

Introduction

Wisconsin's economy has grown consistently in recent years, paralleling the growth experienced by the U.S. overall. However, the state trails the U.S. in several key measures, including gross domestic product (GDP) per capita and personal income per capita. Compared to its neighbors, Wisconsin ranks near the middle of the pack in these same metrics.

Manufacturing, real estate, and government comprise the largest share of Wisconsin's economy. Manufacturing's share of the economy has declined over the past two decades, though it remains Wisconsin's largest industry and far outstrips the national average. Today, finance and insurance, professional and business services, and education and health services are some of Wisconsin's fastest-growing industries.

While many of Wisconsin's indicators are positive, there are also warning signs that policymakers would do well to heed. For example, Wisconsin took unusually long to recover from the Great Recession, only reaching its prerecession employment level halfway through 2015. Since 2005, moreover, the state has seen net outmigration as some Wisconsinites have found better opportunities outside the state. The population is also aging more rapidly than it is in neighboring states, births and K-12 enrollment have been on the decline, and college-educated individuals are leaving Wisconsin.

To provide context for future chapters, the following pages present an overview of the Badger State's economy, detailing the state's economic history and discussing what's ahead for the state's economy.

State Gross Domestic Product (GDP)

Wisconsin had the 20th largest economy in the United States in 2017, based on total gross domestic product (GDP).7 The state's overall economic output is less than it is in all neighboring states except lowa (29th), though it ranks closely behind Indiana (16th) and Minnesota (17th).

After adjusting for population, Wisconsin's ranking drops slightly. In 2017, Wisconsin's GDP per capita ranked 25th nationally, trailing Illinois (12th), Minnesota (14th), and Iowa (17th) (Figure 1a).8

Bureau of Economic Analysis. Regional Economic Accounts. Gross Domestic Product (GDP) by State. "Gross Domestic Product (GDP) by State (millions of current dollars)."

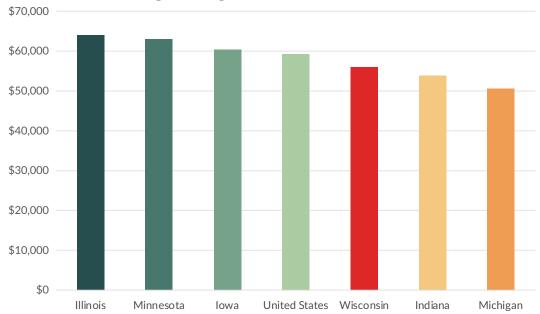
Figure 1b shows real GDP per capita for Wisconsin, its neighboring states, and the nation between 1997 and 2017. Wisconsin's real GDP per capita has consistently trailed Illinois and Minnesota over the last two decades. While Wisconsin has remained ahead of Michigan since 2003, the state's GDP per capita fell behind Iowa in 2004, and the gap between the two states has widened in recent years.

Compared to the national GDP per capita, Wisconsin's growth rate lagged the average in the mid-2000s but has generally paralleled the U.S. since 2009. However, a roughly \$3,000 gap persists between Wisconsin's GDP per capita and the national GDP per capita.

Figure 1c illustrates the annual percentage changes in real GDP over time for both Wisconsin and the U.S.

FIGURE 1a.

State Gross Domestic Product Per Capita,
Wisconsin and Neighboring States, 2017



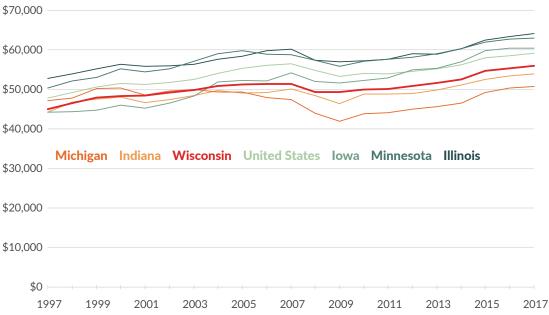
 $Source: Bureau\ of\ Economic\ Analysis,\ Regional\ Economic\ Accounts,\ Gross\ Domestic\ Product\ (GDP)\ by\ State.$

Dibid. U.S. Census Bureau, Population Division, "Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico" (Series Id: NST-EST2017-01).

Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by State, "Gross Domestic Product (GDP) by State (millions of current dollars)."

FIGURE 1b.

State Gross Domestic Product Per Capita, 1997-2017, Wisconsin, Neighboring States (in 2017 dollars)



Note: Dollar amounts were adjusted for inflation and expressed in 2017 dollars prior to calculating percentage changes using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics.

