

APPENDIX B

Economic Base of Michigan

These ten exhibits display key statistics pertaining to Michigan's economic base—wage and salary employment, unemployment, nonfarm employment, consumer price index, per capita income, personal income, motor-vehicle sales, motor-vehicle production, agricultural income, and tourism spending—with comparisons to the nation as a whole; the latest comparable data are used. Sources are the U.S. Bureau of Labor Statistics; Michigan Department of Career Development; Michigan Employment Service Agency; *Automotive News Market Data Book*, Crain Communications, Inc.; Michigan Senate Fiscal Agency; U.S. Department of Commerce, U.S. Bureau of Economic Analysis; and Michigan State University Department of Park, Tourism, and Recreational Resources.

EXHIBIT I. Wage and Salary Employment, Percentage Change from Previous Year, United States and Michigan, 1980–2001

Because of Michigan's reliance on the motor-vehicle industry, the state economy traditionally has been more volatile than the national economy. This exhibit shows that during the upswing of the 1980s, wage and salary job growth in Michigan exceeded that of the nation as a whole, but during the recession that followed (in the early 1990s), so did the state's job declines. Since 1996 employment growth in Michigan has trailed national employment growth, in part because Michigan did not benefit as much from the technology boom as the nation as a whole.

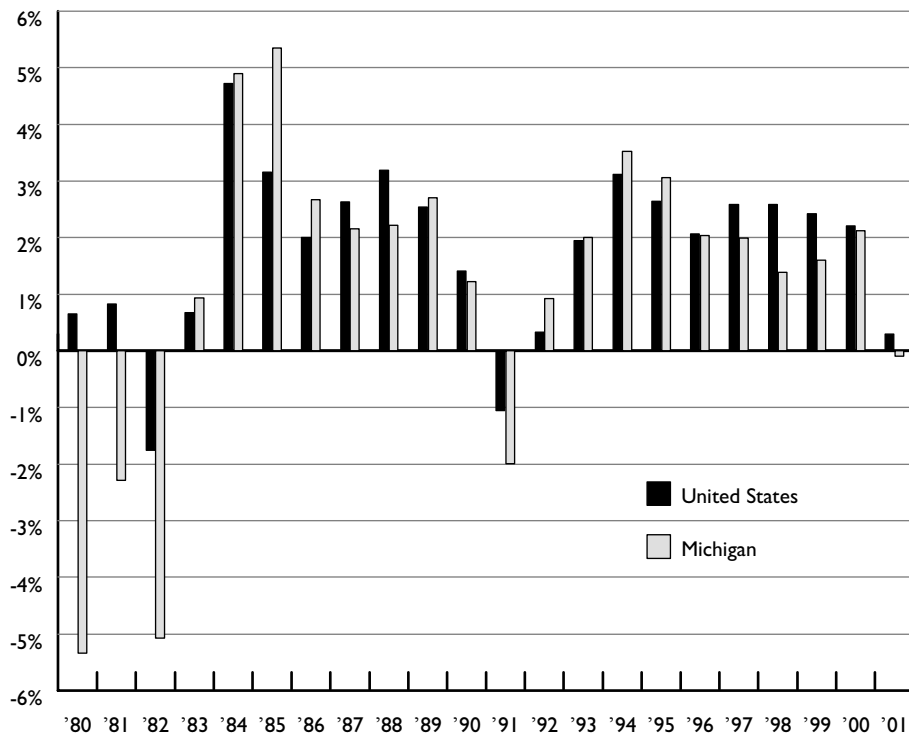


EXHIBIT 2. Unemployment Rate, United States and Michigan, 1970–2001

The unemployment rate measures the percentage of the total work force actively looking for work. During economic downturns, the rate tends to underestimate the number of unemployed because people become discouraged and stop looking. Michigan's reliance on the heavy-manufacturing sector is a primary reason that except for a dramatic reversal from 1994 to 2001, the unemployment rate in Michigan historically has been higher than the U.S. rate.

