

Ohio's Economy Ranks 7<sup>th</sup> Largest Among States

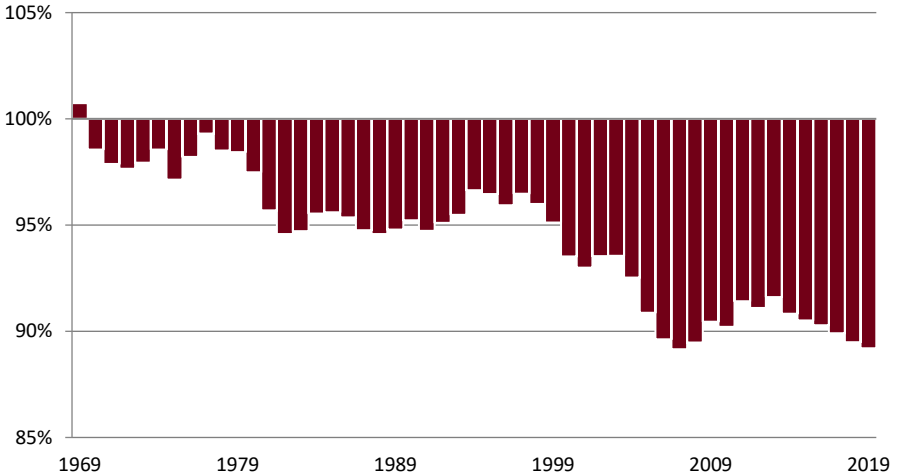
2019 Gross Domestic Product by State				
State	Total GDP (\$ in billions)		Per-Capita GDP	
	Amount	Rank	Amount	Rank
<b>Ohio</b>	<b>\$698.5</b>	<b>7</b>	<b>\$59,753</b>	<b>24</b>
Neighboring States				
Pennsylvania	\$813.5	6	\$63,546	20
Michigan	\$541.6	14	\$54,226	36
Indiana	\$377.1	19	\$56,015	33
Kentucky	\$214.7	28	\$48,050	44
West Virginia	\$78.2	41	\$43,629	49
Top Ranked State	\$3,137.5	California	\$89,028	New York
U.S.	\$21,427.7	--	\$65,281	--

Source: U.S. Bureau of Economic Analysis

- In 2019, Ohio's gross domestic product (GDP), the broadest measure of economic production, totaled \$698.5 billion, a 3.3% increase from 2018 total GDP of \$675.9 billion. Ohio's 2019 GDP was the 7<sup>th</sup> largest in the U.S., ranked between Pennsylvania (6<sup>th</sup>) and New Jersey (8<sup>th</sup>). Ohio's total GDP was higher than those of all neighboring states except for Pennsylvania.
- On a per-capita basis, Ohio's GDP of \$59,753 was the 24<sup>th</sup> largest in the nation in 2019. Among its neighboring states, only Pennsylvania ranked higher than Ohio, with per-capita GDP of \$63,546 (20<sup>th</sup>).
- Ohio's total GDP accounted for 3.3% of U.S. GDP in 2019, about the same percentage as a decade earlier. Ohio's economy grew mostly at slower rates than the U.S. as a whole during the ten years ending in 2019. In nominal terms (i.e., not adjusted for inflation), Ohio's GDP grew at an average rate of 3.8% per year during this period, while GDP for the U.S. grew by 4.0% per year.
- Over the last decade, average annual economic growth in one of Ohio's neighboring states was faster than in Ohio – Michigan (4.0%). The remaining neighboring states had slower GDP growth than that of Ohio – Indiana (3.7%) Pennsylvania (3.5%), Kentucky (3.3%), and West Virginia (2.2%).
- If Ohio's economy were compared with the U.S. and other countries, it would have ranked 21<sup>st</sup> largest in the world in 2019, with 0.8% of world GDP, based on an International Monetary Fund measure with GDP in domestic currencies converted into dollars at official exchange rates for almost all countries. On this basis, Ohio's ranking would have been just below Switzerland (20<sup>th</sup>).