Source: Bureau of Economic Analysis, Regional Economic Accounts, *Gross Domestic Product (GDP) by State*; Bureau of Labor Statistics, Consumer Price Indexes (All Urban Consumers).

FIGURE 1c.

Annual Percent Change in Real GDP, Wisconsin and the U.S., 1998-2017



Note: Dollar amounts were adjusted for inflation and expressed in 2017 dollars prior to calculating percentage changes using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics.

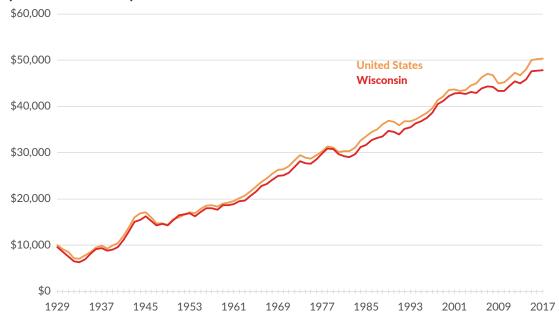
Source: Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by State; Bureau of Labor Statistics, Consumer Price Indexes (All Urban Consumers).

Personal Income

In 1929, the average inflation-adjusted personal income of a Wisconsin resident was \$9,590, 4 percent below the U.S. average of \$10,005.\(^{11}\) Since then, Wisconsin has closely matched federal growth rates, although recently the state has begun to lose ground. As of 2017, Wisconsin's personal income per capita was \$47,850, trailing the national average by \$2,542, or 5 percent. Figure 1d shows inflation-adjusted personal income levels of Wisconsin and the U.S. from 1929 to present, and Figure 1e shows Wisconsin's and neighboring states' personal income per capita as a percentage of United States income.

While personal income per capita across the entire region has remained within about 15 percent of the U.S. in recent years, that has not always been the case. Compared to its peers, Wisconsin's personal income per capita as a percentage of the U.S. has remained quite stable over time, while neighboring states have experienced large swings (Figure 1e).

Personal Income Per Capita of Wisconsin and the U.S., 1929-2017 (in 2017 dollars)



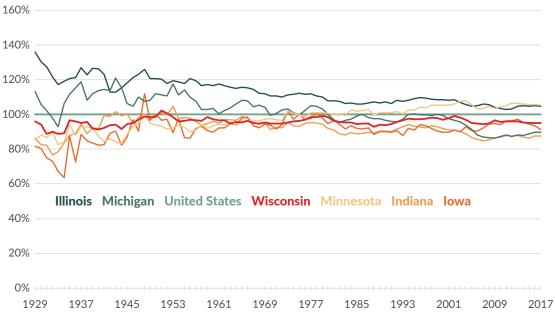
Note: Dollar amounts were adjusted for inflation and expressed in 2017 dollars prior to calculating percentage changes using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics.

Source: Bureau of Economic Analysis, Regional Economic Accounts, Personal Income Summary: Personal Income, Population, Per Capita Personal Income (Table SA1); Bureau of Labor Statistics, Consumer Price Indexes (All Urban Consumers).

Bureau of Economic Analysis, Regional Economic Accounts, Personal Income Summary: Personal Income, Population, Per Capita Personal Income (Table SA1).

FIGURE 1e.

Personal Income Per Capita of Wisconsin and Neighboring States as a Percentage of U.S. Income, 1929-2017



Source: Bureau of Economic Analysis, Regional Economic Accounts, Personal Income Summary: Personal Income, Population, Per Capita Personal Income (Table SA1).

Unsurprisingly, metropolitan areas perform better economically than nonmetropolitan areas. In 2006, the gap between metro and non-metro areas within Wisconsin peaked at \$9,232, and in 2014 the gap declined to its smallest measure on record, \$6,312 (Figure 1f). 12

Many of these economic measures vary across Wisconsin's regions, or Metropolitan Statistical Areas (MSAs).¹³ For example, in the Madison and Milwaukee MSAs, GDP per capita is higher than the national average (Figure 1g). On the other hand, the Racine MSA has the lowest GDP per capita of areas we examined, measuring nearly \$30,000 below the Madison region.¹⁴

The comparative differences among Wisconsin's metropolitan areas have evolved over time (Figure 1h). All of Wisconsin's MSAs saw GDP per capita decline following the recession, but their degree of recovery since then has been varied. ¹⁵ For example, in the years following the recession, the Madison MSA has seen steady growth, while the Racine MSA has declined.

Bureau of Economic Analysis, Regional Economic Accounts, Local area Personal Income and Employment, Personal Income Summary: Personal Income, Population, and Personal Income Per capita (Table CA1); Bureau of Labor Statistics, Consumer Price Indexes (All Urban Consumers).