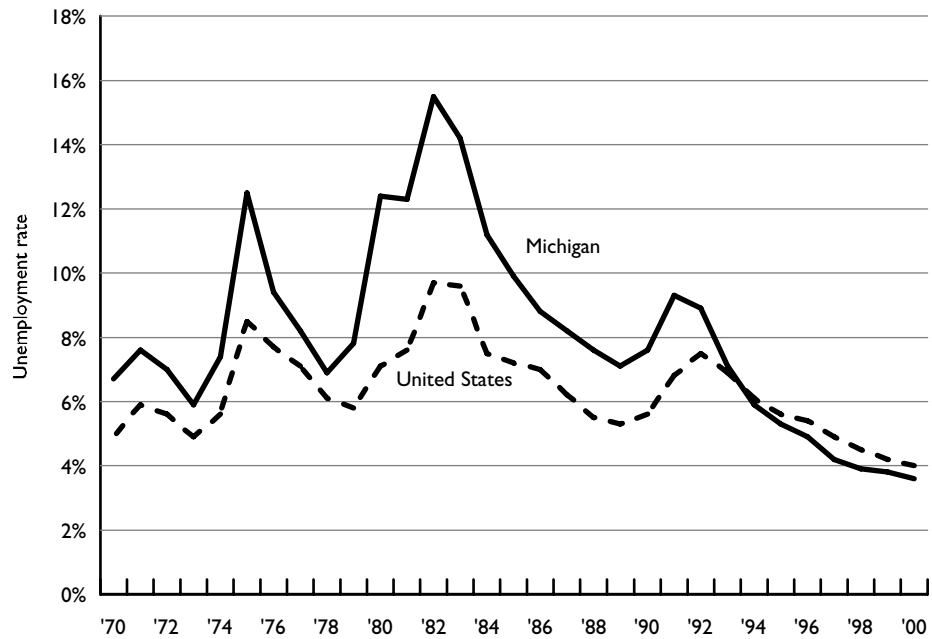


EXHIBIT 3. Nonfarm Employment Distribution, by Industry, United States and Michigan, 2001

The distribution of employment by industry in Michigan is similar to that of the United States with one notable exception: Michigan has a larger share of manufacturing than the rest of the country, due in large part to the concentration of the motor-vehicle industry in the state. In 2000, motor-vehicle jobs accounted for 6.1 percent of Michigan wage and salary employment and about 20 percent of all manufacturing jobs. (The percentages would be higher if related jobs in such other industries as metalworking and rubber and plastic were included.)

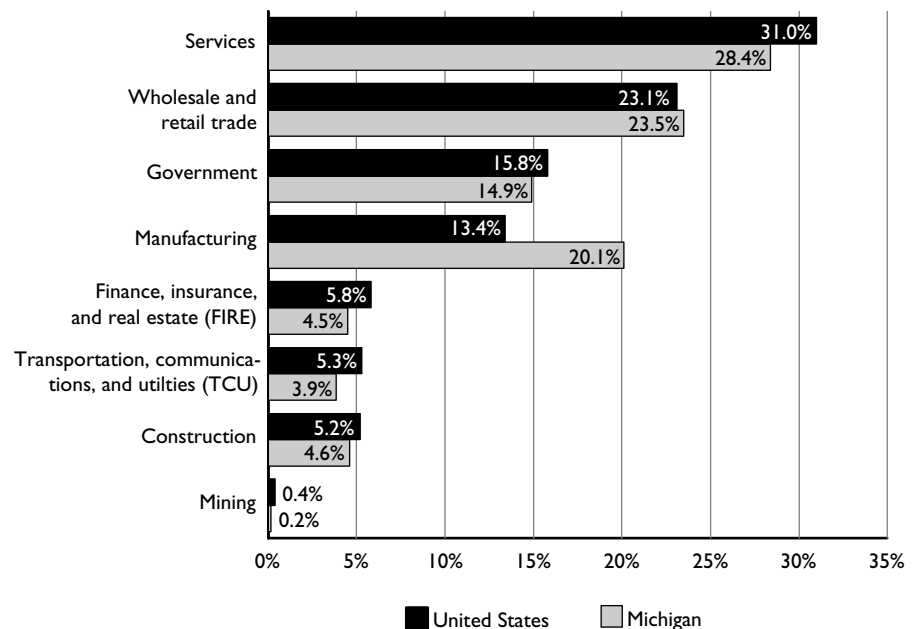


EXHIBIT 4. Consumer Price Index, United States and Michigan, 2000

A consumer price index is an indicator of cost-of-living changes. The Detroit–Ann Arbor index is used here because it is the only one available for Michigan, and it approximates the price level for the state as a whole. The base period against which price increases are measured is 1982–84 for all categories except recreation and education/communications, which are measured from 1997. As may be seen in the “all items” figures, prices in Michigan generally have not risen quite as much they have nationwide. The exceptions are (1) transportation, in which Michigan prices have increased 62.5 percent since the base period, while U.S. prices are up 53.3 percent and (2) the relatively new categories of recreation and education/communications. In 2001 the U.S. CPI increased 2.0 percent and the Michigan (Detroit–Ann Arbor) CPI increased 2.7 percent.

