

# Michigan Personal Income



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## **Acknowledgements**

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The report is available electronically at the Department of Treasury's Web site: <http://www.michigan.gov/treasury>.

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## **Michigan Personal Income Executive Summary**

### **Michigan**

- Michigan personal income for 2001 totaled \$297.6 billion according to the U.S. Department of Commerce September 23, 2002, release. In 2001, Michigan personal income grew 1.3 percent, the slowest income growth among U.S. states. Nationally, personal income grew 3.3 percent last year.
- Michigan income per person was \$29,788 in 2001, equal to 97.8 percent of the \$30,472 national average. Michigan ranked 18<sup>th</sup> nationally in income per person in 2001, down from 17<sup>th</sup> in 2000 but up from 20<sup>th</sup> a decade earlier. In 2001, Michigan income per person grew 0.9 percent, the second slowest state growth. Nationally, income per person grew 2.4 percent.
- Over the 1991-2000 expansion period, Michigan real (inflation adjusted) income per person grew faster than the national average. Over this time period, Michigan real income per person growth averaged 2.0 percent per year compared with 1.8 percent per year nationally. Michigan real wage income per person rose 2.6 percent per year compared with 2.3 percent growth nationally.
- In 2001, Michigan's real income per person declined 1.7 percent compared with a 0.5 percent national decline. Real wages per person fell 4.4 percent in Michigan and fell 1.6 percent nationally.
- Private services income growth accounted for 39.2 percent of Michigan real per person wage growth during the 1991-2000 expansion -- 8.2 percentage points more than in the 1982-1989 expansion period. Manufacturing accounted for 25.0 percent of wage growth during the 1991-2000 expansion years. In the 2001 recession year, manufacturing wages fell 11.2 percent and accounted for 80.7 percent of the 2001 Michigan wage decline.

### **Metro Area**

- The most recent metropolitan area data available was released May 6, 2002, and includes information through 2000, the last year of the economic expansion.
- Among the state's nine metropolitan statistical areas (MSAs), Ann Arbor and Detroit reported the highest income per person at \$33,987 and \$33,259 per person respectively. These two areas also reported the strongest real income per person growth during the 1991-2000 expansion with 2.4 percent and 2.2 percent annual growth respectively.
- Over the first half of the 1991-2000 expansion (1991-1995), Michigan and all of its nine MSAs recorded faster real income per person growth than the national average. However, over the second half of the upturn, Michigan and all of its nine MSAs reported personal income growth slower than the national average.

## **Michigan Personal Income Growth**

Between March 1991 and March 2001, the U.S. underwent its longest economic expansion in history. Following this record expansion, the U.S. economy fell into recession. The report focuses on annual personal income changes over this time period (1991 through 2001). As a means to provide historical context, the report compares Michigan personal income behavior in prior expansions and recessions. The report also considers local area personal income growth over the past decade.

Personal income measures all sources of income received by Michigan residents. When calculated on a per person basis and adjusted for inflation, real personal income is one of the best measures of economic well-being at the state level. Gross State Product is another good measure of economic well-being, but it is not available on a timely basis. Preliminary personal income data are released in April each year and revised in September. The latest data include revisions for the years 1999 through 2001 for the U.S. and all states. Income data for the metropolitan areas (defined as the counties surrounding major urban areas) are only available through 2000.

Because BEA's measure of personal income seeks to reflect current economic activity, personal income does not include capital gains or losses realizations. With only modest capital gains realizations in the early 1990s, the difference in growth between household income (including capital gains realizations) and BEA defined personal income was slight (0.2 of a percentage point, on average). Thus, BEA's measure of personal income growth closely matched household income growth including capital gains realizations. However, capital gains realization surged between 1995 and 2000, averaging 29.2 percent annual growth over this period. As a result, BEA's measure of personal income substantially understated household income including capital gains realizations by 0.9 of a percentage point. Conversely, with the substantial decline in capital gains realizations in 2001, BEA measured personal income growth substantially overstated 2001 household income growth, including capital gains realizations. While BEA measured U.S. personal income grew 3.3 percent in 2001, combined personal income and net capital gains realizations declined slightly.

### **Composition of Michigan Personal Income**

Over the past two decades, the composition of Michigan personal income has changed. Between 1981 and 1991, wages share of personal income fell 3.3 percentage points but then rose 1.0 percentage point to 53.9 percent in 2001. Thus, income changes in the 1980s more than account for 2001 wages' smaller share of personal income compared with twenty years earlier. Dividends, interest and rent's share of personal income rose 3.0 percentage points between 1981 and 1991 but changed only slightly during the 1990s. Transfer payments' share of personal income changed little. Proprietor's income share rose 1.3 percentage points between 1981 and 2001. (See Exhibit 1 on next page.)

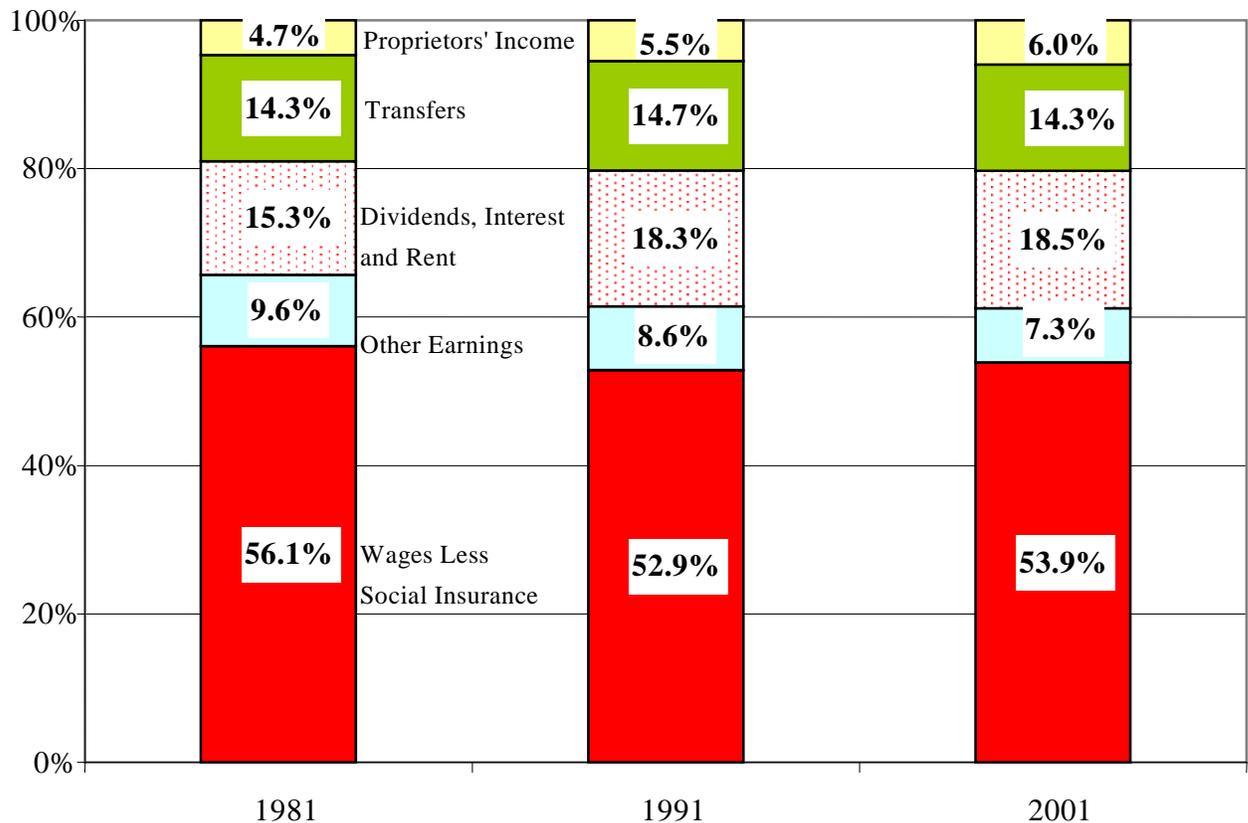
Wages and salaries comprised the majority of Michigan 2001 personal income (53.9 percent). Dividends, interest and rent comprised the second largest share of state personal income (18.5