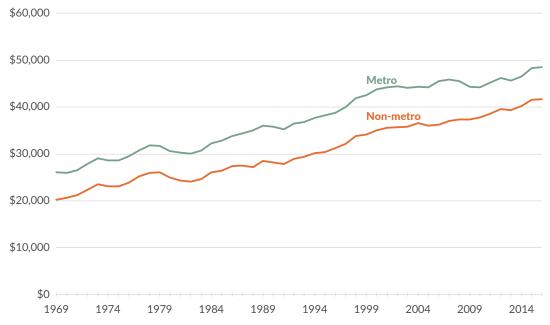
¹³ Bureau of Economic Analysis. Regional Economic Accounts. Gross Domestic Product (GDP) by Metropolitan Area.

¹⁴ Ibid.

¹⁵ Ibid.

FIGURE 1f.

Personal Income Per Capita, Wisconsin, 1969-2016 (in 2016 dollars)

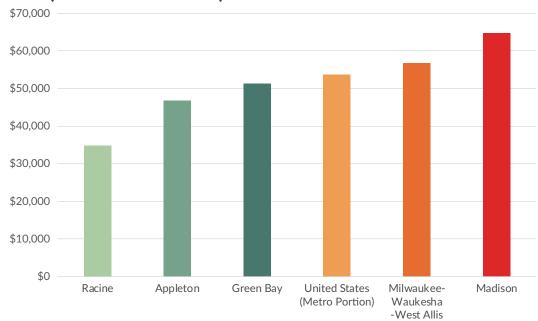


Note: Dollar amounts were adjusted for inflation and expressed in 2016 dollars prior to calculating percentage changes using the Consumer Price Index for All Urban Consumers (CPI-U) from the Bureau of Labor Statistics.

Source: Bureau of Economic Analysis, Regional Economic Accounts, Local area Personal Income and Employment, Personal Income Summary: Personal Income, Population, and Personal Income Per capita (Table CA1); Bureau of Labor Statistics, Consumer Price Indexes (All

FIGURE 1g.

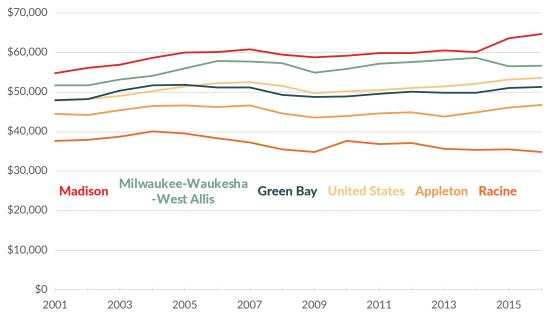
Wisconsin Gross Domestic Product by Metropolitan Statistical Area, 2016 (chained 2009 dollars)



Source: Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by Metropolitan Area.

FIGURE 1h.

Wisconsin Gross Domestic Product by Metropolitan Statistical Area, 2001-2016 (chained 2009 dollars)



Source: Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by Metropolitan Area.

Major Industries

In 2017, Wisconsin's five largest industries were manufacturing (18.6 percent), real estate and rental leasing (12.1 percent), government and government enterprises¹⁶ (10.9 percent), professional and business services (9.6 percent), and healthcare and social assistance (8.7 percent).¹⁷

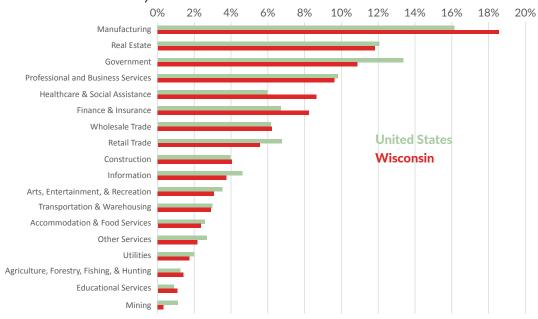
Wisconsin's industry mix differs from that of the U.S. at large. Most notably, the manufacturing sector comprises a larger share of Wisconsin's economy (18.6 percent) than it does the nation as a whole (16.1 percent). The state also has a noticeably larger share of the healthcare and social assistance as well as the finance and insurance industries. On the other hand, government and government enterprises and retail trade make up a smaller share of Wisconsin's economy than of the U.S. economy.

Over the past two decades, several notable trends have occurred. From 1997 to 2017, the size of the manufacturing industry has decreased from just over 25 percent of the state's total GDP to 18.6 percent. Though still by far the largest sector in the state, its share of the economy has declined over the past decade while other sectors have grown. Finance and insurance and the professional and business sectors have experienced the most growth over those two decades.