## Ohio's Per-Capita Income Remains Below U.S. Average

Ohio's Per-Capita Income as Percent of U.S. Average



Source: U.S. Bureau of Economic Analysis

- Ohio's per-capita income last exceeded the U.S. average in 1969, and since that year has remained below the nationwide average. The shortfall between Ohio's per-capita income and the U.S. average, which started in 1970, widened over the years to more than 10 percentage points in 2006, 2007, and 2008, but subsequently fell back to 8% in 2013. Then the gap rose again to surpass 10% in 2017, 2018, and 2019.
- In 2019, Ohio's per-capita income of \$50,546 ranked 31<sup>st</sup> among states in the nation. Connecticut's per-capita income was the highest at \$79,087. The lowest, Mississippi, was \$39,368. As shown in the table below, Ohio's per-capita income was higher than all neighboring states except Pennsylvania.

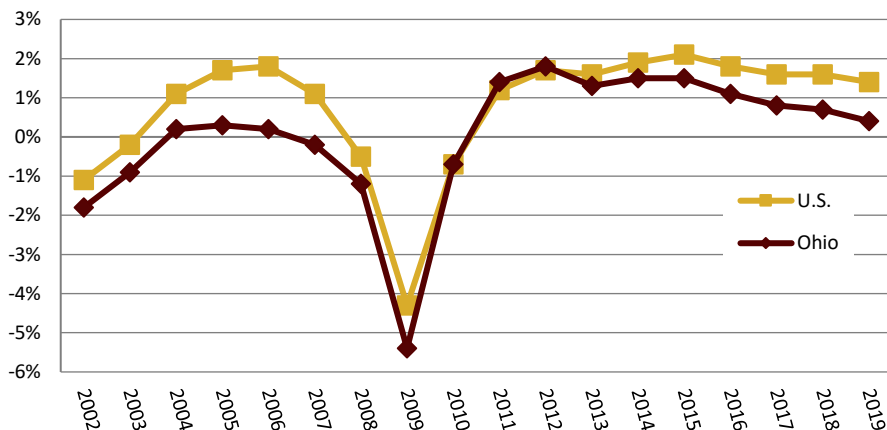
### Per-Capita Income for the U.S., Ohio, and Neighboring States in 2019

State	National Rank	Per-Capita Income
U.S.	--	\$56,663
Pennsylvania	15	\$58,775
<b>Ohio</b>	<b>31</b>	<b>\$50,546</b>
Michigan	32	\$50,320
Indiana	36	\$48,657
Kentucky	46	\$44,017
West Virginia	49	\$42,336

## Ohio Employment Grows But Trails National Pace

Source: U.S. Bureau of Labor Statistics

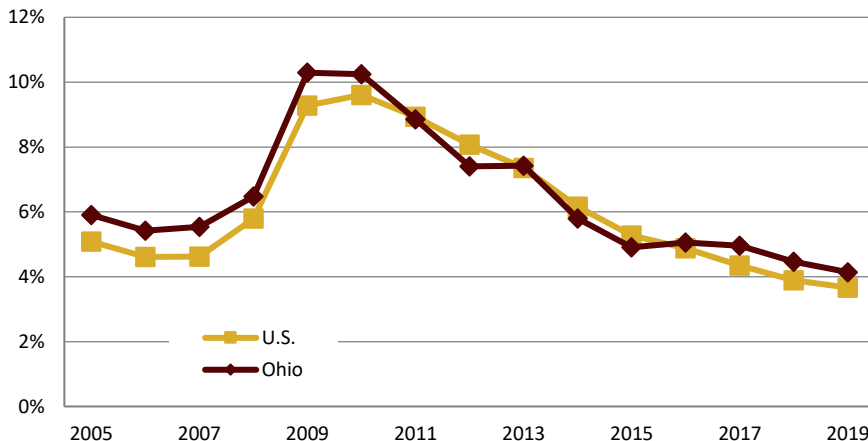
Ohio and United States Employment Growth Rates



