ON THE MONEY

A Hannah News Service Publication

Vol. 133, No. 7a By Bill LaFayette, PhD, owner, Regionomics® LLC April 12, 2019

Employment Growth in Ohio's Metropolitan Areas

The April issue of *On the Money* is traditionally an update of population and employment trends in Ohio and its Metropolitan Statistical Areas (MSAs). The population analysis is based on U.S. Census Bureau estimates of MSA population as of the previous July. The employment update is drawn from a U.S. Bureau of Labor Statistics (BLS) revision of monthly U.S., state, and MSA employment in total and by industry sector for the previous two years.

Both of these updates are typically released in March. The BLS employment revisions were released on time, but this year's population update will not come out until April 18. The Census Bureau was impacted by the month-long partial government shutdown, but BLS was not.

Because of this delay, this year's April issue will come in two installments. This article discusses the employment updates and their implication for employment growth in Ohio and its MSAs. A special issue to be released on April 26 will analyze the 2018 population estimates.

Metropolitan Statistical Areas

MSAs are collections of counties defined by the U.S. Office of Management and Budget (OMB), and are intended to give federal agencies a consistent geographical basis for statistical analysis and reporting. MSAs are centered on an urban core (one or more cities) with a population of at least 50,000.

The county or counties containing the urban core are "central counties" and are automatically included in the MSA. Adjacent counties are included if they have what OMB terms, "a high degree of social and economic interaction with the core as measured by commuting ties." Specifically, outlying counties are included in the MSA if at least one of two conditions applies: (1) at least 25 percent of the employed residents of the outlying county commute to one of the central counties for work; and/or (2) at least 25 percent of the jobs in the outlying county are filled by workers who live in a central county.

There are 12 MSAs with urban cores in Ohio. These MSAs and their component counties are listed in Table 1.[1] These MSAs are home to 79 percent of Ohio's population and 72 percent of Ohio's jobs.

Table 1
Component Counties of Ohio MSAs

Akron, OH MSA	**Cleveland-Elyria, OH MSA**	**Lima, OH MSA**
Portage County, OH*	Cuyahoga County, OH*	Allen County, OH*
Summit County, OH*	Geauga County, OH*	**Mansfield, OH MSA**
Canton-Massillon, OH MSA	Lake County, OH*	Richland County, OH*
Carroll County, OH	Lorain County, OH	**Springfield, OH MSA**
Stark County, OH*	Medina County, OH*	Clark County, OH*
Cincinnati, OH-KY-IN MSA	**Columbus, OH MSA**	**Toledo, OH MSA**
Dearborn County, IN	Delaware County, OH*	Fulton County, OH
Ohio County, IN	Fairfield County, OH*	Lucas County, OH*
Union County, IN	Franklin County, OH*	Wood County, OH*
Boone County, KY*	Hocking County, OH	**Weirton-Steubenville, WV-OH**
Bracken County, KY	Licking County, OH	
Campbell County, KY*	Madison County, OH	Jefferson County, OH*
Gallatin County, KY	Morrow County, OH	Brooke County, WV*
Kenton County, KY*	Pickaway County, OH	Hancock County, WV*
Pendleton County, KY	Union County, OH	**Youngstown-Warren-Boardman, OH-PA MSA**
Brown County, OH	**Dayton, OH MSA**	
Butler County, OH*	Greene County, OH*	Mahoning County, OH*
Clermont County, OH*	Miami County, OH*	Trumbull County, OH*
Hamilton County, OH*	Montgomery County, OH*	Mercer County, PA*
Warren County, OH*		

*Central counties.

Updated Ohio Employment Estimates

BLS issues monthly total and industry sector employment estimates for the nation, states, and MSAs. In Ohio, the estimates are prepared by the Ohio Labor Market Information Bureau in cooperation with BLS. These estimates, the Current Employment Statistics (CES), are usually issued five weeks after the fact. Thus, they give a close to real-time view of employment changes. However, in order to produce the estimates so quickly, BLS bases them on a relatively small sample of employers. The national sample totals approximately 141,000 firms and government agencies representing about 616,000 worksites; the sample in Ohio is 4,060 firms covering 27,760 worksites (9 percent of Ohio's 296,000 total worksites).