¹⁶ The Bureau of Economic Analysis defines "government enterprises" as "government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain their own separate accounts."

¹⁷ Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by State.

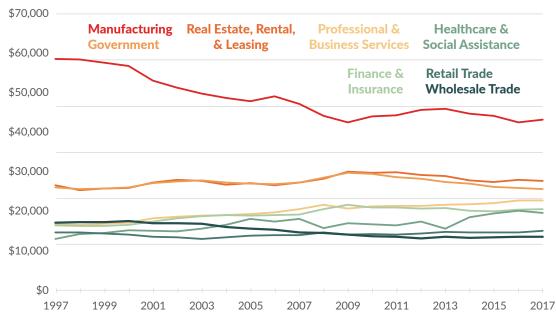
Percentage of Total State Gross Domestic Product by Industry, Wisconsin and U.S., 2017



Source: Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by State.

FIGURE 1j.

Percent of Total State Gross Domestic Product by Industry,
1997-2017

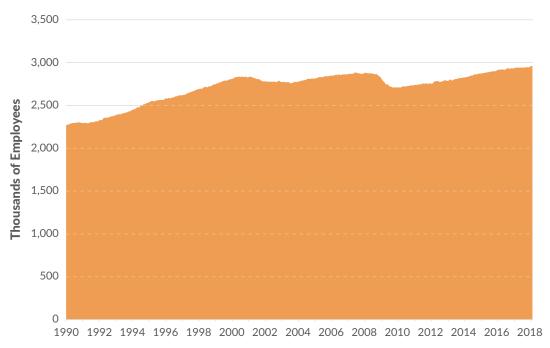


Source: Bureau of Economic Analysis, Regional Economic Accounts, Gross Domestic Product (GDP) by State.

Employment

Employment in Wisconsin has risen 30.7 percent since 1990 but only 5.4 percent since 2000.18 Wisconsin lost an estimated 177,000 jobs during the Great Recession, sustaining a peak unemployment rate of 9.2 percent, which was slightly lower than the national unemployment peak of 10 percent.¹⁹ In August 2018, Wisconsin's unemployment rate of 3.0 percent was among the lowest in the nation.²⁰

FIGURE 1k. **Total Nonfarm Employment, 1990-2018**



Source: U.S. Bureau of Labor Statistics, All Employees; Total Nonfarm in Wisconsin.

The manufacturing sector is the largest employer in Wisconsin, comprising 16 percent of total state nonfarm employment in 2017.²¹ The next largest sectors in terms of employment are education and health services at 15.3 percent, government (13.8 percent), professional and business services (11 percent), and retail trade (10.3 percent). Figure 1I shows the breakdown of nonfarm employment categories within the state, organized by broad sector categories provided by the Bureau of Labor Statistics.

Like the decrease in manufacturing as a share of total state GDP, manufacturing's share of employment has also been in steady decline (see Figure 1m). Employment in the education and health services sector, as well as in the professional and business services industry, has risen in recent years, while employment in other top industries has remained relatively flat.

U.S. Bureau of Labor Statistics (BLS), "All Employees: Total Nonfarm in Wisconsin, Thousands of Persons, Monthly, Seasonally Adjusted."

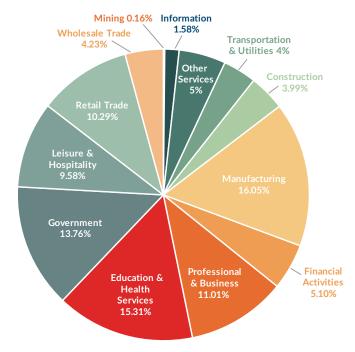
BLS, "Labor Force Statistics for Current Population, Unemployment Rate, (Series Id. LNS14000000)."

BLS, "Civilian labor force and unemployment by state and selected area, seasonally adjusted."

Bureau of Labor Statistics, State and Area Employment, Hours, and Earnings.

FIGURE 11.

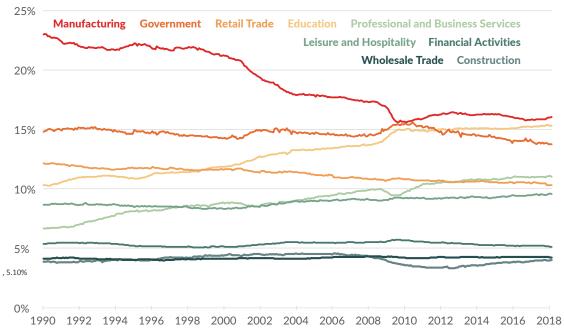
Percent of Total Nonfarm Employment by Industry, 2018



Source: Bureau of Labor Statistics, State and Area Employment, Hours, and Earnings.