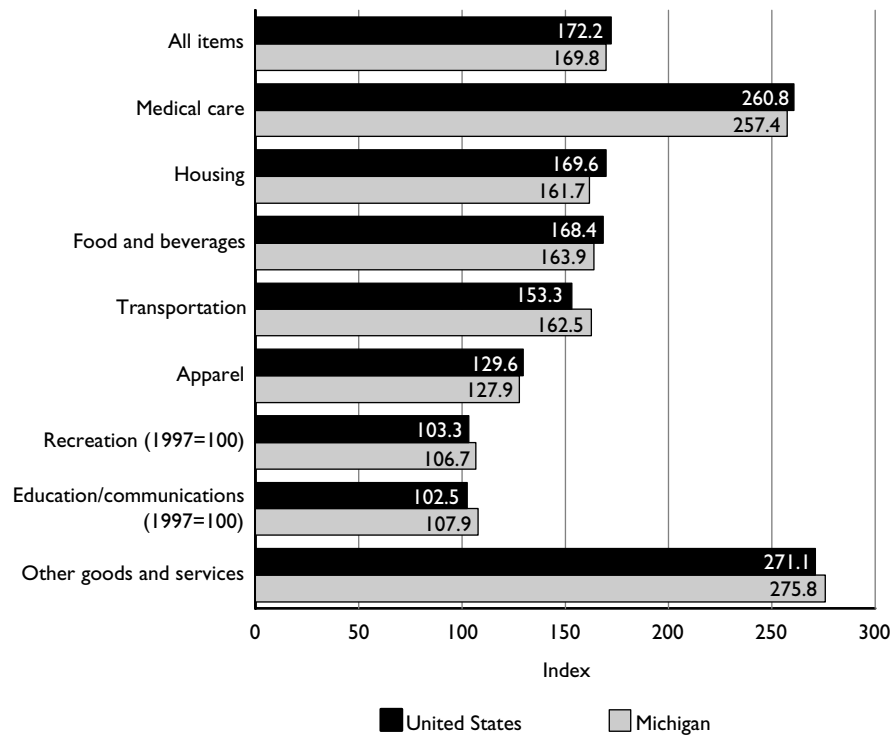


EXHIBIT 5. Michigan per Capita Income as Percentage of U.S. per Capita Income, 1950–2000

Michigan’s per capita income exceeded that of the United States during the 1950s, 1960s, and 1970s. However, in the 1980s, when the automobile industry began experiencing serious problems and engaged in extensive layoffs and cost-cutting measures, the state’s per capita income fell below the national average. The initial dip occurred in 1981 (although the falloff had begun in 1977) and since then, Michigan’s per capita income has seen-sawed around the national rate, exceeding it in only seven of the last 20 years.