- The pace of employment growth in Ohio has trailed the national pace during the last 18 years except for 2010, 2011, and 2012. From 2017 through 2019, Ohio nonfarm payroll employment grew 0.8%, 0.7%, and 0.4%, respectively. During the same years, U.S. nonfarm payroll employment grew by 1.6%, 1.6%, and 1.4%.
- Ohio’s rate of job growth each year since 2011 was higher than any annual rate from 2002 through 2010.
- U.S. employment’s pre-great recession peak of 139.49 million people that occurred in November 2007 was regained by June 2014 and met an all-time record of 153.18 million in November 2019. Ohio’s employment peaked at 5.69 million in December 1999, and has yet to regain that total, though reaching 5.63 million in November 2018.
- Between 2002 and 2019, total payroll employment in Ohio grew 2.6%. This rate of growth ranks 47<sup>th</sup> nationally, ahead of neighboring states West Virginia (2.5%) and Michigan (-1.2%) but behind Pennsylvania (7.5%), Indiana (8.8%), and Kentucky (9.0%). During this time period, the states with the fastest growth rates of employment were Utah (45.4%), Texas (35.5%), and Nevada (34.8%).
- Over the years between 2017 and 2019, the state’s employment in the following supersectors has increased: mining and logging (4.4%); construction (4.1%); manufacturing (2.1%); education and health services (1.6%); finance (1.1%); business and professional services (1.1%); trade, transportation, and utilities (0.4%); leisure and hospitality (1.4%); and government (0.4%). During these years, total payroll employment in Ohio increased by 61,000 jobs, accounting for 1.4% of all job gains nationally.

## Ohio's Unemployment Rate Is Above National Rate

Ohio and United States Average Annual Unemployment Rates



Sources: U.S. Bureau of Labor Statistics; Ohio Labor Market Information

- In 2019, Ohio's average unemployment rate was 4.1%, which was above the national average of 3.7%. Ohio's unemployment rate was higher than the national rate in recent years, but was equal to or below the national rate from 2011 through 2015.
- The unemployment rate is measured as the number of the unemployed – people age 16 or over who do not currently have a job but are actively looking for one – as a percent of the labor force, which is made up of the employed and the unemployed.
- Between 2005 and 2019, Ohio's unemployment rate peaked at 10.3% in 2009, before falling to 4.1% in 2019, the lowest rate since 2000. During the same time period, Ohio's labor force peaked at 5.99 million in 2007 before declining to 5.70 million in 2015, its lowest point since 1997. The labor force subsequently expanded to 5.80 million in 2019.
- Ohio's 2019 unemployment rate of 4.1% was equal to or lower than its neighboring states except Indiana (3.3%). Michigan had a comparable rate (4.1%), whereas rates were higher in Kentucky (4.3%), Pennsylvania (4.4%), and West Virginia (4.9%).
- Unemployment rates vary among Ohio's counties. Generally, in 2019, the counties with the highest rates of unemployment were on the eastern and southern edges of the state. In total, 61 of Ohio's 88 counties (69%) had unemployment rates within one percentage point of the annual statewide rate (about 3.1% to 5.1%). The highest rate among counties was 8.3% (Monroe) and the lowest rate was 2.6% (Mercer).

## Ohio Employment by Sector Stabilizes

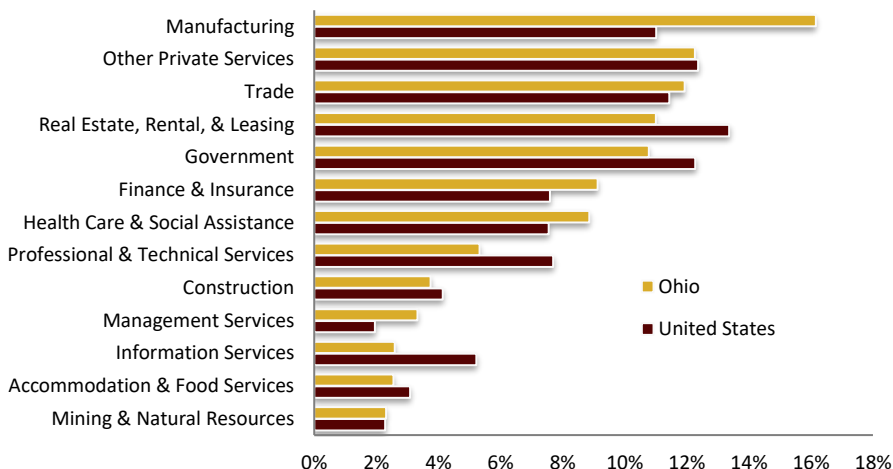
Ohio Nonfarm Employment by Sector (Number in Thousands)						
Sector	2000		2010		2019	
	Number	Share	Number	Share	Number	Share
<b>Goods-Producing (Private)</b>						
Mining/Natural Resources	12.9	0.2%	11.3	0.2%	11.9	0.2%
Construction	246.1	4.4%	168.8	3.4%	226.0	4.0%
Manufacturing	1,021.7	18.2%	621.4	12.3%	701.4	12.6%
<b>Subtotal</b>	<b>1,280.8</b>	<b>22.8%</b>	<b>801.5</b>	<b>15.9%</b>	<b>939.3</b>	<b>16.8%</b>
<b>Service-Providing (Private)</b>						
Trade (Retail & Wholesale)	917.0	16.3%	764.2	15.2%	789.6	14.1%
Transportation & Utilities	196.1	3.5%	180.8	3.6%	235.8	4.2%
Information	107.5	1.9%	77.7	1.5%	69.5	1.2%
Financial Activities	305.2	5.4%	276.8	5.5%	309.5	5.5%
Professional & Business	647.6	11.5%	628.9	12.5%	735.1	13.2%
Educational & Health	678.6	12.1%	838.6	16.7%	940.3	16.8%
Leisure and Hospitality	483.3	8.6%	475.3	9.4%	568.6	10.2%
Other Services	223.4	4.0%	206.1	4.1%	213.1	3.8%
<b>Subtotal</b>	<b>3,558.7</b>	<b>63.3%</b>	<b>3,448.3</b>	<b>68.5%</b>	<b>3,861.5</b>	<b>69.1%</b>
<b>Government</b>	<b>785.1</b>	<b>14.0%</b>	<b>786.1</b>	<b>15.6%</b>	<b>786.1</b>	<b>14.1%</b>
<b>Total</b>	<b>5,624.5</b>	<b>100%</b>	<b>5,035.9</b>	<b>100%</b>	<b>5,586.8</b>	<b>100%</b>

