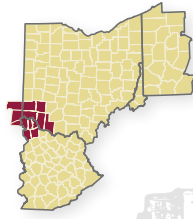


FOURTH DISTRICT METRO MIX

YOUR DISTRICT, YOUR DATA



Guhan Venkatu and Mary DeStefano

CINCINNATI, OHIO MSA | AUGUST 2018

FEDERAL RESERVE BANK of CLEVELAND

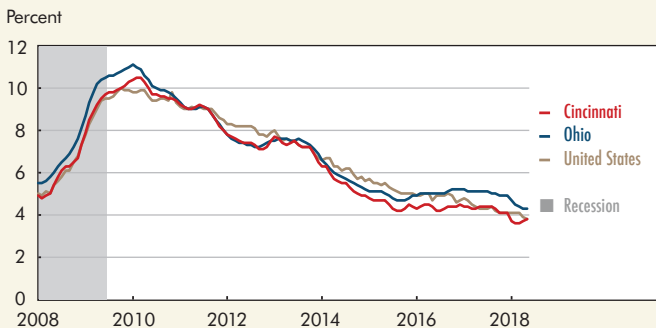
Cincinnati—Positive Conditions Continue

As of April 2018, the Cincinnati metro area's unemployment rate was more than half a percentage point lower than the rate was in April 2017. The unemployment rates registered to this point in 2018 have been the lowest the metro area has seen since 2001. In 2017, employment in the metro area grew 1.4 percent. Employment gains were broad based, with most major sectors seeing increases. Per capita GDP grew roughly 2.5 percent in the Cincinnati metro area in 2016 after being adjusted for inflation; this gain was notably stronger than the gains registered in Ohio or the United States during the same period. Finally, while per capita consumer debt levels have drifted down slightly, credit card delinquency rates have drifted up slightly.

METRO AREA SNAPSHOT

	Unemployment Rate		Median Home Value		Payroll Employment		Credit Card Delinquency Rate	
	April 2018 (percent)	One-year change (percentage points)	April 2018	One-year change (percent)	December 2017 (thousands)	One-year change (percent)	2018:Q1 (percent)	One-year change (percentage points)
Cincinnati	3.7	-0.6	\$158,800	6.1	1,044	1.4	6.5	0.4
Ohio	4.3	-0.8	\$131,900	6.6	5,378	0.8	7.0	0.3
United States	3.9	-0.5	\$215,100	8.5	144,800	1.5	7.3	0.2

Apart from a slight increase in April 2018, the Cincinnati metro area's unemployment rate is the lowest it has been since 2001.

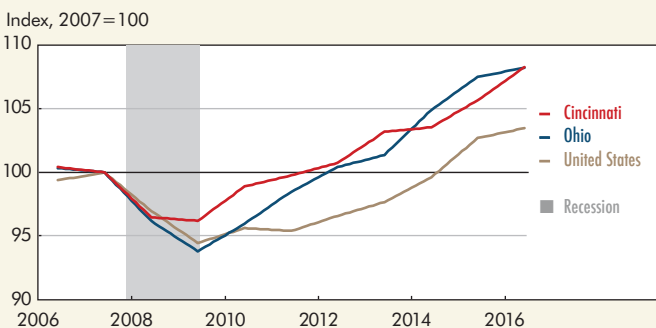


Source: Bureau of Labor Statistics/Haver Analytics.

◀ UNEMPLOYMENT RATE

The Cincinnati metro area's unemployment rate increased slightly in April (0.1 percentage points) to 3.7 percent. Nevertheless, the rate is more than half a percentage point below where it was in April 2017, and the rate remains low by historical standards. For example, apart from recent readings in 2018, the last time the area's unemployment rate was this low was in 2001—nearly 17 years ago. Moreover, the April unemployment rate is more than a full percentage point below the lowest rate registered during the previous economic expansion (4.8 percent). These data are consistent with anecdotal accounts from firms in the area, which report increasing difficulty finding qualified workers to take available positions.

Adjusted for inflation, per capita GDP grew roughly 2.5 percent in the Cincinnati metro area in 2016.



Source: Bureau of Economic Analysis/Haver Analytics.

◀ GROSS DOMESTIC PRODUCT

Adjusted for inflation, per capita GDP grew roughly 2.5 percent in the Cincinnati metro area in 2016. This growth was notably stronger than the growth registered in Ohio and the United States during the same period, 0.7 percent and 0.8 percent, respectively. The increase was also slightly stronger than the roughly 2 percent increase the metro area achieved in 2015. Through the expansion to this point—2009 to 2016—inflation-adjusted per capita GDP in the Cincinnati metro area has grown about 1.7 percent annually, roughly halfway between the state's growth (1.3 percent) and the nation's growth (2.1 percent).

