the region's manufacturing plants are the largest concentration of producers and assemblers of motor vehicles, which, of course, they are. Less well recognized, however, is the implication for the region's economy of being the headquarters location of three of the world's largest vehicle companies. The headquarters role includes extensive administrative, marketing, financial and technological functions. These functions create an extensive service network in the area, supporting a large white collar employment base in addition to the many production related blue collar jobs in the industry. In other words, in Southeast Michigan, the auto sector itself is a much more diversified entity than is often realized.

The technology aspect of auto industry diversification has been particularly prominent over the last decade. One of the most important tools in the auto industry's comeback strategy has been investment in new model development and technology for productivity improvement. Between 1987 and 1996, worldwide research and development spending by GM, Ford and Chrysler totaled more than \$117 billion. A significant share of this spending has flowed into Southeast Michigan, where it supports engineering, computer and other technical jobs. In addition, many auto industry suppliers have relocated or concentrated their research facilities in Southeast Michigan. Proximity to their customers is now vital for technical staffs of upper tier suppliers, who have been charged with extensive product engineering and integration responsibilities. Many of the foreign nameplate producers have also located research and development centers in Southeast Michigan to take advantage of the pool of skilled industry talent available locally. Since 1990, Toyota, Nissan, Hyundai, Isuzu and Fiat have moved into the region and opened new technical centers.

The structural evolution of Southeast Michigan's labor force offers another perspective on the diversification question. It is quite clear that the Southeast Michigan profile has

Table 5  
**Economic Volatility Index and Related Statistics of Metropolitan Areas, 1990 - 1997**

Metropolitan Areas	Ranking	Volatility Index	Annual Employment Growth Rate(%)	Employment Growth Ranking	Average Wage & Salary Employment 1990 -1997	Wage & Salary Ranking
Phoenix-Mesa, AZ	1	2.97	4.60	1	1,147.2	16
Boston, MA	2	2.97	0.71	24	1,793.3	8
Tampa-St. Petersburg-Clearwater, FL	3	2.69	2.80	6	943.5	22
Atlanta, GA	4	2.49	3.66	2	1,704.6	10
Los Angeles-Long Beach, CA	5	2.49	-0.90	33	3,842.2	3
New York PMSA, NY	6	2.36	-0.59	32	3,864.7	2
Nassau-Suffolk, NY	7	2.31	-0.03	30	1,086.5	18
San Francisco, CA	8	2.31	0.59	27	932.9	23
Orange County, CA	9	2.27	0.70	25	1,156.2	15
Miami, FL	10	2.10	1.26	17	902.5	26
Newark, NJ	11	2.08	-0.22	31	928.0	25
Baltimore, MD	12	2.06	0.18	29	1,124.8	17
Dallas, TX	13	2.04	3.13	5	1,537.1	11
San Diego, CA	14	2.00	1.20	19	976.7	21
Seattle-Bellevue-Everett, WA	15	1.95	2.14	11	1,173.1	14
<b>SOUTHEAST MICHIGAN</b>	16	1.87	1.32	15	2,197.5	6
Philadelphia PMSA, PA-NJ	17	1.83	0.22	28	2,184.6	7
Cleveland-Lorain-Elyria, OH	18	1.71	0.90	22	1,079.8	19
Oakland, CA	19	1.67	1.14	21	893.1	27
Portland-Vancouver, OR-WA	20	1.67	3.45	3	799.8	29
Kansas City, MO-KS	21	1.61	2.22	8	833.6	28
Washington, DC	22	1.54	0.82	23	2,368.3	5
St. Louis, MO-IL	23	1.53	1.18	20	1,217.8	13
Chicago, IL	24	1.48	1.23	18	3,807.3	4
Houston, TX	25	1.45	2.33	7	1,716.3	9
Columbus, OH	26	1.43	2.15	9	749.2	33
<b>UNITED STATES</b>	27	1.41	1.61	13	113,763.0	1
Cincinnati, OH-KY-IN	28	1.25	1.58	14	786.1	30
Minneapolis-St. Paul, MN-WI	29	1.19	2.15	10	1,485.4	12
Indianapolis, IN	30	1.18	2.00	12	766.7	32
Milwaukee-Waukesha, WI	31	1.12	1.27	16	784.1	31
Denver, CO	32	1.07	3.30	4	932.6	24
Pittsburgh, PA	33	0.72	0.67	26	1,039.1	20

Note: Volatility Index = Standard deviation of year-over-year by month employment change from 1990 to 1997.