percent). Transfer payments accounted for the third largest share (14.3 percent).<sup>1</sup> Together, these three income sources accounted for 86.7 percent of Michigan personal income in 2001.

**Nominal Personal Income**

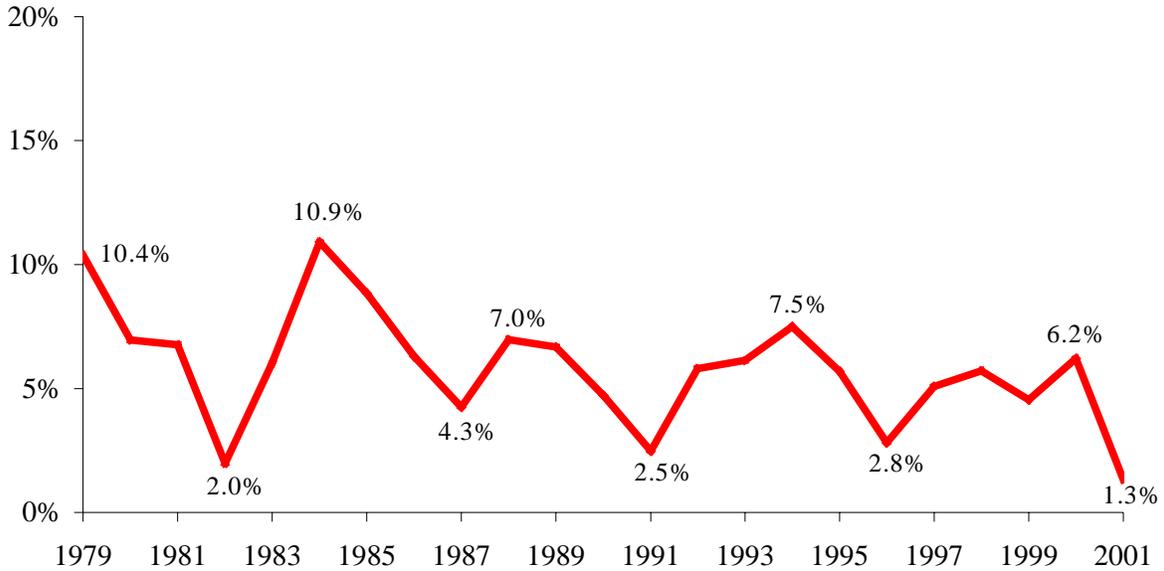
In 2001, Michigan’s personal income totaled \$297.6 billion, 3.4 percent of total U.S. personal income. Among all states, Michigan’s personal income ranked ninth largest. Over the expansion years 1991 through 2000, nominal Michigan personal income growth averaged 5.5 percent compared with 5.8 percent growth nationally. Across Great Lakes states, personal income grew 5.4 percent per year. In 2001, Michigan recorded the slowest personal income growth among U.S. states with 1.3 percent growth, compared with 3.3 percent growth nationally. Exhibit 2 provides a graphical history of Michigan nominal personal income changes over the last twenty years.

**Exhibit 1  
Components of Michigan Personal Income**



<sup>1</sup> Social security income and government medical payments (Medicare and Medicaid) comprised 80 percent of 2001 Michigan transfer income.

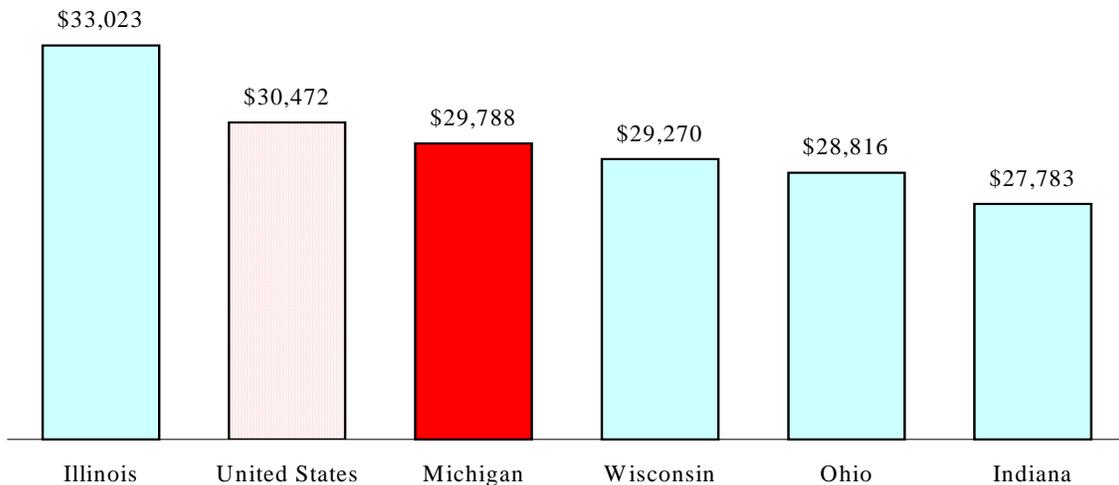
**Exhibit 2**  
**Michigan Nominal Personal Income Growth**



**Nominal Personal Income Per Person**

Dividing a state's personal income by its population provides a good indicator of economic well being per resident. In 2001, Michigan's income per person equaled \$29,788, 97.8 percent of the U.S. income per person of \$30,472. Among U.S. states, Michigan had the 18<sup>th</sup> highest income per person. Among the five Great Lakes states, Michigan ranked second behind Illinois. (See Exhibit 3.)