Using a sample to generate the CES totals creates error. The error is larger the smaller the MSA and the smaller the industry sector, but employment trends can initially be misstated materially even for larger MSAs such as Cincinnati, Cleveland and Columbus, and the state as well. The percentage of worksites sampled also varies among industry sectors: from 7 percent for other services and 11 percent for construction to 72 percent for government. Thus, the

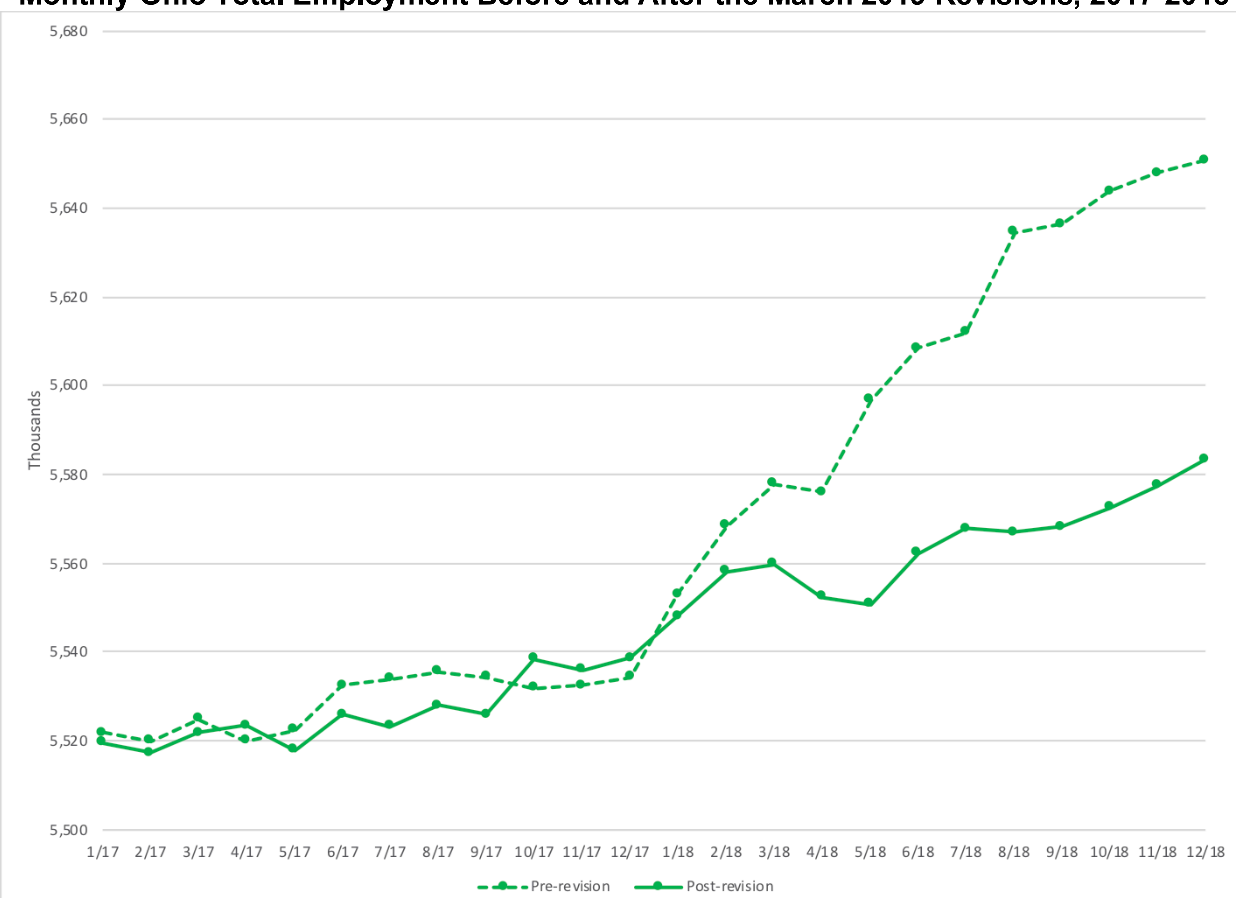
[1] Belmont County is an outlying county of the Wheeling MSA and Lawrence County is an outlying county of the Huntington-Ashland MSA. These MSAs are not included in this analysis because their urban cores are outside of Ohio.

reliability of the estimates also varies among sectors. The overall implication is that this very timely view of the local economy can be misleading.

National CES estimates are corrected each February and state and local estimates are corrected each March as more accurate data become available. These data are primarily the Unemployment Insurance (UI) tax reports required of nearly all employers (and covering about 97 percent of total employment). These UI reports form the basis of the Quarterly Census of Employment and Wages (QCEW), which is often analyzed in these articles. QCEW provides an employment count, not an estimate, and is an input into the correction of the CES totals for previous years. The most recent two years are the focus of the corrections, but previous years' estimates can change slightly with the revision of seasonal adjustment factors.