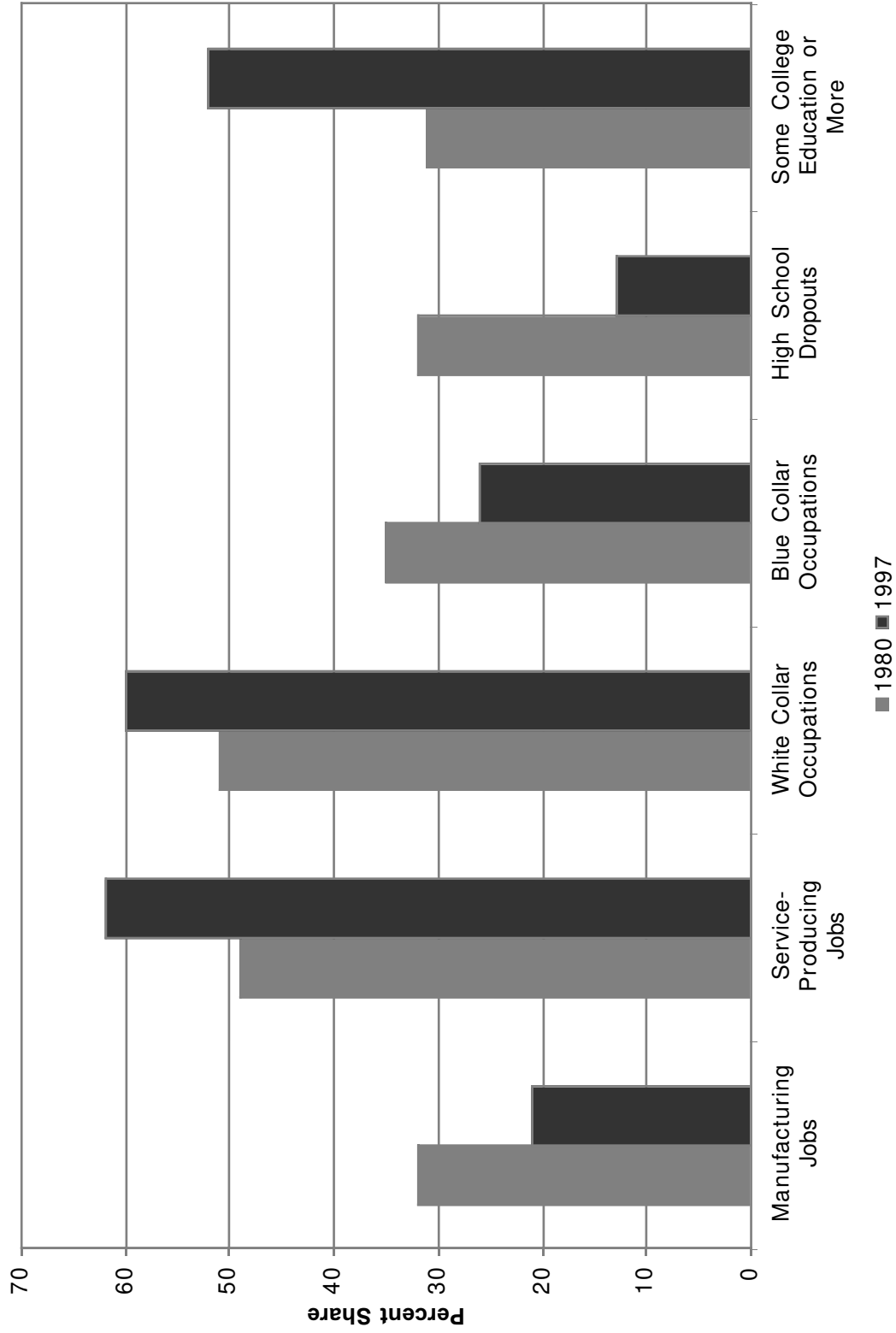
Sources: Abel Feinstein and SEMCOG DataCenter