*Sources: Ohio Labor Market Information; U.S. Bureau of Labor Statistics*

- Between 2000 and 2010, Ohio employment in private goods-producing industries decreased from 22.8% of Ohio employment to 15.9%, then grew to 16.8% in 2019. Employment in private service-providing industries rose from 63.3% of employment in 2000 to 68.5% in 2010, then edged up to 69.1% in 2019. Employment in government fluctuated between 14% and 15% from 2000 to 2019, but peaked above 15% in 2009, 2010, and 2011.
- Employment in goods-producing industries fell by about 479,000 from 2000 to the post-recession year 2010, then grew almost 138,000 to 2019. Employment in manufacturing decreased by 400,000 in the earlier period, then grew by 80,000.
- Employment in the private service-providing sector decreased by 110,000 from 2000 to 2010, then grew by 413,000.
- Among private service industries, employment shares were stable or increased in both periods, with the notable exceptions of the trade sectors, retail and wholesale, and the information sector. The share of the other services sector decreased slightly in the later period.

## Manufacturing's Share of the Economy is Larger in Ohio Than in Most Other States

Industry Shares of Gross Domestic Product in 2019



Source: U.S. Bureau of Economic Analysis

- Ohio's economy remains more concentrated in manufacturing than the nation as a whole. Output of factories accounted for 16% of Ohio's gross domestic product (GDP) in 2019, and 11% of the national economy.
- Other industry groups that comprise a greater share of Ohio's economy than nationwide include finance and insurance, management services, health care and social assistance, and to a lesser extent, trade.
- Manufacturing's larger share of Ohio's GDP reflects the state's historical specialization in the production of durable goods, particularly motor vehicles and parts, fabricated metal products, machinery, primary metals, electrical equipment and appliances, and nonmetallic mineral products, as well as nondurable goods including plastics and rubber products, and petroleum and coal products.
- Ohio was the third leading state in the nation in 2019 in the value of factory output, at \$112.9 billion, trailing only California and Texas. Nine states derived higher shares of their GDP from manufacturing than Ohio in 2019: Indiana, Louisiana, Wisconsin, Michigan, Kentucky, Iowa, North Carolina, Alabama, and South Carolina.
- Production of goods – in construction, natural resource industries, mining, and manufacturing – accounted for 22% of Ohio's GDP in 2019, higher than the comparable figure for the United States (17%). Private services were 67% of the value of economic activity in Ohio and 70% for the nation. Government accounted for less than 11% of Ohio GDP and more than 12% for the nation. (Numbers do not sum to 100% because of rounding.)