**Exhibit 3**  
**Michigan's Income Per Person**  
**Ranks Second Among Great Lakes States**  
**2001**



Income per person growth depends upon personal income growth and population. For any given population growth, the faster (slower) a state's personal income growth the faster (slower) its income per person (personal income divided by population) growth. Conversely, for a given personal income growth, the faster (slower) a state's population grows, the slower (faster) its income per person grows.

During the 1991-2000 expansion years, Michigan income per person outpaced national growth. While U.S. income per person grew 4.5 percent per year over this time period, Michigan income per person increased at a 4.8 percent rate. Over the expansion years, Michigan recorded the ninth fastest state income per person growth.

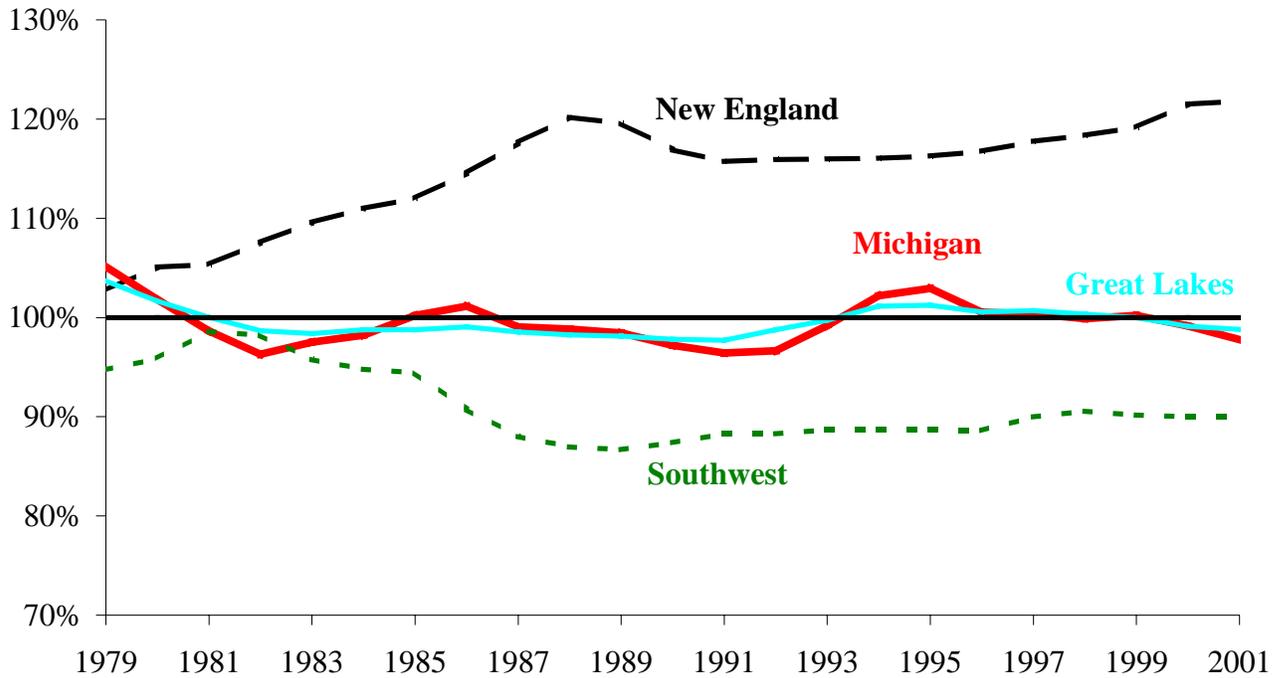
In the 2001 recession year, Michigan income per person grew 0.9 percent, the second slowest growth among U.S. states. Nationally, personal income per person grew 2.4 percent. Michigan's income per person ranking declined compared with 2000 but was two places higher than a decade ago. Over the past decade, Michigan's annual income per person ranking ranged between 16<sup>th</sup> and 20<sup>th</sup>. In 2001, state personal income per person ranged between \$42,435 (Connecticut) and \$21,750 (Mississippi). Connecticut has ranked first every year since 1986. Mississippi has ranked last every year since 1934.

After seven years below the national average, Michigan income per person rose above the national average in 1994. As a percent of the national average, Michigan income per person peaked at 102.9 percent in 1995. Michigan's income per person remained above the national average until 1998 when the state's income per person fell just slightly below the national average. In 1999, the state's income per person again rose above the national average but then fell below the national average in 2000. In 2001, Michigan income per person as a percent of the national average fell to 97.8 percent, its lowest level since 1992.

Over the past decade, regional rankings have changed little. Each year between 1990 and 2001, New England and Mideast region incomes per person far exceeded the national average. The Far West region also remained above the national average each year. At the same time, the Southeast and Southwest regions considerably lagged the national average. While remaining below the national average throughout, the Rocky Mountain region gained ground compared to the national average. The Great Lakes and Plains regions improved against the national average until recently. Through the mid 1990s, the Great Lakes region exceeded the national average but has since fallen below. The gap between the highest income per person and lowest income per person regions changed little through 1998 but has since widened. (See Exhibit 4 on next page.)

Over the past decade, including both the 1991-2000 expansion period and the 2001 recession year, Michigan income per person grew slightly faster than the national average (4.4 percent vs. 4.3 percent). While overall Michigan personal income grew more slowly than the national average (5.1 percent vs. 5.5 percent), Michigan's personal income growth relative to its population increase exceeded the nation's relative income growth.