changed substantially in terms of occupation, industry classification and education over the last two decades (**Figure 3**). In 1980, the blue collar craft — operative and labor occupations — accounted for 35 percent of the region's labor force. The white collar occupations — managerial, professional, technical, sales and administrative support — comprised 51 percent of the labor force. By 1997, the white collar share of the labor force was up to 60 percent. Conversely, the proportion of blue collar workers declined to 26 percent.

Examining the industry trend, the proportion of Southeast Michigan jobs classified as manufacturing stood at 32 percent in 1980. In 1997, manufacturing accounted for 21 percent of regional jobs. An important shift within the manufacturing sector has been the much expanded role of supplier firms. During this same time period the private service producing sector has recorded large gains in employment share. In 1980, approximately 49 percent of jobs in the region were part of this industry sector. By 1997, private service sector jobs had increased to 62 percent.

In addition, Southeast Michigan's educational profile has been substantially reshaped, with the level of educational attainment showing a strong upward trend. (Educational attainment statistics are typically reported for the population 25 years of age and older on the assumption that most schooling has been completed by that age.) Altogether, 31 percent of the region's 25+ population reported either some college education or four years or more of college in 1980. By 1997, this figure had climbed to 52 percent. At the same time, the number of high school dropouts fell sharply from 32 percent in 1980 to 13 percent in 1997.

Figure 3  
**Structural Changes in Southeast Michigan's Economy**  
 (Selected Indicators)



Sources: Able Feinstein, David Macpherson and SEMCOG DataCenter

**Regional outlook: Greater stability, lower unemployment**

All these structural shifts suggest that Southeast Michigan's labor market is moving in the direction of greater stability and lower unemployment. Historically, the service sector has been more stable cyclically than manufacturing. Now, however, the manufacturing sector has become more cyclically stable. Supplier firms have a more diverse customer base, and vehicle companies adjust production by reducing work hours rather than laying off workers. Generally, unemployment rates in white collar occupations are lower than in the blue collar categories. Educated and skilled workers are much less likely to be unemployed than unskilled, less educated workers.

Through much of the 1980s, labor surpluses were a problem for Southeast Michigan. Now with the strong economy of the 1990s, Southeast Michigan is facing labor shortages. This is a serious problem for employers and raises the question of how much job growth the labor market can sustain. About 40 percent of job growth since 1990 is attributable to falling unemployment. However, since unemployment is unlikely to fall much further, future employment growth will be more restrained. The region will need to retain workers, attract needed workers with specialized skills and encourage higher labor force participation to maintain this employment growth rate.

Southeast Michigan's economy has been and will continue to be tied to the automotive industry. To withstand any future downturn in the region's economy requires an economic strategy that focuses on upgrading the capacity of the region's business, financial, educational and governmental institutions to provide the workforce, technology, financing and other resources needed to maintain the competitiveness of the auto/manufacturing industry and to assist in the growth of new industries. Nevertheless, the negative impact of an economic downturn on the region will be less severe today than those experienced in the 1970s and 1980s. This speaks well of the continued attractiveness of Southeast Michigan to lure high-wage jobs, businesses and economic development to the region.

## Appendices

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Table A-1  
**Vehicle Sales, 1990 - 1997**  
(Millions of units)

	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997	
									Numeric	Percent
Total Domestic Sales	14,146	12,540	13,116	14,198	15,411	15,115	15,457	15,500	1,354	9.6
GM, Ford and Chrysler (Big 3)	10,040	8,774	9,392	10,371	11,136	10,914	11,135	10,936	896	8.9
Big 3 Percent Share	71.0	70.0	71.6	73.0	72.3	72.2	72.0	70.6	-0.4	-0.6

Note: In addition, other domestic manufacturers produce approximately 200,000 heavy trucks per year.