Ohio Ranks 9<sup>th</sup> Nationally in the Value of Exports

Top Ten States in Exports				
2019 Rank	State	2018 (in billions)	2019 (in billions)	% Change 2018-2019
	U.S.	\$1,664.1	\$1,645.5	-1.1%
1	Texas	\$315.4	\$330.5	4.8%
2	California	\$178.4	\$173.3	-2.9%
3	New York	\$81.5	\$73.3	-10.1%
4	Louisiana	\$66.2	\$63.7	-3.8%
5	Washington	\$77.7	\$60.1	-22.7%
6	Illinois	\$65.4	\$59.9	-8.4%
7	Florida	\$57.2	\$56.0	-2.1%
8	Michigan	\$57.9	\$55.3	-4.5%
9	<b>Ohio</b>	<b>\$54.3</b>	<b>\$53.0</b>	<b>-2.4%</b>
10	Pennsylvania	\$41.1	\$42.5	3.4%

Sources: U.S. Bureau of Census; U.S. Bureau of Economic Analysis; Ohio Development Services Agency

- In 2019, the value of Ohio's exports to foreign countries was \$53.0 billion, 9<sup>th</sup> highest among the 50 states. Ohio's export value decreased 2.4% from 2018 to 2019. Overall, Ohio accounted for 3.2% of total U.S. exports in 2019.
- Ohio's export value was 7.6% of the state's gross domestic product (GDP) in 2019, slightly lower than the U.S. average of 7.7%.
- On a per-capita basis, Ohio's exports ranked 17<sup>th</sup> highest in 2019. Ohio's per-capita export value of \$4,533 in that year was 9.6% lower than the U.S. average of \$5,013.
- In 2019, sales of Ohio exports exceeded \$1 billion in each of nine markets: Canada, Mexico, China, the United Kingdom, Brazil, Japan, France, Germany, and South Korea. Canada was the largest market, purchasing \$20.5 billion (38.6%) of Ohio's exports, followed by Mexico at \$6.9 billion (13.0%). Ohio's largest market outside of North America was China, accounting for \$3.2 billion (6.1%).
- Eleven of Ohio's production sectors exported over \$1.0 billion each in 2019. Industrial machinery was the largest at \$9.7 billion, followed by vehicles and parts (\$8.8 billion), aircraft/spacecraft and parts (\$5.9 billion), electrical machinery (\$3.2 billion), plastics (\$3.0 billion), optical/medical instruments (\$1.7 billion), oil seed/grain (\$1.7 billion), perfumery and cosmetics (\$1.4 billion), iron/steel products (\$1.3 billion), miscellaneous chemical products (\$1.1 billion), and soap/waxes/lubricants (\$1.1 billion). Together, these 11 sectors accounted for 73.4% of Ohio's exports in 2019.
- From 2018 to 2019, Ohio's exports of iron and steel and rubber/rubber products dropped below \$1.0 billion; the value of their exports dropped by \$197.5 million (17.8%) and \$158.9 million (14.6%), respectively. In 2019, exports of soap/waxes/lubricants rose above \$1.0 billion, increasing \$63.2 million, or 6.4%, from 2018.

## Cash Receipts From Ohio's Agricultural Commodities Totalled \$9.0 Billion in 2018

Cash Receipts from Ohio's Agricultural Commodities in 2018		
Commodity	Receipts (\$ in Thousands)	% of Ohio Total Receipts
Soybeans	\$2,420,854	26.8%
Corn	\$2,070,926	23.0%
Dairy Products	\$902,492	10.0%
Chicken eggs	\$762,538	8.5%
Hogs	\$667,969	7.4%
Top Five Subtotal	\$6,824,779	75.7%
All Commodities	\$9,017,766	100.0%

*Source: U.S. Department of Agriculture*

- Cash receipts from Ohio's five leading commodities totaled \$6.8 billion in 2018, accounting for 75.7% of the state's total commodity cash receipts of approximately \$9.0 billion in that year.
- Cash receipts from four of Ohio's five leading agricultural commodities ranked among the top ten in the nation in 2018. The highest ranking was for chicken eggs (3<sup>rd</sup>), which has ranked in the top five nationally for the past ten years. Overall, Ohio ranked 16<sup>th</sup> among all states from the sale of agricultural commodities.
- Between 2008 and 2018, Ohio's overall cash receipts from commodities increased by 17.4%, from \$7.7 billion to \$9.0 billion. This rate of increase was lower than the national average increase of 18.6% during the same period, but was the second highest among the five states in the Cornbelt Production Region. Within this region, Ohio was ahead of Indiana (9.9%), Illinois (11.1%), and Iowa (16.2%), but behind Missouri (21.8%).
- Price volatility of agricultural products has a significant effect on cash receipts each year. During the 2008-2018 period, cash receipts from commodities reached their highest in 2013 at \$10.9 billion.
- Ohio's net farm income, or the return earned by farm operations, increased by 41.1% between 2017 and 2018, from \$1.5 billion to \$2.2 billion. National net farm income rose by 11.6% over this time, from \$75.1 billion to \$83.8 billion. Among Ohio's five leading commodities, cash receipts from dairy products and hogs declined between these years, while those from soy, corn, and chicken eggs increased. The largest increase was for chicken eggs, which rose by 45.5%.
- In 2018, Ohio had 77,800 total farms, 4<sup>th</sup> most in the nation, and approximately 13.9 million acres of farmland. The number of farms in Ohio represents 3.9% of the nearly 2.0 million farms nationwide.