**Exhibit 4**  
**Michigan's Income Per Person**  
**Has Remained Around U.S. Average**



**Real Income Per Person**

When comparing income per person across time, it is important to account for inflation's impact on buying power. Higher inflation reduces buying power; lower inflation increases purchasing power. To account for the effect of inflation on actual buying power, nominal income per person is adjusted using consumer price indices.<sup>2</sup>

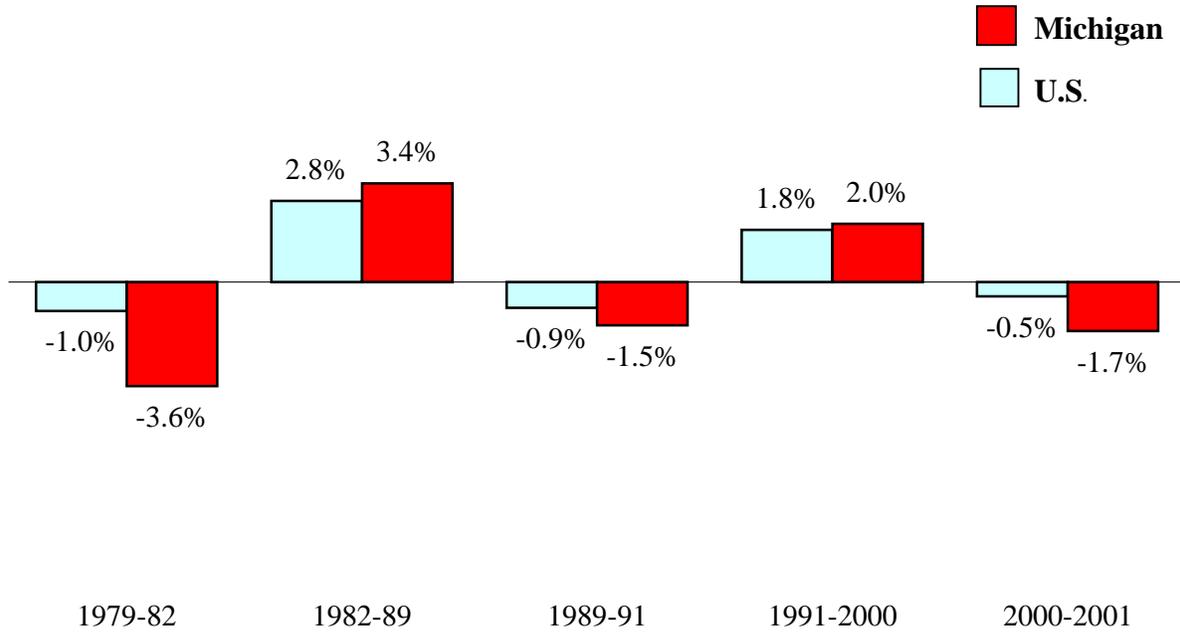
During the recently ended expansion (1991 to 2000), Michigan real (inflation adjusted) income per person growth of 2.0 percent per year outpaced the national income growth rate (1.8 percent). (See Exhibit 5 on next page.) Over this time, Michigan prices grew only slightly faster than they did nationally (2.7 percent per year in Michigan vs. 2.6 percent nationally).

In the recession year 2001, Michigan's real income per person declined faster than nationally. In 2001, Michigan's real income per person fell 1.7 percent, compared with a 0.5 percent decline nationally. In real terms, 2001 Michigan income per person is only slightly higher (0.2 percent) than in 1999. Nationally, 2001 personal income exceeds 1999 personal income by 2.8 percent.

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<sup>2</sup> Nominal personal income is deflated using the all urban consumers' price indices from the Bureau of Labor Statistics, U.S. Department of Labor. For Michigan and metropolitan statistical areas (MSAs), the Detroit consumer price index is used. So that prior year incomes can be compared to current personal income levels, nominal personal income is deflated using 2001 as the base year. That is, the 1982-1984 BLS price indices are adjusted so that the 2001 price index equals 100.

**Exhibit 5**  
**Real Income Per Person Growth**  
**Expansions and Downturns**



Michigan real income per person rose less steeply during the 1991-2000 expansion than in the previous expansion during the 1980s. In the just ended expansion, Michigan real income per person grew 1.4 percentage points slower than during the 1982-1989 expansion period. Similarly, U.S. real income per person grew 1.0 percentage point slower.

Michigan's 2001 real income per person decline slightly exceeded the state's 1990-1991 recession's average decline. However, Michigan's 2001 real income per person decline was only half that of its 3.6 percent rate of decline during the 1979-82 recession year period.

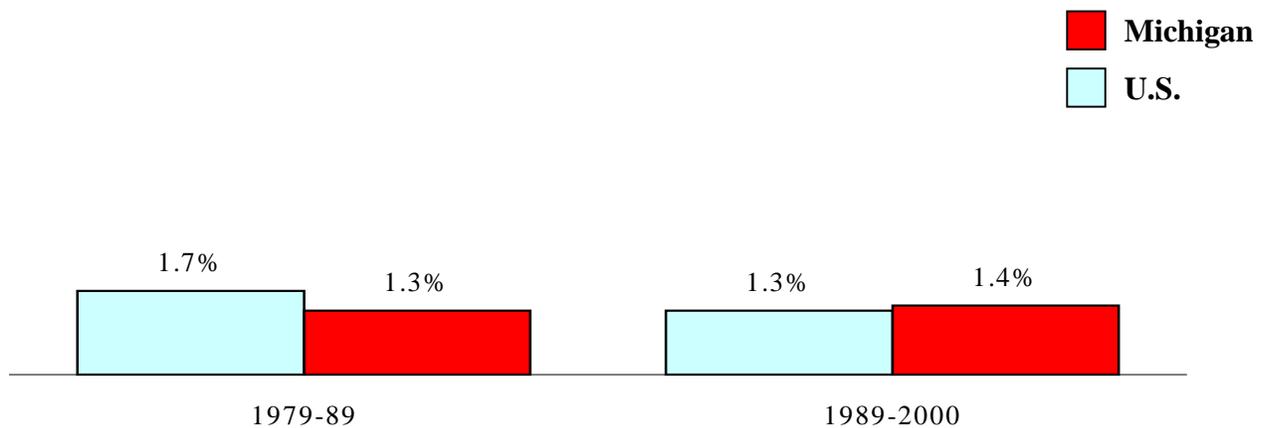
Nationally, the 2001 recession year income decline was only half as large as declines during the two previous recessions. In 2001, U.S. real income per person fell at a 0.5 percent rate. In comparison, national real income per person had declined at a 0.9 percent annual decline during the 1990-1991 recession and had fallen at a 1.0 percent annual rate in the 1980-1982 downturn.