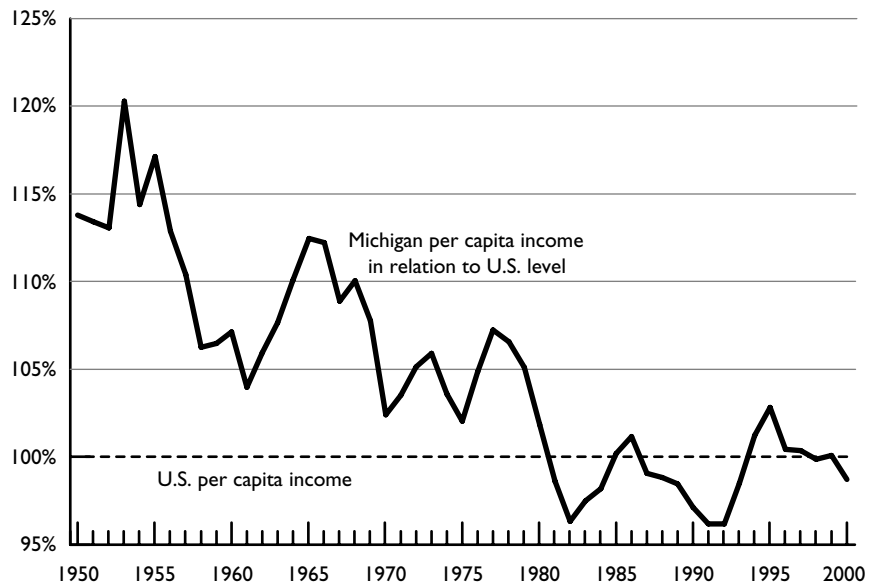


EXHIBIT 6. U.S. and Michigan Personal Income, Total and per Capita, 1976–2000

Year	Michigan		Michigan as % of U.S.	Michigan		U.S.		Real Michigan		Real U.S.	
	Michigan per Capita	U.S. per Capita		Personal Income (millions)	Percentage Change	Personal Income (millions)	Percentage Change	Personal Income (millions)	Percentage Change	Personal Income (millions)	Percentage Change
1976	\$7,084	\$6,756	104.9%	\$64,588	12.9%	\$1,469,752	10.8%	\$64,588	7.2%	\$1,469,752	4.8%
1977	7,957	7,421	107.2	72,863	12.8	1,630,901	11.0	68,182	5.6	1,531,325	4.2
1978	8,834	8,291	106.5	81,287	11.6	1,841,340	12.9	70,706	3.7	1,606,936	4.9
1979	9,701	9,230	105.1	89,727	10.4	2,072,839	12.6	69,246	-2.1	1,624,580	1.1
1980	10,369	10,183	101.8	95,967	7.0	2,313,921	11.6	63,903	-7.7	1,597,841	-1.6
1981	11,125	11,280	98.6	102,455	6.8	2,588,335	11.9	62,440	-2.3	1,620,201	1.4
1982	11,462	11,901	96.3	104,477	2.0	2,759,954	6.6	61,178	-2.0	1,627,372	0.4
1983	12,243	12,554	97.5	110,771	6.0	2,935,040	6.3	63,044	3.0	1,676,745	3.0
1984	13,576	13,824	98.2	122,857	10.9	3,260,064	11.1	67,619	7.3	1,785,348	6.5
1985	14,734	14,705	100.2	133,728	8.8	3,498,662	7.3	71,121	5.2	1,850,129	3.6
1986	15,573	15,397	101.1	142,146	6.3	3,677,359	5.1	74,551	4.8	1,909,140	3.2
1987	16,130	16,284	99.1	148,191	4.3	3,945,515	7.3	75,356	1.1	1,976,231	3.5
1988	17,198	17,403	98.8	158,529	7.0	4,255,000	7.8	77,558	2.9	2,046,572	3.6
1989	18,276	18,566	98.4	169,163	6.7	4,582,429	7.7	78,565	1.3	2,102,744	2.7
1990	19,022	19,584	97.1	177,103	4.7	4,885,525	6.6	78,223	-0.4	2,126,904	1.1
1991	19,311	20,039	96.4	181,495	2.5	5,065,416	3.7	77,452	-1.0	2,116,169	-0.5
1992	20,263	20,979	96.6	192,038	5.8	5,376,662	6.1	80,263	3.6	2,180,556	3.0
1993	21,366	21,557	99.1	203,828	6.1	5,598,446	4.1	82,933	3.3	2,204,509	1.1
1994	22,829	22,358	102.1	219,121	7.5	5,878,362	5.0	86,431	4.2	2,256,942	2.4
1995	23,931	23,272	102.8	231,594	5.7	6,192,235	5.3	88,523	2.4	2,311,930	2.4
1996	24,394	24,286	100.4	238,095	2.8	6,528,103	5.4	88,681	0.2	2,367,425	2.4
1997	25,505	25,427	100.3	250,216	5.1	6,928,545	6.1	90,929	2.5	2,456,288	3.8
1998	26,870	26,909	99.9	264,645	5.8	7,418,754	7.1	94,067	3.5	2,589,737	5.4
1999	27,886	27,859	100.1	275,963	4.3	7,769,648	4.7	95,636	1.7	2,653,619	2.5
2000	29,071	29,451	98.7	289,390	4.9	8,312,312	7.0	96,804	1.2	2,746,635	3.5

This exhibit includes several measures of personal income: total, real (adjusted for inflation), and per capita.

In 2000 total Michigan personal income (MPI) was \$289.4 billion, about 3.5 percent of total U.S. personal income. Michigan personal income growth historically lags behind national growth: From 1995 to 2000, MPI increased only 25.0 percent while the national rate rose 34.2 percent. The picture is similar for the last 20 years: From 1980 to 2000, MPI increased 201.6 percent compared with national growth of 259.2; the average annual growth rates were 5.7 percent and 6.6 percent, respectively.