According to the initial estimates, Ohio monthly employment growth accelerated markedly during 2018, and regularly matched or surpassed U.S. percentage gains. However, the March revisions showed that employment growth was much less than that originally reported. The pre-revision and post-revision monthly estimates of statewide employment are shown in Figure 1 – by the dashed and solid lines, respectively. The correction reduced the 2018 employment gain from 84,100 (1.5 percent) to 34,100 (0.6 percent). The U.S. gain was 1.7 percent. The Ohio employment correction was much greater than in previous years. Employment during 2018 will be revised again next March, but second-year revisions are usually fairly small.

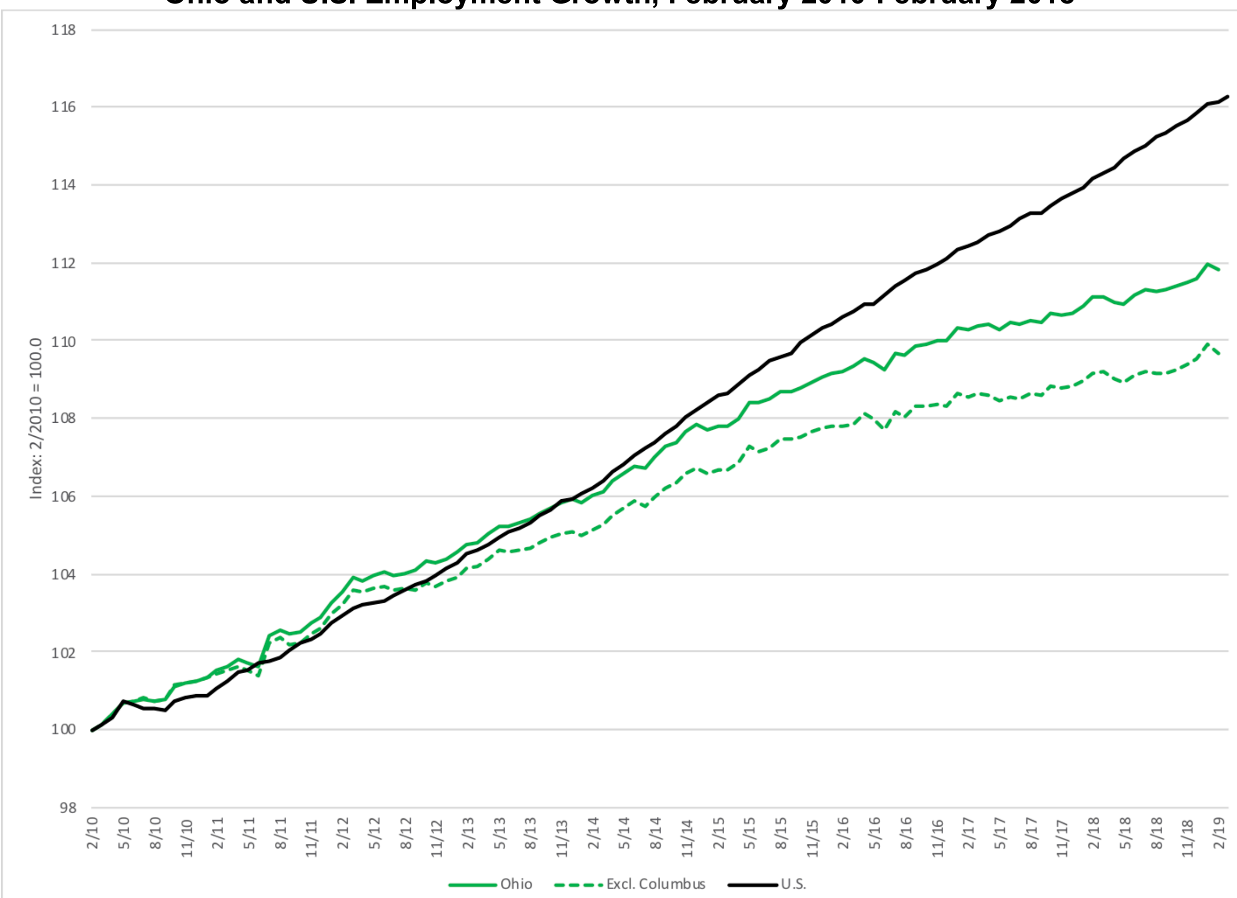
Figure 1
Monthly Ohio Total Employment Before and After the March 2019 Revisions, 2017-2018



Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.