As with the previous expansion and recession period (1982-1991), Michigan's real income per person grew more quickly than overall U.S. real income per person in the upturn but also fell more steeply in the subsequent downturn. The gap between Michigan's and U.S. real income per person growth in the just ended expansion was 0.4 of a percentage point smaller than in the 1982-1989 expansion years (0.2 of a percentage point vs. 0.6 of a percentage point). The difference between Michigan and U.S. real income per person declines widened in 2001 compared with the 1989-91 recession period. While Michigan real income per person fell 0.6 of a percentage point faster than the U.S. in the 1990-1991 downturn, Michigan real income per person declined 1.2 percentage points faster than the nation in the 2001 recession year.

Over the past two business cycles (economic peak to economic peak), Michigan’s real income per person grew at nearly the same rate. (See Exhibit 6.) In the business cycle just ended (1989-2000), Michigan’s real income per person grew at a 1.4 percent rate compared with a 1.3 percent rate of increase between 1979 and 1989. At the national level, real income per person growth slowed from 1.7 percent in the 1979-1989 business cycle period to 1.3 percent in the 1989-2000 business cycle. Thus, Michigan real income per person slightly outpaced the nation in this recent business cycle and the gap between Michigan and U.S. real personal income growth increased from -0.4 of a percentage point to +0.1 percentage point, a 0.5 of a percentage point relative improvement.

Michigan real income per person growth outpaced national growth each year between 1992 and 1995, inclusive. Between 1996 and 1998, Michigan real income per person growth lagged the nation. In 1999, Michigan real income per person growth matched national growth. However in 2000 and 2001, U.S. real income per person growth outpaced Michigan’s growth.

**Exhibit 6**  
**Michigan Real Income Per Person Growth**  
**Exceeded U.S. in Recent Business Cycle**



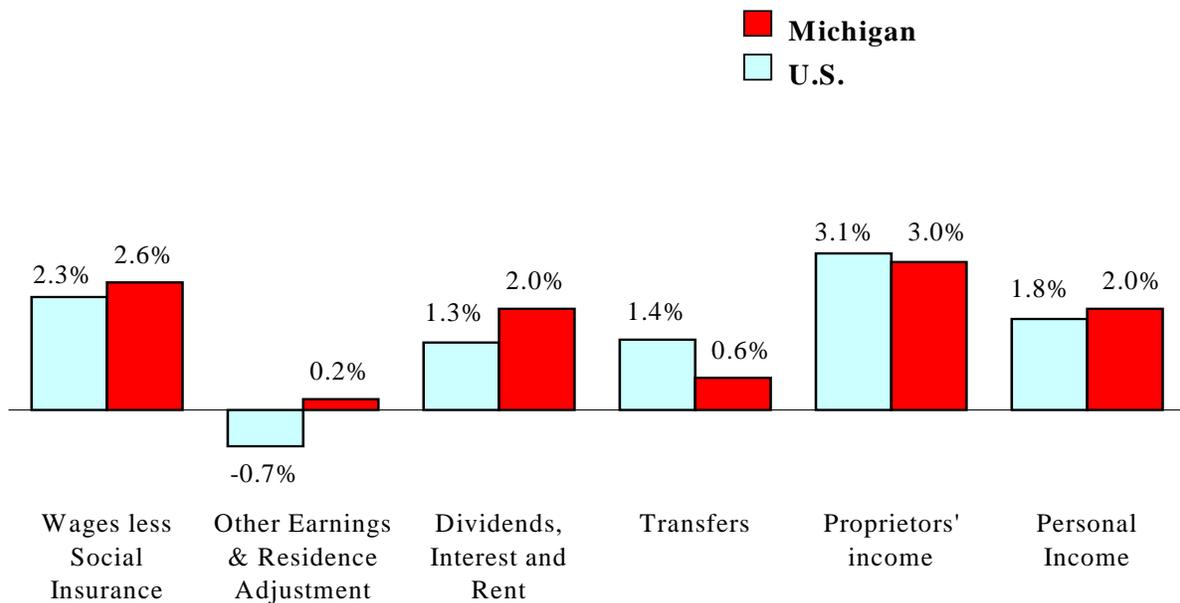
**Components of Real Income Per Person Growth**

This section examines Michigan income growth by income source and by industry to provide some insight into the drivers of the state personal income growth during the expansion and the factors that slowed growth in the recession.

Between 1991 and 2000, real wage and salary income helped push personal income growth higher. (See Exhibit 7.) Real Michigan wage and salary average annual growth substantially

outpaced overall Michigan personal income growth. Proprietor's income also helped boost Michigan's real personal income per person growth. Michigan dividend, interest and rent growth matched overall Michigan personal income growth. Other labor earnings and transfer payments lagged Michigan real personal income growth per person.

**Exhibit 7**  
**Michigan Outpaced National Real Income Per Person**  
**1991-2000**

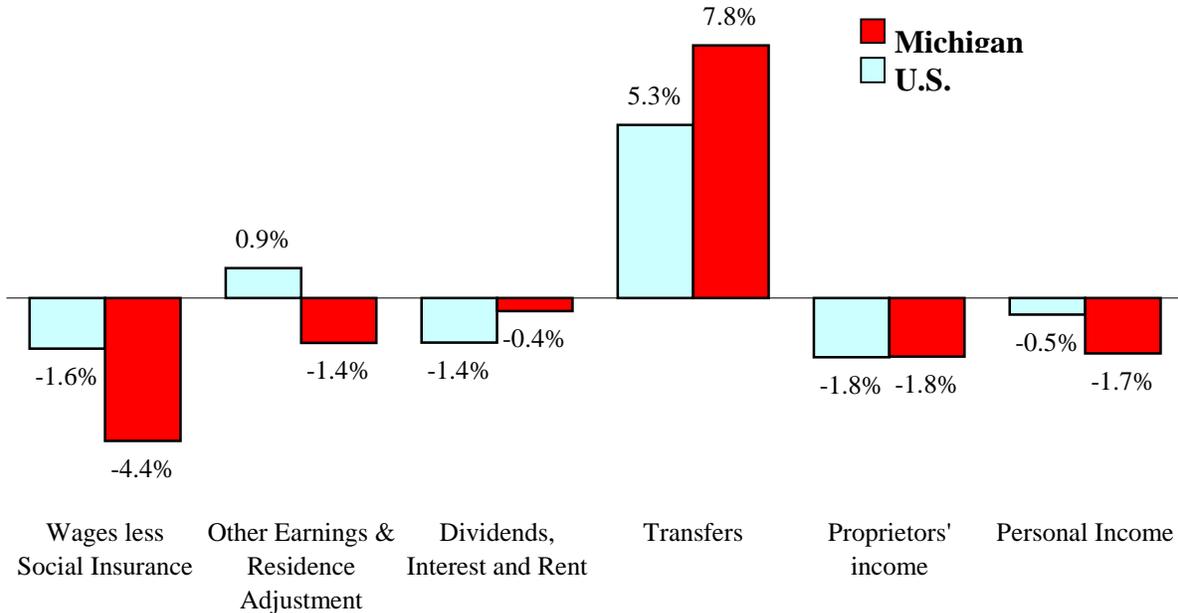


Compared to the nation, Michigan wages and salaries and dividends, interest and rent income grew faster in the 1991-2000 expansion period. Michigan also outpaced the nation in other labor earnings growth. Michigan proprietor income grew only slightly more slowly than the nation as a whole. During the expansion, only Michigan transfer payments grew substantially more slowly than they did nationally.