Adjusted for inflation, the real 20-year average annual growth rates for Michigan and the nation were 2.0 percent and 2.7 percent, respectively.

One reason that Michigan historically has lagged behind the nation is that the Midwest is growing more slowly than the South and West. More recently, the state did not benefit as much as other states from the explosive growth of the technology sector in the 1990s.

EXHIBIT 7. U.S. Light Motor-Vehicle Sales, 1970–2001

Sales of light motor vehicles (vehicles weighing less than 10,000 pounds—includes cars, SUVs, vans, and some pickups) historically have been volatile, as may be seen in the steep peaks and valleys shown here. After the roller coaster ride of the 1970s, light motor-vehicle sales increased consistently in the 1980s but, although the increase parallels income and population growth, the entire increase was in light trucks. The move from passenger cars to trucks accelerated in the 1990s. Passenger car sales averaged almost 1.3 million units less annually than in the 1980s, and light-truck sales averaged about 2.3 million units more. In 2001 total sales surpassed 17 million, an all-time high, but over half (50.5 percent) of the units sold were light trucks; many were minivans and SUVs that replaced station wagons and large sedans for family transportation.

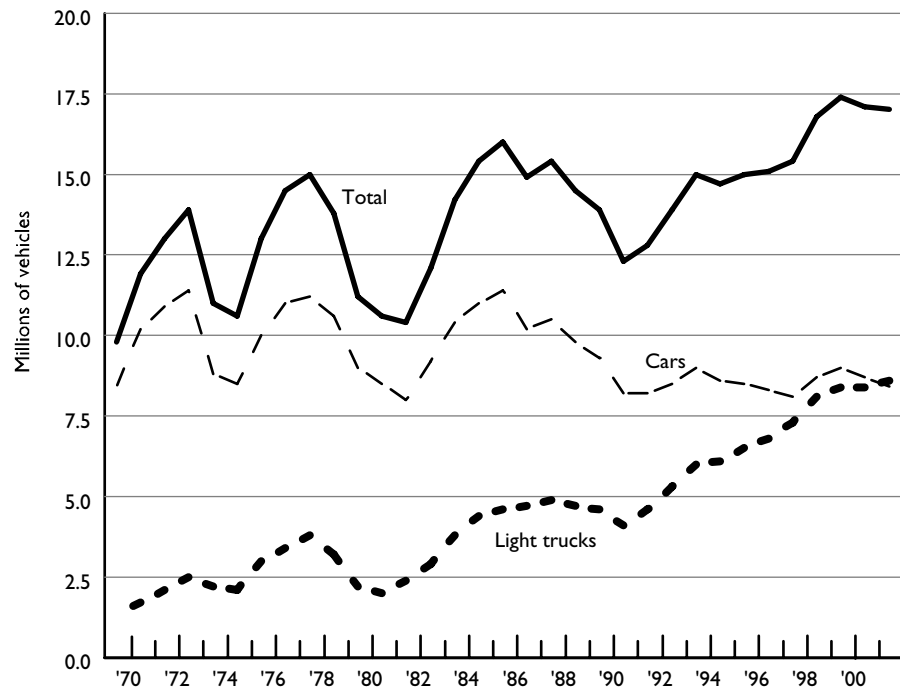


EXHIBIT 8. Michigan Motor-Vehicle Production as a Percentage of U.S. Production, 1970–2001

Michigan's share of U.S. motor-vehicle production has declined over the past 30 years. The decline is due to more foreign competition, which has caused plant closures in Michigan, and the movement of some motor-vehicle production to lower-cost states and nations. Another factor is that while Michigan produces fully a third of all cars built in the country, it produces only 17.5 percent of the light trucks. In number of units, Michigan motor-vehicle production peaked at nearly 4.3 million units in 1973. In 2001 Michigan production was about 3.1 million units, almost 28.0 percent below the 1973 level.