Figure 2 plots Ohio and U.S. employment growth since February 2010, the month that U.S. and Ohio employment growth resumed after the recession. Growth is shown on an index basis. The dotted green line shows Ohio employment growth excluding the Columbus MSA, whose above-average growth has had a material impact on statewide averages. As this graph reveals, Ohio growth exceeded the national average early in the expansion. On a year-over-year basis, Ohio growth tied the national average in 2010 and exceeded it in 2011 and 2012. This was a remarkable feat: the last three consecutive years during which Ohio employment growth equaled or exceeded the national average were 1946, 1947, and 1948. Ohio's growth rate slowed beginning in mid-2012, however, as U.S. employment growth began to accelerate. As a result, the total Ohio employment gain from February 2010 through February 2019 was 591,400 jobs, or 11.8 percent, compared to a national average of 16.1 percent. Excluding Columbus, Ohio's seven-year gain amounted to only 9.7 percent.

Figure 2
Ohio and U.S. Employment Growth, February 2010-February 2018*



*March for U.S. employment.
Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.

Employment Growth in Ohio's MSAs

The March CES corrections also restated employment in all MSAs, giving an updated view of employment growth in these areas. Table 2 compares gains in the expansion that began in early 2010 to the losses suffered during the recession. The months designated as the pre-recession employment peak and the post-recession trough are specific to each area. Although the employment trough occurred in February 2010 for both Ohio and the U.S., employment hit bottom in individual areas as early as October 2009 in the case of Cleveland or as late as February 2011 in the case of Steubenville.

Defining the pre-recession peak is more difficult. National employment clearly peaked in January 2008, but employment in most of Ohio's MSAs declined fairly steadily throughout the 2000s. Even when there was an employment increase late in that expansion period, there were sometimes several short-term peaks followed by declines. The expansion declines were primarily due to the decade-long employment decline in manufacturing. Many MSAs experienced a modest peak in 2006; statewide employment peaked in March 2006. However, these peaks were generally well below their levels in the late 1990s. The peak and trough months for each area are shown in the table.

Table 2
Recovery of Monthly Recession Employment Losses by Ohio and its MSAs

Area	Peak month	Trough month	Peak to trough Number	Peak to trough Pct.	Trough to Feb. 2019 Number	Trough to Feb. 2019 Pct.	Pct. recovered
Ohio	**3/06**	**2/10**	**-450,300**	**-8.3%**	**591,400**	**11.8%**	**131.3%**
Excluding Columbus	3/06	2/10	-415,200	-9.2%	396,200	9.7%	95.4%
Akron	2/08	12/09	-28,700	-8.4%	26,300	8.4%	91.6%
Canton	11/07	2/10	-15,400	-8.9%	17,100	10.8%	111.0%
Cincinnati	1/08	2/10	-73,000	-6.9%	144,500	14.8%	197.9%
Cleveland	4/06	10/09	-93,100	-8.6%	93,900	9.5%	100.9%
Columbus	1/08	12/09	-53,100	-5.5%	198,100	21.7%	373.1%
Dayton*	3/06	12/09	-40,700	-10.2%	31,200	8.7%	76.7%
Lima*	2/06	6/10	-6,600	-11.4%	2,400	4.7%	36.4%
Mansfield*	3/06	3/10	-8,100	-13.6%	1,500	2.9%	18.5%
Springfield*	12/06	2/10	-5,000	-9.3%	1,700	3.5%	34.0%
Toledo*	1/06	6/09	-42,300	-13.2%	32,500	11.7%	76.8%
Weirton-Steubenville*	2/08	3/11	-5,500	-11.3%	-2,900	-6.7%	-52.7%
Youngstown*	1/06	11/09	-28,300	-11.6%	2,300	1.1%	8.1%
U.S.**	**1/08**	**2/10**	**-8,707**	**-6.3%**	**21,101**	**16.3%**	**242.3%**

*Employment was in decline prior to the recession. **Employment changes in thousands.
Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.

Canton, Cincinnati, Cleveland, and Columbus have more than made back their recession losses – Cleveland within the last year – as has Ohio. However, Ohio outside of Columbus has still not fully recovered its losses, nine years after employment growth resumed. A primary cause of this weakness is the smaller MSAs, which have fared substantially less well than the larger ones. Employment recovery has been especially modest in Mansfield and Youngstown, while Weirton-Steubenville has suffered a loss of 4,600 jobs (10.3 percent) since its seven-month upturn ended in October 2011.

Table 3 provides additional details regarding employment totals of each of the MSAs and performance during the expansion. Annual average employment totals are shown for 2010, 2017, and 2018, together with percentage changes in employment from 2010 through 2018 and 2017 through 2018. Cincinnati, Cleveland, and Columbus enjoyed employment gains over the last year greater than the state average. Several others matched Ohio's growth.