The Michigan and U.S. comparison of the 2001 slowdown is nearly the mirror image of the expansion just ended. In 2001, Michigan wages and other labor income fell faster than nationally. Michigan real wages and salaries fell more than the decline nationally. (See Exhibit 8 on next page.) While other labor earnings rose nationally, they fell in Michigan.

Michigan and the United States saw the same decline in proprietor's income. Michigan real dividends, interest and rent income per person fell less than they did nationally. Michigan transfer payment growth exceeded national growth.

**Exhibit 8**  
**Michigan Real Income Growth Per Person**  
**Lagged U.S. in 2001**



Given that Michigan wage and salary income rose faster in the expansion and declined more steeply in 2001, a decomposition of Michigan wage growth and declines across industries is instructive. While comprising only 21.2 percent of 1991 wages and salaries, the private services industry accounted for 39.2 percent of real wage and salary per person growth over the just ended expansion. Manufacturing, having accounted for 32.2 percent of 1991 wages and salaries, accounted for only 25.0 percent of the real wage increase. Conversely, construction, comprising only 3.8 percent of 1991 wages and salaries, accounted for the third largest portion of the increase (11.0 percent). These three industries combined accounted for slightly more than three-fourths of the increase over this period. (See Exhibit 9 on page 11.)

Compared with the 1982-1989 expansion, private services accounted for a substantially larger share of real wage per person growth. At the same time, manufacturing accounted for approximately the same share of wage growth. Government accounted for a substantially smaller share of growth in the just ended expansion than in the 1982-89 recovery. While government had been the third largest contributor to wage growth in the 1982-1989 recovery, government accounted for very little of the growth in the just ended expansion, the smallest contribution among the nine major industries. Construction accounted for a substantially larger share of wage growth in the 1991-2000 expansion compared with the 1982-1989 expansion.

As with the 1982-1989 recession, manufacturing accounted for the majority of the 2001 real wage and salary per person decline. In 2001, manufacturing wage declines accounted for 80.7 percent of the wage and salary decline. Similarly, manufacturing wage declines had accounted

for 86.4 percent of wage and salary declines in the 1989-1991 recession period. In both recession periods, manufacturing accounted for a disproportionately large share of the increase. In the 1989-1991 recession, manufacturing's share of wage declines equaled 2.5 times its pre-recession share of wages and salaries. Similarly, in 2001, manufacturing's share of the wage decline equaled 2.6 times its pre-recession share of wages and salaries.

Durable manufacturing accounted for 84.0 percent of manufacturing real wage per person declines in 2001. In the prior recession, durable manufacturing had accounted for 90.4 percent of the manufacturing wage decline. Wholesale trade accounted for 15.4 percent of wage declines in 2001, a substantially larger share than in the 1989-1992 downturn when wholesale trade accounted for 5.9 percent of the reduction. Private services wages, which had increased in the prior recession, fell slightly in 2001.

### **Summary**

Real wage per person declines depend upon several factors including: prices increases, sectoral wage declines and a state's industrial composition. Differences in Michigan's and U.S. 2001 inflation rates explain little of the difference. Prices rose slightly more slowly in Michigan than in the U.S. Thus, slower Michigan price increases slightly reduced the gap between Michigan and U.S. real wage and salary growth per person. In addition, population grew more slowly in Michigan than the U.S. as a whole. Michigan's slower population growth lessened the real wages per person growth gap compared to the U.S.

However, differences in industrial composition between Michigan and the U.S. play a major role in explaining Michigan's slower real wage growth per person compared with the nation. Despite increased diversification, Michigan's economy is substantially more reliant on the manufacturing sector compared with the U.S. While manufacturing comprised 30.7 percent of Michigan's 2000 real wage and salary income per person, manufacturing accounted for only 17.2 percent for the U.S. as whole. Applying the national 2000 wage and salary composition by major industry to Michigan reduces the gap between Michigan and U.S. wage declines by slightly more than half. In addition, Michigan wages and salaries declined more steeply in Michigan compared with the U.S. in all but two major sectors (finance, insurance and real estate, and transportation and public utilities).

**Exhibit 9**  
**Industry Contributions to Michigan Wages & Salaries Growth**

<u>Sector</u>	<u>Recession 1979 to 1982</u>		<u>Expansion 1982 to 1989</u>		<u>Recession 1989 to 1991</u>		<u>Expansion 1991 to 2000</u>		<u>Recession 2000 to 2001</u>	
	<u>Annual Percent Chg</u>	<u>Contrib to to Growth</u>								
Overall Wages & Salaries	-6.8%	-100.0%	3.6%	100.0%	-2.6%	-100.0%	2.5%	100.0%	-4.2%	-100.0%
Agriculture and Mining	-6.9%	-1.0%	2.8%	0.7%	1.5%	0.6%	2.4%	1.0%	-0.8%	-0.2%
Construction	-16.0%	-10.2%	6.2%	6.5%	-7.5%	-11.8%	6.3%	11.0%	-4.9%	-6.1%
Manufacturing	-10.4%	-61.9%	2.6%	25.9%	-6.5%	-86.4%	2.0%	25.0%	-11.2%	-80.7%
Transport and Public Util	-5.7%	-4.8%	1.3%	1.9%	-2.3%	-4.5%	1.5%	2.9%	-1.7%	-1.9%
Wholesale Trade	-6.1%	-4.9%	5.5%	9.2%	-2.4%	-5.9%	3.0%	7.9%	-9.7%	-15.4%
Retail Trade	-6.5%	-8.6%	3.5%	8.8%	-2.1%	-7.3%	1.9%	6.8%	-0.7%	-1.5%
Fin, Insur, and Real Estate	-2.4%	-1.4%	5.3%	6.7%	0.5%	0.9%	2.7%	5.4%	3.7%	4.5%
Services	-0.3%	-0.7%	6.2%	31.0%	1.0%	7.5%	4.3%	39.2%	-0.5%	-2.7%
Government	-2.9%	-6.5%	2.1%	9.2%	1.2%	7.0%	0.1%	0.8%	1.3%	3.9%

Note: Wage figures include social insurance contributions. Thus, overall wages and salaries growth may differ slightly from Exhibits 7 and 8 figures.