Source: American Automobile Manufacturers Association

**Table A-2**  
**Southeast Michigan Labor Market and Industry Employment Trends, 1990 - 1997**  
 (Numbers in thousands)

	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997	
									Numeric	Percent
<b>Labor Force</b>										
Employment	2,375.0	2,349.0	2,387.0	2,399.0	2,405.0	2,392.0	2,487.0	2,524.0	149.0	6.3
Unemployment	2,199.0	2,136.0	2,177.0	2,231.0	2,272.0	2,276.0	2,380.0	2,430.0	231.0	10.5
Unemployment Rate (%)	176.0	213.0	210.0	168.0	133.0	116.0	107.0	94.0	-82.0	-46.6
	7.4	9.0	8.8	7.0	5.5	4.9	4.3	3.7	-3.7	-50.0
<b>Wage and Salary Employment</b>										
Mining	2,139.6	2,083.3	2,094.7	2,132.7	2,198.3	2,261.8	2,311.8	2,347.0	207.4	9.7
Construction	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0
Manufacturing	68.9	62.0	61.0	63.4	68.5	74.7	82.1	89.0	20.1	29.2
Private Service	492.7	463.9	463.6	467.8	489.9	502.9	500.0	495.6	2.9	0.6
Transportation, Communication & Utilities	1,280.0	1,260.8	1,272.3	1,302.9	1,343.2	1,388.0	1,433.3	1,465.2	185.2	14.5
Wholesale Trade	94.4	89.9	89.5	90.9	93.3	96.5	98.8	100.7	6.3	6.7
Retail Trade	120.4	119.2	120.3	121.0	123.5	127.5	131.1	135.5	15.1	12.5
Eat & Drink	388.3	377.7	373.7	378.6	386.8	396.4	401.9	404.4	16.1	4.1
Other Retail	134.0	131.9	133.0	136.0	137.9	142.2	142.8	141.6	7.6	5.7
Finance, Insurance & Real Estate	254.3	245.8	240.7	242.6	248.9	254.2	259.1	262.8	8.5	3.3
Depository Institutions	117.8	116.8	116.0	118.5	118.7	116.3	121.0	122.2	4.4	3.7
Other Finance, Insurance & Real Estate	42.6	41.1	39.8	38.8	38.1	36.4	38.8	38.3	-4.3	-10.1
Services	75.2	75.7	76.2	79.7	80.6	79.9	82.2	83.9	8.7	11.6
Business, Engineering & Management	558.0	557.2	572.8	593.9	620.9	651.3	680.5	702.4	144.4	25.9
Health Services	181.3	176.9	186.2	197.2	213.2	234.0	251.5	263.8	82.5	45.5
Other Services	174.3	180.9	184.2	190.0	195.1	198.7	202.6	207.6	33.3	19.1
Government	202.4	199.4	202.4	206.7	212.6	218.6	226.4	231.0	28.6	14.1
Federal	296.9	296.4	296.7	299.4	294.6	295.3	295.6	296.4	-0.5	-0.2
State & Local	35.4	34.2	33.4	33.4	33.5	33.9	33.6	33.0	-2.4	-6.8
Education	260.5	262.2	263.3	265.9	261.1	261.4	262.0	263.4	2.9	1.1
Other State & Local	154.7	155.3	158.3	162.2	158.2	159.4	158.7	160.9	6.2	4.0
	105.8	106.9	105.0	103.7	102.9	102.0	103.3	102.5	-3.3	-3.1

Sources: U.S. Bureau of Labor Statistics, MJC/Employment Service Agency and SEMCOG DataCenter

Table A-3  
**Michigan Labor Market And Industry Employment Trends, 1990 - 1997**  
 (Numbers in thousands)