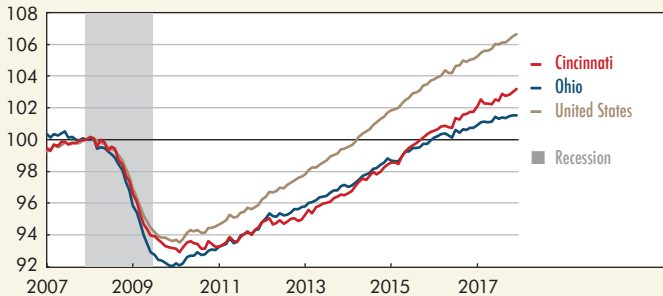
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AUGUST 2018

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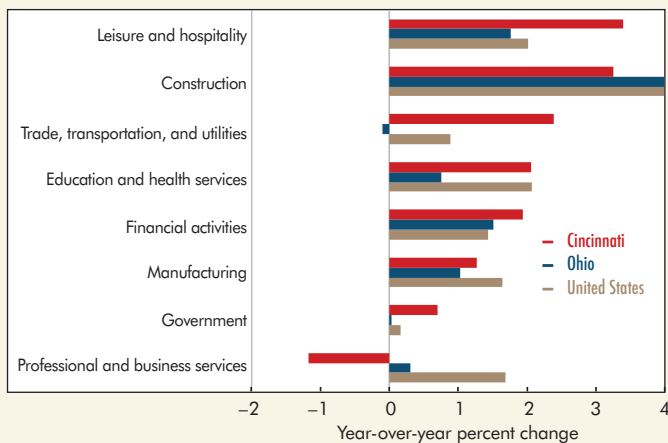
As of December 2017, employment in the Cincinnati metro area grew 1.4 percent on a year-over-year basis.

Index, 2007:M12=100



Source: Bureau of Labor Statistics' Quarterly Census of Employment and Wages.

Leisure and hospitality and construction were the Cincinnati metro area's strongest growing employment sectors in 2017.



Source: Bureau of Labor Statistics' Quarterly Census of Employment and Wages.

The following sectors were imputed due to missing data: financial activities, professional and business services, leisure and hospitality, and construction.

Total employment in the Cincinnati metro area increased by more than 14,500 jobs in 2017.

Sector	Employment	12-month change	Share of employment
Trade, transportation, and utilities	214,533	5,003	20.4
Education and health services	163,425	3,293	15.5
Professional and business services	160,312	-1,900	15.2
Leisure and hospitality	119,653	3,925	11.4
Government	119,126	825	11.3
Manufacturing	116,580	1,466	11.1
Financial activities	67,715	1,288	6.4
Construction	44,579	1,406	4.2

Source: Bureau of Labor Statistics' Quarterly Census of Employment and Wages.

The following sectors were imputed due to missing data: financial activities, professional and business services, leisure and hospitality, and construction.

EMPLOYMENT AND INDUSTRIAL SECTORS

◀ EMPLOYMENT

As of December 2017, employment in the Cincinnati metro area grew 1.4 percent on a year-over-year basis. That change was close to the 1.5 percent increase in employment experienced nationally. By contrast, employment in Ohio grew a more modest 0.8 percent. Despite the recent divergence, employment growth in the Cincinnati metro area has tended to be similar to the gains posted statewide, about 1.1 percent and 1.0 percent, respectively. National employment gains have been stronger, with employment increasing at an annual rate of 1.5 percent during the expansion. As a result, though the Cincinnati metro area and the United States saw similar declines in employment in percentage terms during the Great Recession, employment in the United States was about 7 percent higher in December 2017 than it was in December 2007, while employment in the Cincinnati metro area was about 3 percent higher in December 2017 than it was in December 2007.

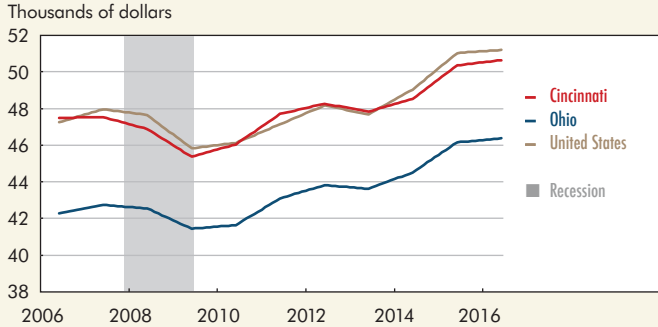
◀ EMPLOYMENT GROWTH BY SECTOR

In 2017, the Cincinnati metro area saw stronger employment gains (in percentage terms) than did Ohio in all major employment sectors except construction and professional and business services. Employment growth in the metro area was strongest in leisure and hospitality, which grew 3.4 percent, and construction, which grew 3.3 percent. Employment in the metro area's largest sector—trade, transportation, and utilities—increased 2.4 percent. In contrast, professional and business services saw employment decline by 1.2 percent. Because this sector is one of the larger sectors in the Cincinnati metro area in terms of employment and because this sector tends to generate higher wages than other sectors, this is a development worth watching.