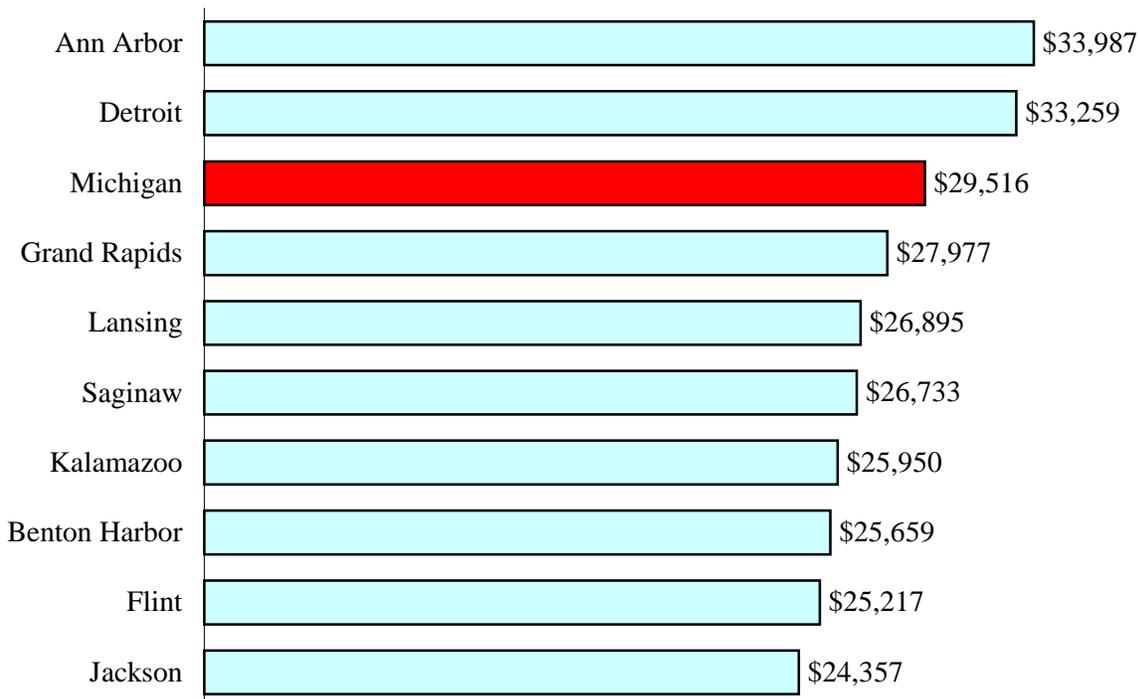
Source: Bureau of Economic Analysis, U.S. Department of Commerce, September 2002.

## **Metropolitan Area Income**

Michigan's nine MSAs accounted for nearly 87 percent of the state's 2000 personal income. The Detroit PMSA accounted for slightly over half of Michigan's personal income while the Grand Rapids MSA comprised about 10 percent.

Income per person and income per person growth across time has varied widely across Michigan's nine metropolitan statistical areas (MSAs).<sup>3</sup> In 2000, the latest year for which MSA data are available, income per person ranged from \$24,357 (Jackson MSA) to \$33,987 (Ann Arbor MSA). Two Michigan MSAs' income per person exceeded the state and U.S. average: Ann Arbor (117 percent of state average, 115 percent of U.S. average) and Detroit's PMSA (114 percent of state average, 113 percent of U.S. average). Among the 318 U.S. MSAs, the Ann Arbor MSA ranked 32<sup>nd</sup> in income per person while the Detroit's PMSA placed 36<sup>th</sup>. The Jackson area income per person, the lowest among Michigan's MSAs, equaled 84 percent of the statewide average. (See Exhibit 10.)

**Exhibit 10**  
**Michigan's Income Per Person**  
**Varied Widely Across Metro Areas in 2000**



<sup>3</sup> Over time, MSA definitions have changed. To allow for comparability across time, the MSA figures reported by BEA, and used in this report, use the current MSA definitions. All incomes as percent of U.S. and Michigan are based on May 6, 2002, data.

Since 1982, the Ann Arbor MSA and Detroit PMSA have reported the highest and second highest Michigan MSA income per person, respectively each year. Each year since 1990 the Jackson MSA has reported the lowest income per person among Michigan's nine MSAs. Among the nine MSAs, Flint's ranking has varied the most. In the early 1990s, Flint ranked 7<sup>th</sup>. However, with sharp increases in income per person in 1993, Flint moved to the 3<sup>rd</sup> highest income per person. Conversely, with sharp income declines in the late 1990s, Flint again moved to 7<sup>th</sup> and in 1999, Flint's income per person fell to 8<sup>th</sup>.

In real (inflation adjusted) terms, the gap between the highest income and lowest real income per person MSAs widened over the expansion between 1991 and 2000. While equaling \$6,400 in 1991, the real income per person gap widened by \$3,500 to \$9,900 by 2000. This is the result of faster growth in the state's highest income per person MSAs compared with the state's lowest income per person MSAs.