	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997	
									Numeric	Percent
<b>Labor Force</b>										
Employment	4,598.4	4,592.2	4,690.3	4,753.4	4,823.2	4,813.9	4,909.3	4,985.6	387.2	8.4
Unemployment	4,248.0	4,165.4	4,273.7	4,418.0	4,538.6	4,556.4	4,670.1	4,775.9	527.9	12.4
Unemployment Rate (%)	350.4	426.8	416.6	335.3	284.6	257.5	239.2	209.8	-140.6	-40.1
	7.6	9.3	8.9	7.1	5.9	5.3	4.9	4.2	-3.4	-44.7
<b>Wage and Salary Employment</b>										
Mining	3,969.6	3,891.1	3,927.4	4,005.8	4,146.8	4,273.9	4,360.7	4,446.0	476.4	12.0
Construction	9.4	9.1	8.9	8.8	8.7	8.4	7.6	7.6	-1.8	-19.1
Manufacturing	142.3	129.1	128.3	132.7	142.6	152.7	168.0	180.3	38.0	26.7
Private Service	943.6	896.7	900.6	908.3	951.5	979.7	971.7	967.2	23.6	2.5
Transportation, Communication & Utilities	2,240.5	2,220.2	2,250.6	2,316.6	2,405.0	2,492.1	2,569.6	2,641.9	401.4	17.9
Wholesale Trade	158.4	154.1	154.3	156.7	162.6	167.0	170.4	173.1	14.7	9.3
Retail Trade	201.8	199.1	197.2	200.4	206.4	214.2	219.6	226.8	25.0	12.4
Eat & Drink	747.6	731.9	728.3	742.5	764.5	789.5	805.6	817.0	69.4	9.3
Other Retail	257.5	253.8	255.7	263.1	269.6	280.2	285.3	287.8	30.3	11.8
Finance, Insurance & Real Estate	490.1	478.1	472.6	479.4	494.9	509.3	520.3	529.2	39.1	8.0
Depository Institutions	191.0	189.6	191.2	194.6	196.9	196.3	202.4	206.3	15.3	8.0
Other Finance, Insurance & Real Estate Services	72.9	71.2	69.9	69.0	68.4	66.8	68.9	70.0	-2.9	-4.0
Business, Engineering & Management	118.1	118.4	121.3	125.6	128.5	129.5	133.5	136.3	18.2	15.4
Health Services	941.7	945.5	979.6	1,022.4	1,074.6	1,125.1	1,171.6	1,218.7	277.0	29.4
Other Services	259.4	252.0	268.1	285.5	319.0	347.9	370.3	398.1	138.7	53.5
Government	305.0	317.4	323.6	337.0	344.4	351.8	359.5	366.2	61.2	20.1
Federal	377.3	376.1	387.9	399.9	411.2	425.4	441.8	454.4	77.1	20.4
State & Local	633.9	635.8	639.0	639.4	638.9	640.9	643.8	649.1	15.2	2.4
Education	61.2	58.3	58.2	56.9	57.0	57.2	56.5	55.8	-5.4	-8.8
Other State & Local	572.7	577.5	580.8	582.5	581.9	583.7	587.3	593.3	20.6	3.6
	319.7	326.3	330.6	335.3	332.2	334.2	336.9	342.1	22.4	7.0
	253.0	251.2	250.2	247.2	249.7	249.5	250.4	251.2	-1.8	-0.7

Sources: U.S. Bureau of Labor Statistics, MJC/Employment Service Agency and SEMCOG DataCenter