◀ SECTOR EMPLOYMENT

Just as total employment increased in the Cincinnati metro area from December 2016 to December 2017, employment levels have increased across all major employment sectors except the professional and business services sector. Total employment in the metro area increased by more than 14,500 jobs in 2017. The trade, transportation, and utilities sector was the greatest contributor to the increase in total employment, accounting for about a third of the metro area's employment gains. The leisure and hospitality sector, which constitutes about 11 percent of the metro area's total employment, made the second-greatest contribution to the increase in employment (26.9 percent). Together, the trade, transportation, and utilities sector; the leisure and hospitality sector; and the education and health services sector contributed 83.9 percent of the increase in the area's employment from December 2016 to December 2017.

After accelerating in 2015, per capita income growth in the Cincinnati metro area slowed in 2016.



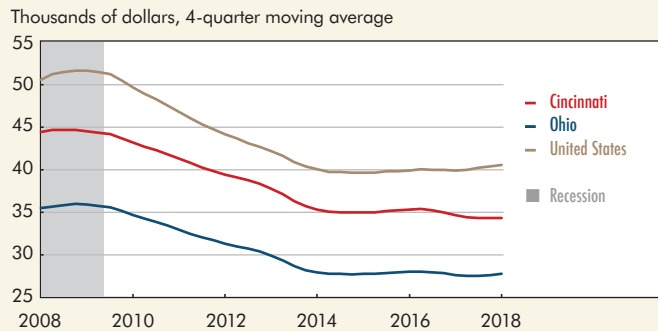
Source: Bureau of Economic Analysis/Haver Analytics.

INCOME

◀ INCOME PER CAPITA

After accelerating in 2015, per capita income growth in the Cincinnati metro area slowed in 2016. Ohio and the nation as a whole saw weaker income growth, as well. In 2015, per capita income grew robustly in the metro area (3.8 percent), the state (3.7 percent), and the nation (4.1 percent); however, in 2016, growth slowed substantially in the metro area (0.6 percent), the state (0.5 percent), and the nation (0.3 percent). Between 2009—when the expansion began—and 2016, annual growth in per capita income has been almost identical across the three geographies: 1.2 percent in the metro area, 1.3 percent in Ohio, and 1.2 percent in the United States.

Per capita consumer debt levels have drifted down slightly in the Cincinnati metro area since early in 2017.



Source: Authors' calculations from the Federal Reserve Bank of New York's Consumer Credit Panel/Equifax.

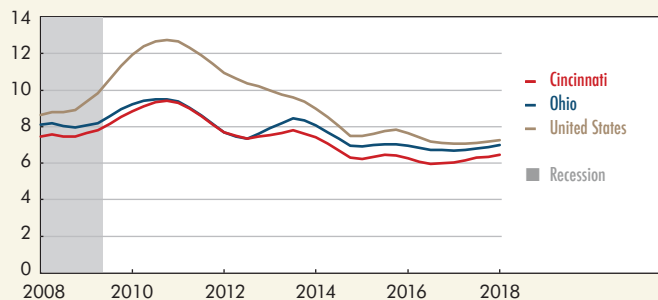
CONSUMER FINANCES

◀ CONSUMER DEBT

Per capita consumer debt levels have drifted down slightly in the Cincinnati metro area since early in 2017. In the four quarters ending in March 2018, debt levels fell about 1 percent. By contrast, per capita consumer debt levels rose slightly in both Ohio and the United States during the same period. In the nation, the increase approached approximately 2 percent. Nevertheless, debt levels across the three geographies remain low. Relative to levels at the end of the recession (June 2009), per capita consumer debt levels are about 22.5 percent lower in the metro area, 22.3 percent lower in the state, and 21.2 percent lower in the nation.

Between the fourth quarter of 2016 and the first quarter of 2018, credit card delinquency rates rose half a percentage point in the Cincinnati metro area.

Percent of credit card balances delinquent, 4-quarter moving average



Source: Authors' calculations from the Federal Reserve Bank of New York's Consumer Credit Panel/Equifax.