## Median Home Prices in Ohio's Eight Major Markets Continue to Climb

### Median Sales Price of Existing Single-Family Homes in Metropolitan Statistical Areas, Post-Great Recession

MSA	2011	2019	% Change 2011-2019
Akron	\$90,900	\$155,000	70.5%
Canton	\$90,900*	\$139,400	53.4%
Cincinnati	\$122,300	\$185,600	51.8%
Cleveland	\$105,100	\$164,100	56.1%
Columbus	\$123,900	\$216,600	74.8%
Dayton	\$93,300	\$157,800	69.1%
Toledo	\$75,700	\$131,000	73.1%
Youngstown	\$67,200*	\$102,600	52.7%
Midwest	\$135,800	\$214,500	58.0%
United States	\$166,200	\$274,600	65.2%

\*Represents 2010 median sale price of existing single-family homes. The 2011 median sale price is not available for these metropolitan statistical areas.

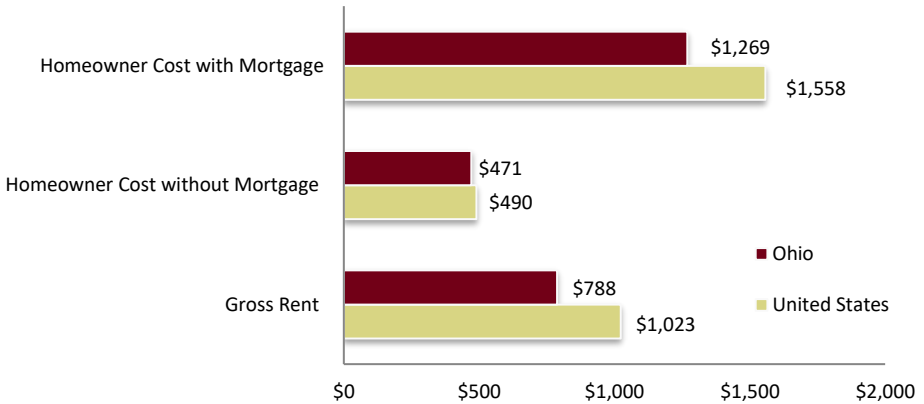
Source: National Association of Realtors

- In 2019, median home prices in Ohio's eight metropolitan statistical areas (MSAs) continue to rebound from their post-great recession nadir in 2011. Since then, values increased between 51.8% in Cincinnati and 74.8% in Columbus.
- Median home prices in Akron, Columbus, Dayton, and Toledo MSAs increased at a higher rate from 2011-2019 than home prices in both the Midwest region and the United States as a whole. Median home prices increased 58.0% in the Midwest region and 65.2% in the United States during this period.
- The Columbus MSA is the sole Ohio MSA to surpass the Midwest region median in this time period, doing so in both 2018 and 2019. The median home prices in Ohio's eight MSAs continued to remain below the median of the United States between 2011 and 2019. In 2019, the Columbus MSA had the highest median sales price in Ohio, at \$216,600, while the Youngstown MSA had the lowest, at \$102,600.
- From 2018 to 2019, median home prices in each of Ohio's MSAs increased between 5.7% (Canton) and 9.1% (Youngstown). The U.S. annual sales price increase was 5.0% for 2019.
- The number of existing homes sold increased by 30.2% in the Midwest region, from 960,000 in 2011 to 1.25 million in 2019.<sup>1</sup> The number of homes sold nationwide during this same period increased by 25.3%, from 4.26 million to 5.34 million.