**Table A-4**  
**United States Labor Market and Industry Employment Trends, 1990 - 1997**  
 (Numbers in thousands)

	1990	1991	1992	1993	1994	1995	1996	1997	Change, 1990 - 1997	
									Numeric	Percent
<b>Labor Force</b>										
Employment	125,840.0	126,307.0	128,099.0	129,172.0	131,054.0	132,309.0	133,941.0	136,233.0	10,393.0	8.3
Unemployment	118,793.0	117,718.0	118,492.0	120,259.0	123,060.0	124,900.0	126,708.0	129,558.0	10,765.0	9.1
Unemployment Rate (%)	7,047.0	8,589.0	9,607.0	8,913.0	7,994.0	7,409.0	7,233.0	6,675.0	-372.0	-5.3
	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	-0.7	-12.5
<b>Wage and Salary Employment</b>										
Mining	109,403.0	108,249.0	108,601.0	110,713.0	114,163.0	117,191.0	119,608.0	122,690.0	13,287.0	12.1
Construction	709.0	689.0	635.0	610.0	601.0	581.0	580.0	592.0	-117.0	-16.5
Manufacturing	5,120.0	4,650.0	4,492.0	4,668.0	4,986.0	5,160.0	5,418.0	5,686.0	566.0	11.1
Private Service	19,076.0	18,406.0	18,104.0	18,075.0	18,321.0	18,524.0	18,495.0	18,657.0	-419.0	-2.2
Transportation, Communication & Utilities	66,194.0	66,102.0	66,725.0	68,519.0	71,128.0	73,620.0	75,697.0	78,185.0	11,991.0	18.1
Wholesale Trade	5,777.0	5,755.0	5,718.0	5,811.0	5,984.0	6,132.0	6,253.0	6,395.0	618.0	10.7
Retail Trade	6,173.0	6,081.0	5,997.0	5,981.0	6,162.0	6,378.0	6,482.0	6,648.0	475.0	7.7
Eat & Drink	19,601.0	19,284.0	19,356.0	19,773.0	20,507.0	21,187.0	21,597.0	22,011.0	2,410.0	12.3
Other Retail	6,509.1	6,476.3	6,609.3	6,821.4	7,077.8	7,354.2	7,516.6	7,635.8	1,126.7	17.3
Finance, Insurance & Real Estate	13,091.9	12,807.7	12,746.7	12,951.6	13,429.2	13,832.8	14,080.4	14,375.2	1,283.3	9.8
Depository Institutions	6,709.0	6,646.0	6,602.0	6,757.0	6,896.0	6,806.0	6,911.0	7,091.0	382.0	5.7
Other Finance, Insurance & Real Estate	2,250.5	2,164.2	2,095.7	2,088.8	2,065.7	2,025.1	2,018.6	2,027.0	-223.5	-9.9
Services	4,458.5	4,481.8	4,506.3	4,668.2	4,830.3	4,780.9	4,892.4	5,064.0	605.5	13.6
Business, Engineering & Management	27,934.0	28,336.0	29,052.0	30,197.0	31,579.0	33,117.0	34,454.0	36,040.0	8,106.0	29.0
Health Services	7,616.9	7,519.6	7,786.1	8,255.6	8,859.2	9,543.5	10,137.3	10,987.5	3,370.6	44.3
Other Services	7,814.3	8,182.9	8,490.0	8,755.9	8,991.9	9,230.4	9,477.9	9,719.5	1,905.2	24.4
Government	12,502.8	12,633.5	12,775.9	13,185.5	13,727.9	14,343.1	14,838.8	15,333.0	2,830.2	22.6
Federal	18,304.0	18,402.0	18,645.0	18,841.0	19,128.0	19,305.0	19,419.0	19,570.0	1,266.0	6.9
State & Local	3,085.0	2,966.0	2,969.0	2,915.0	2,871.0	2,821.0	2,757.0	2,700.0	-385.0	-12.5
Education	15,219.0	15,436.0	15,676.0	15,926.0	16,257.0	16,484.0	16,662.0	16,870.0	1,651.0	10.8
Other State & Local	7,771.4	7,903.3	8,018.1	8,187.0	8,360.9	8,524.6	8,658.8	8,824.7	1,053.3	13.6
	7,447.6	7,532.7	7,657.9	7,739.0	7,896.1	7,959.4	8,003.2	8,045.3	597.7	8.0

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