### **1991-2000 Expansion Period**

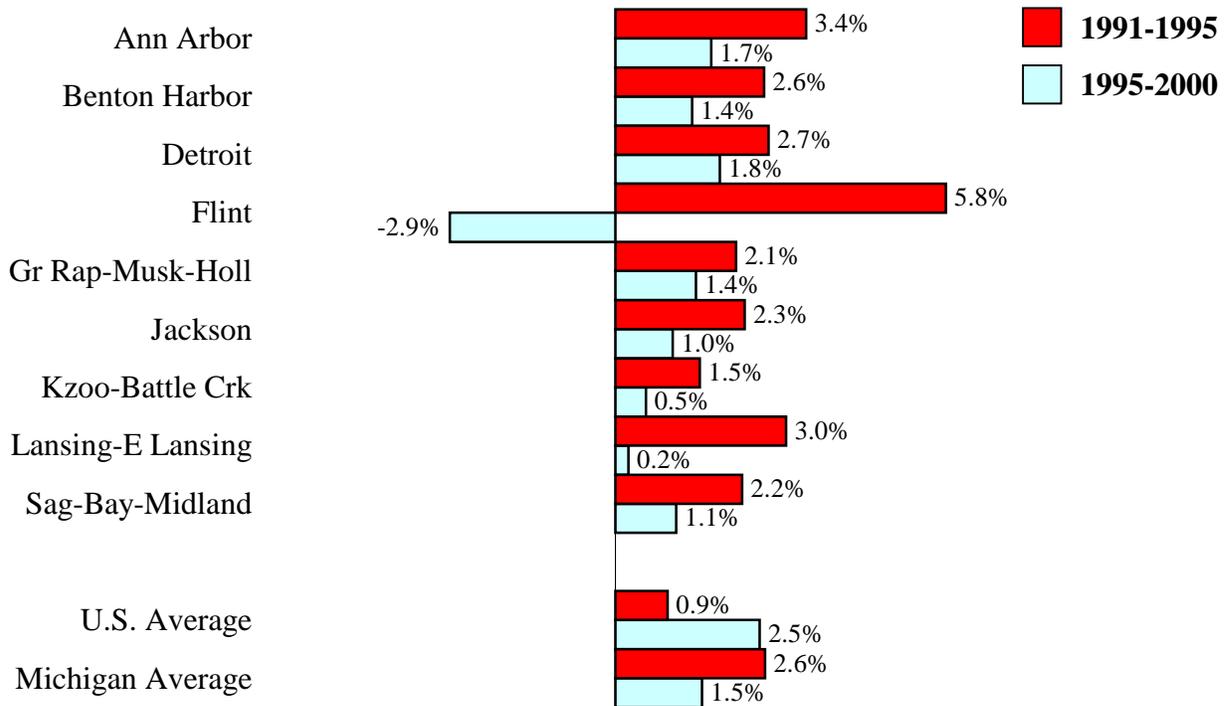
In the just ended recovery, Detroit and Ann Arbor MSA real per person income growth of over two percent outpaced state growth. The Flint MSA recorded the slowest real income per person growth over this period with 0.9 percent annual growth, slightly less than half the state's growth rate. (See Exhibit 12 on page 15.)

In the 1991 to 2000 upturn, the Ann Arbor MSA and Detroit PMSA with the highest incomes per person recorded the fastest real income per person gains among the nine MSAs. Conversely, Flint with the sixth highest 1991 income per person recorded the slowest real income per person gain.

It is helpful to subdivide the expansion period 1991 through 2000 into two periods: 1991 to 1995 and 1995 to 2000. Over the first period, Michigan real income per person outpaced national growth substantially. Between 1991 and 1995, real income per person growth in all nine Michigan MSAs outpaced national growth. By far, the Flint MSA reported the fastest growth over this time period, averaging 5.8 percent real income per person growth. The Ann Arbor MSA reported the second fastest growth over this period with 3.4 percent growth. (See Exhibit 11 on the next page.)

However, after 1995, Michigan real income per person growth slowed sharply. Between 1995 and 2000, Michigan real income per person grew at a 1.5 percent rate, compared with a 2.5 percent rate nationally. Flint MSA which had substantially outpaced other MSAs in real income per person growth over the first half reported the only decline between 1995 and 2000 with a decline that averaged 2.9 percent per year. The Detroit PMSA reported the fastest growth over this second period with 1.8 percent annualized growth. The Ann Arbor MSA and Detroit PMSA were the only MSAs to report real income per person growth exceeding state growth in both halves of the expansion.

**Exhibit 11**  
**Metro Area Real Income Per Person Growth Comparison**  
**1991-2000 Expansion**



Data for 2001 MSA personal income will be available in May 2003.

**1989-1991 Recession**

In the 1989-1991 recession period, Michigan real income per person declined at a slower rate than in the prior severe recession period 1979-1982. The Flint MSA saw the greatest improvement with a real income per person decline 3.9 percentage points less than in the 1979-1982 recession experience. The Saginaw-Bay-Midland MSA also saw a substantially smaller decline than in the prior recession with real income per person declining 3.2 percentage points less per year than in the 1979-82 experience. The Ann Arbor MSA saw the smallest improvement with real income per person declining 0.3 of a percentage point less per year.

The Ann Arbor MSA, which had the highest income per person both before and after the 1989-1991 recession recorded the largest percentage real income per person decline among Michigan's nine MSAs. Similarly, the Detroit PMSA, with the second highest income per person, recorded the second largest real income decline over this period. On the other hand, the Flint MSA, which had the third lowest real income per person in 1989 recorded the smallest real income per person decline with only a 0.1 percent rate decline over this period.

**Exhibit 12**  
**Real Income Per Person Income Growth Across Michigan's Metro Areas**

Metro Area	Recession 1979 to 1982		Expansion 1982 to 1989		Recession 1989 to 1991		Expansion 1991 to 2000		Recession 2000 to 2001	
	<u>Change</u>	<u>% ann</u>								
Michigan Average	(2,373)	-3.6%	5,456	3.4%	(767)	-1.5%	5,000	2.0%	(516)	-1.7%
U.S. Average	(675)	-1.0%	4,686	2.8%	(485)	-0.9%	4,590	1.8%	(156)	-0.5%
Ann Arbor	(1,930)	-2.7%	6,759	3.8%	(1,423)	-2.4%	6,793	2.4%	n/a	n/a
Benton Harbor	(1,355)	-2.3%	4,137	2.9%	(386)	-0.9%	4,138	1.9%	n/a	n/a
Detroit	(2,896)	-3.9%	6,650	3.8%	(1,210)	-2.1%	6,139	2.2%	n/a	n/a
Flint	(2,760)	-4.0%	3,032	1.9%	(41)	-0.1%	1,956	0.9%	n/a	n/a
Gr Rap-Musk-Holl	(1,819)	-2.9%	5,180	3.4%	(167)	-0.3%	4,125	1.7%	n/a	n/a
Jackson	(2,471)	-4.0%	3,732	2.6%	(934)	-2.1%	3,285	1.6%	n/a	n/a
Kzoo-Battle Crk	(1,604)	-2.6%	5,049	3.3%	(156)	-0.3%	2,200	1.0%	n/a	n/a
Lansing-E Lansing	(1,744)	-2.7%	4,481	2.9%	(235)	-0.5%	3,374	1.5%	n/a	n/a
Sag-Bay-Midland	(2,470)	-3.8%	4,351	2.9%	(299)	-0.6%	3,630	1.6%	n/a	n/a

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Source: Bureau of Economic Analysis, U.S. Department of Commerce, May 2002 and September 2002.  
Real personal income uses 2001 as the base year.