<sup>1</sup> Existing homes includes single-family homes, condominiums, and co-ops.

## Ohio Housing Costs Remain Below the National Average

Median Monthly Housing Costs, 2014-2018



Source: U.S. Census, 2014-2018 American Community Survey

- Over the 2014-2018 period, median monthly housing costs (including utilities, fuel costs, insurance, real estate taxes, and home fees) in Ohio were below the national median in three categories: (1) homeowner cost with mortgage, (2) homeowner cost without a mortgage, and (3) gross rent.
- Ohio's median monthly housing costs according to these three measures were third highest among the five surrounding states. Housing costs were higher in Pennsylvania and Michigan but lower in Indiana (except for gross rent), Kentucky, and West Virginia.
- For the 2014-2018 period, the median value of an owner occupied house in Ohio was \$140,000; the U.S. median value was \$204,900. Ohio's median home values ranged from \$87,200 in Crawford County to \$293,900 in Delaware County.
- Ohio's homeownership rate of 66.0% surpassed the U.S. homeownership rate of 63.8% during the 2014-2018 period, but is the lowest rate among the five surrounding states. Homeownership rates were the highest in Geauga County at 86.1% and the lowest in Franklin County at 53.4%.
- Between 2012-2016 and 2014-2018, median gross rent in Ohio increased 6.1% from \$743 to \$788. The number of renter households was stable between these periods at slightly under 1.6 million.
- A widely used federal measure of housing affordability is whether renters pay 30% or less of household income on rent. By this standard, 54.2% of Ohio renters qualify as living in affordable housing, a greater share than the 49.8% who live in affordable housing nationwide.

## Ohio's Transportation Infrastructure Is Among the Largest and Most Used in the Nation

Ohio Transportation Statistics			
Measurement	Ohio Statistic	Ohio Ranking	50-State Median
<b>Infrastructure</b>			
Total area of state (square miles)	44,826	34 <sup>th</sup>	57,094
Area of state that is water (%)	8.8%	16 <sup>th</sup>	3.3%
Bridges	27,167	2 <sup>nd</sup>	10,332
Centerline road miles	123,014	9 <sup>th</sup>	80,416
Freight railroad miles	5,132	3 <sup>rd</sup>	2,588
Inland waterway miles	440	21 <sup>st</sup>	305
Public transit vehicles (urban and rural)	2,865	11 <sup>th</sup>	1,256
<b>Annual Usage</b>			
Motor vehicle registrations	10,913,773	5 <sup>th</sup>	4,073,860
Licensed drivers per 1,000 in population	687	37 <sup>th</sup>	716
Vehicle miles traveled (VMT) (millions)	114,474	6 <sup>th</sup>	49,795
VMT per licensed driver	14,251	30 <sup>th</sup>	14,521
Public transit passenger trips (urban and rural)	96,600,569	15 <sup>th</sup>	37,003,329
Airport enplanements	10,309,530	24 <sup>th</sup>	7,324,898
<b>Commercial Activity – Value of Freight Originating in the State, by Mode (in \$ millions)</b>			
Truck freight	\$516,587	5 <sup>th</sup>	\$179,883
Multiple modes and mail	\$71,582	10 <sup>th</sup>	\$25,077
Pipeline (mainly oil and natural gas)	\$46,845	8 <sup>th</sup>	\$12,241
Rail freight	\$27,634	7 <sup>th</sup>	\$8,585
Air freight	\$10,771	14 <sup>th</sup>	\$4,514
Waterborne freight	\$1,014	34 <sup>th</sup>	\$1,522

Sources: U.S. Census Bureau; Federal Highway Administration (FHWA); Association of American Railroads; U.S. Army Corps of Engineers; American Public Transportation Association and Federal Transit Administration; Federal Aviation Administration; FHWA and Bureau of Transportation Statistics – Freight Analysis Framework

- Although Ohio's land mass of 44,826 square miles ranks 34<sup>th</sup> in the nation, the state's transportation infrastructure is one of the largest and most used.
- Ohio's interstate, state route, and local road network consists of approximately 123,000 centerline road miles (9<sup>th</sup> highest among states) and over 27,000 bridges (2<sup>nd</sup> among states).
- Ohio's freight transportation network includes 8 major interstate routes, 13 intermodal rail terminals, 11 ports along Lake Erie and the Ohio River, 7 commercial airports, and 3 multimodal facilities.