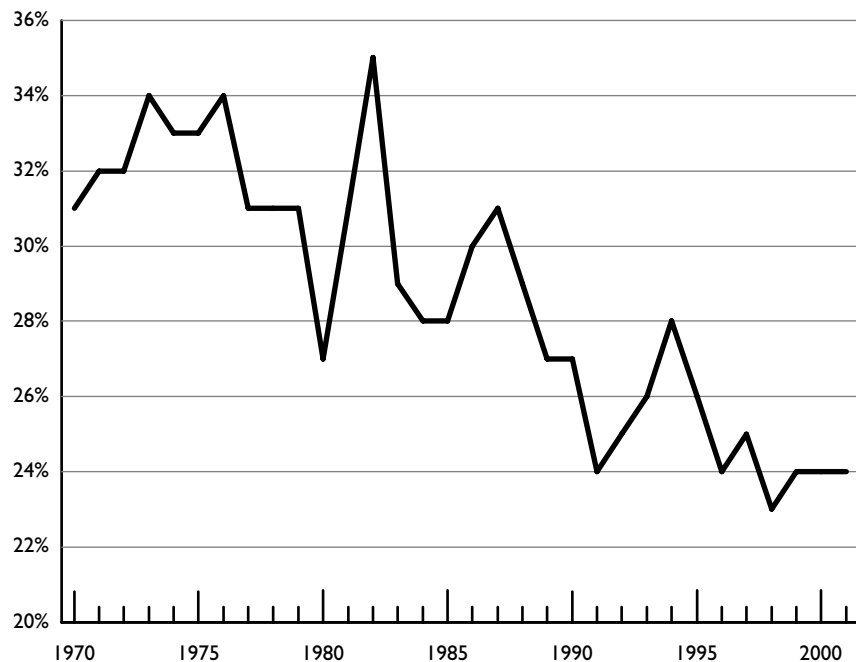


EXHIBIT 9. Farm Income as a Percentage of Personal Income, Michigan and Selected States, 2000

Agriculture is an important Michigan industry but relatively small in terms of income generated, and it is less important than in many other states: Nationwide, farm income in 2000 was 0.6 percent of total personal income, but in Michigan it was only 0.2 percent. Michigan ranks below other states in the Great Lakes region in terms of agriculture's contribution to the economy.

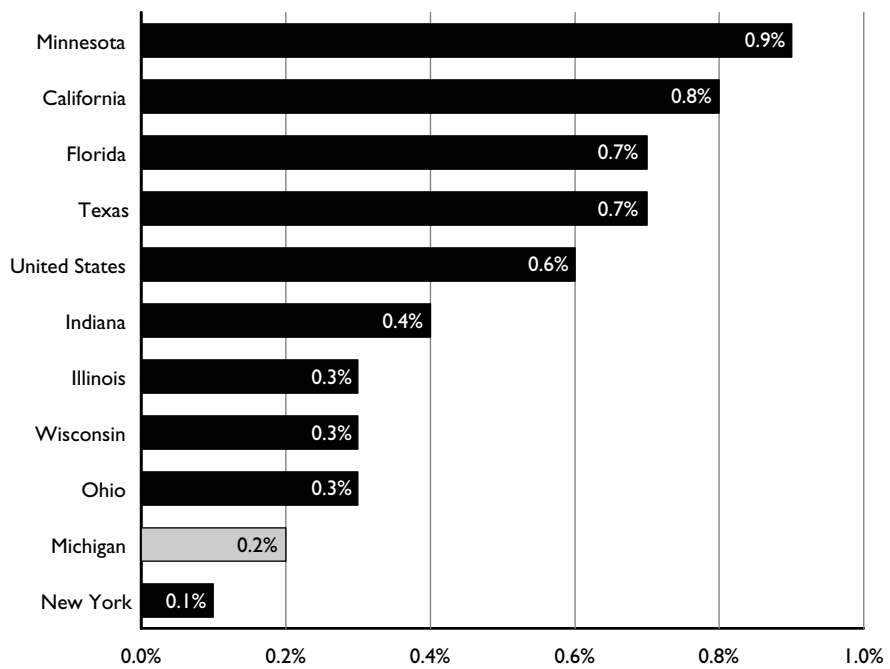


EXHIBIT 10. Estimated Tourism Spending, Michigan, 1996–2000 (\$ billions)

Tourism is a major industry in Michigan, generating nearly 164,000 direct jobs and about \$2.2 billion in tax revenue (1999 estimates). When spillover or multiplier effects is considered, the industry is responsible for about 215,000 jobs.

Year	Spending on Trips of 100 Miles or More	Tourism Payroll	Direct Tourist Jobs	State-Local Tax Receipts
1996	\$9.6	\$2.4	\$143,000	\$1.5
1997	10.0	3.0	157,000	1.8
1998	10.6	3.2	157,000	2.0
1999	11.5	3.5	163,500	2.2
2000 (preliminary)	12.5	NA	NA	NA

NA = Not available.