◀ CREDIT CARD DELINQUENCY RATE

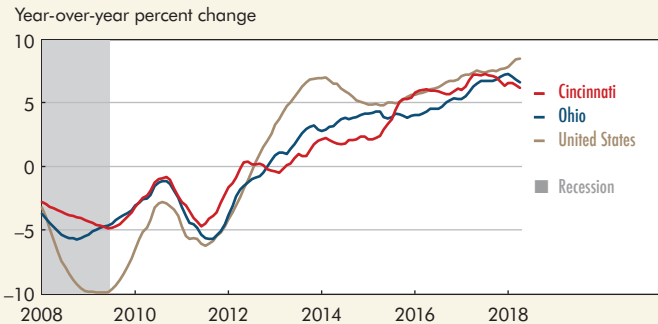
Credit card delinquency rates have drifted up slightly since the end of 2016. From the fourth quarter of 2016 to the first quarter of 2018, the rate rose half a percentage point in the Cincinnati metro area (from 6.0 percent to 6.5 percent). Delinquency rates have also drifted up, albeit more modestly, in Ohio and the United States during the same period. Still, credit card delinquency rates remain far lower than the highs reached in the early phase of the current economic expansion, when households were still recovering from the Great Recession. Specifically, the most recent readings for the Cincinnati metro area and Ohio are 2.9 percentage points and 2.5 percentage points lower, respectively, than the highs recorded in the fourth quarter of 2010; for the United States, the difference during the same time period is 5.5 percentage points.

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AUGUST 2018

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Median home values rose 6.1 percent in the Cincinnati metro area in the year that ended with April 2018.

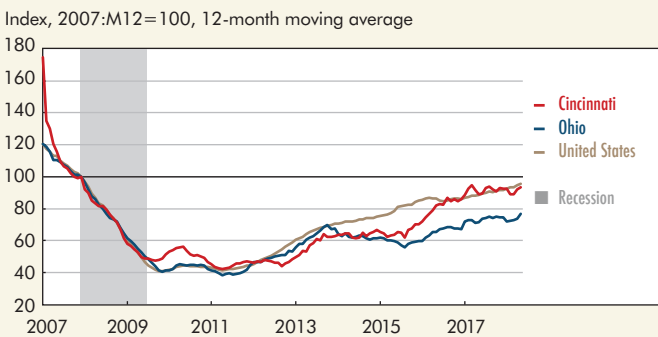


HOUSING MARKET

◀ HOUSING PRICES

Median home values rose 6.1 percent in the Cincinnati metro area to \$158,800 in the year that ended with April 2018. That increase is somewhat weaker than the 7.2 percent increase recorded for the metro area in the previous year that ended with April 2017. Still, recent growth rates remain well above those seen in the previous economic expansion; peak year-over-year increases for the metro area were just more than 4 percent during that period. Throughout the current economic expansion, median home values have risen at annual rate of about 2 percent in the Cincinnati metro area and in Ohio and about 3 percent in the nation as a whole.

The average monthly issuance of residential building permits in the Cincinnati metro area in 2018 is the strongest the area has seen since 2007.



◀ HOUSING PERMITS

Through the first five months of 2018, the average monthly issuance of residential building permits in the Cincinnati metro area slightly exceeded the pace of issuance in 2017. The pace in 2018, about 546 building permits per month, is the strongest since 2007, when the last expansion ended. In the metro area, the state, and the nation, permit issuance has gradually increased as the current economic expansion has strengthened. Nevertheless, on a trailing, 12-month-average basis, the number of permits issued across each of the three geographies remains lower than its respective levels in December 2007; for Ohio, permit issuance is about 25 percent lower.

DEMOGRAPHICS AND EDUCATION

◀ CINCINNATI, OHIO

In the 10-year period from 2006 to 2016, population in the Cincinnati metro area grew almost 5 percent. For context, during the same period, population change in the two other metro areas in Ohio that are about as populous, Cleveland and Columbus, was -1.0 percent and 12.7 percent, respectively. The national population grew nearly 9 percent during this period.

	Cincinnati Metro Area		United States	
	2016	Change from 2006	2016	Change from 2006
Population	2,166,029	+4.6%	323,406,000	+8.4%
Adults with less than a high school diploma	9.6%	-3.8 pp	12.5%	-3.4 pp
Adults with an undergraduate degree or higher	33.1%	+6.1 pp	31.3%	+4.3 pp
Median age (years)	37.8	+1.4	37.9	+1.5
Median household income	\$63,168	+0.6%	\$60,397	-0.1%

Note: Percentage points is abbreviated as pp.
Source: US Census Bureau population estimates, American Community Survey.

Guhan Venkatu is group vice president of Regional Analysis and Outreach at the Federal Reserve Bank of Cleveland. Mary DeStefano is a research analyst at the Bank's Cincinnati Branch. The authors thank economic analyst Christopher Vecchio for preparing the charts.

All monthly and quarterly figures are seasonally adjusted, and all dollar figures are in constant dollars, for which the base period is provided by the latest available data. Home prices are an exception, and they are not adjusted for inflation. Where applicable, these adjustments are made prior to calculating percent changes or indexes. Several charts use indexed measures to facilitate comparisons across regions and have a reference line at 100. These numbers can be thought of as the percentages of prerecession levels. If levels were growing before the recession, prerecession indexes will be below 100; if levels were falling before the recession, prerecession indexes will be above 100.

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