FIGURE 1m.

Nonfarm Employment by Industry, 1990-2018



Source: Bureau of Labor Statistics, State and Area Employment, Hours, and Earnings.

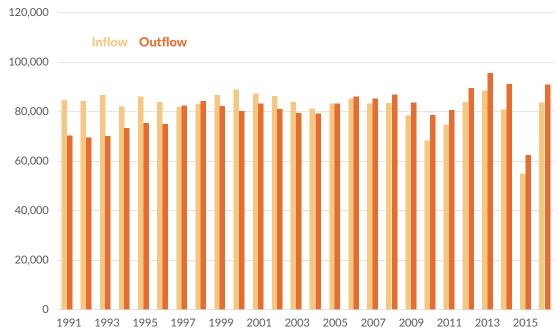
Migration Patterns

One way to measure migration among states is to look at the movement of individual federal income tax filers between states and abroad over time. The Internal Revenue Service's State Migration Data shows the inbound and outbound number of federal tax exemptions, which serves as our measure of "people."

From 1991 until 2004, migration into Wisconsin exceeded outbound migration all years except 1997 and 1998, for a total gain of 100,827 people.²² However, outflows have exceeded inflows every year since 2005, resulting in a loss of 65,596 people.²³ From 2010 to 2016 alone, Wisconsin experienced a net outflow of 53,927 people. Figure 1n illustrates these migration trends over time.

In addition to the recent net outflow of people from Wisconsin, there is a rising concern of an aging population. Compared to nearby states, Wisconsin has the second lowest percentage of residents under age 19 and the lowest percentage of residents under age 29. Wisconsin is also among the states with the highest percentages of residents age 60 and older (Figure 1o).24

FIGURE 1n. Migration In and Out of Wisconsin, 1991-2016



Source: Internal Revenue Department: Statistics of Income Tax Stats - Migration Data, "U.S. Population Migration Data."

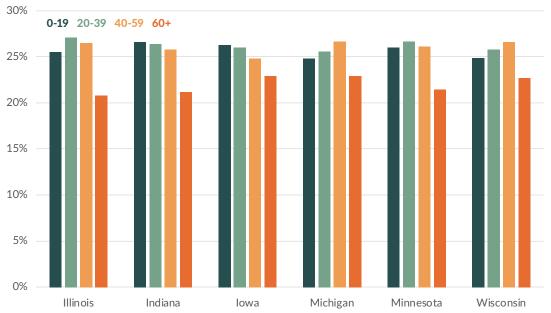
Internal Revenue Department: Statistics of Income Tax Stats - Migration Data, "U.S. Population Migration Data." It should be noted that there are discrepancies between the migration data from the Internal Revenue Service and from the U.S. Census Bureau.

²³

U.S. Census Bureau, Population Division, "Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States," https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

FIGURE 10.

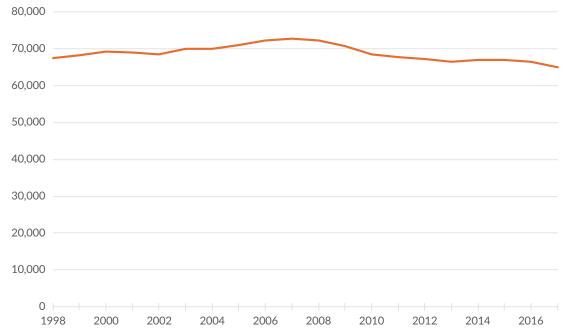
Age Groups as a Percentage of Total Population,
Wisconsin and Neighboring States, 2016



Source: U.S. Census Bureau, Population Division, "Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States."

FIGURE 1p.

Number of Live Births in Wisconsin, 1998-2017



Source: Centers for Disease Control and Prevention, "National Vital Statistics Reports," Final Data for 1998-2017, $https://www.cdc.gov/nchs/data/nvsr/nvsr48/nvs48_03.pdf.$ In addition to an aging population, Wisconsin is experiencing other demographic challenges. As pictured in Figure 1p, births in Wisconsin have been declining in recent years, falling to 64,975 in 2017 from a peak of 72,784 in 2007. Likewise, K-12 enrollment in the Badger State has fallen from 874,098 in the 2005-2006 school year to 860,138 in the 2017-2018 school year, a decline of 1.6 percent.²⁵ A third issue is that of "brain drain": One estimate shows that between 2008 and 2012, Wisconsin lost an average of 14,000 college graduates per year, primarily between the ages of 21 and 29.26