Columbus growth slowed markedly during 2018, however. This was the first year since 2007 in which central Ohio's employment change was less favorable than the national average. The 2019 Regionomics Columbus Economic Forecast argues that the primary reason for the slower growth is that the previous high employment growth has begun to exhaust the available supply of workers. The forecast is for employment growth of 1.2 percent in 2019, but that was based on an assumption that the March employment revision would be more positive than it turned out to be.[2] One implication of slower growth in the Columbus MSA is that the boost that the region's growth has given to statewide growth – as illustrated in Figure 2 – will be diminished. Ohio employment growth will thus be weaker, all else equal.

Table 3
Annual Employment and Employment Changes in Ohio, MSAs, and the U.S., 2010-2018

Area	Annual average employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Ohio	**5,035.9**	**5,525.8**	**5,559.9**	**10.4%**	**0.6%**
Excluding Columbus	4,115.6	4,440.4	4,460.4	8.4%	0.5%
Akron	317.6	340.9	340.1	7.1%	-0.2%
Canton	159.7	173.7	174.8	9.5%	0.6%
Cincinnati	981.7	1,094.8	1,108.4	12.9%	1.2%
Cleveland	990.9	1,058.7	1,067.4	7.7%	0.8%
Columbus	920.3	1,085.4	1,099.5	19.5%	1.3%
Dayton	360.7	388.3	390.0	8.1%	0.4%
Lima	51.6	53.3	53.1	2.9%	-0.4%
Mansfield	52.1	52.5	52.8	1.3%	0.6%
Springfield	49.8	50.3	50.0	0.4%	-0.6%
Toledo	282.0	307.8	309.8	9.9%	0.6%
Weirton-Steubenville	44.1	40.1	40.3	-8.6%	0.5%
Youngstown	220.0	219.9	219.7	-0.1%	-0.1%
United States	**130,362**	**146,624**	**149,074**	**14.4%**	**1.7%**

Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.

As mentioned earlier, the CES data include employment totals for industry sectors. The number of sectors and industries covered is greater for the state and for larger MSAs because of the greater reliability of the underlying estimates. The five tables at the end of the report provide industry sector employment changes for the United States in Table 4, Ohio in Table 5, Cincinnati in Table 6, Cleveland in Table 7, and Columbus in Table 8

While it is theoretically possible to construct these tables for all 12 MSAs, the problem is the rounding of the employment totals to the nearest hundred in the source and the small totals for most of the sectors in smaller MSAs (in addition to the still somewhat tentative nature of the estimates themselves). This rounding can produce misleading results. If a 10,000-job sector has a rounded employment gain of 100, the calculated increase is 0.7 percent, but even if the

[2] The forecast is posted at http://regionomicsllc.com/wp-content/uploads/2019/02/Columbus-Forecast-2019.pdf. (This website also includes an archive of these *On the Money* articles.) The January 9 Columbus Metropolitan Club forum releasing the forecast is available at https://www.youtube.com/watch?v=bgVVNl_oRFY&t=11s

rounded totals themselves are accurate, the actual increase can be as little as 0.1 percent or as much as 1.3 percent. Exploring the sector performance of these smaller MSAs can be more productively accomplished using the more precise, unrounded totals from the Quarterly Census of Employment and Wages. These will be released for 2018 in June. Accordingly, this release will be the subject of the August 2019 issue of *On the Money*.

Manufacturing's share of total Ohio employment is 48 percent greater than average, so it is a prime determinant of Ohio's employment growth relative to the national average. The concentration in Cincinnati and Cleveland is less than Ohio's but still above average; the concentration in Columbus is 22 percent less than average. Manufacturing growth in 2018 was roughly equal in Ohio and all three MSAs and slightly less than the 2.0 percent national average. Thus, manufacturing was not a large negative factor for the Ohio economy in 2018.

Education and health services is the largest or second largest sector in Ohio and the three MSAs. The education establishments included in this sector are solely private schools, colleges, universities and non-government educational support firms. Thus, education is only about 13 percent of the sector statewide. The 2018 Ohio employment growth of 0.9 percent was less than half the 2 percent national average. Columbus growth exceeded the national average at 2.7 percent, but growth was weak in Cincinnati and especially Cleveland. Despite the eminent hospitals and private universities in all three MSAs that attract patients and students from across the country and beyond, much of the sector serves a local market. The sector's growth is thus limited by local population growth, which is far less in Cincinnati and Cleveland than in Columbus.

Professional and business services employment includes professional offices, research and development, marketing, corporate administration, administrative support – including all temporary employment – and waste services. Ohio's 2018 growth of 0.6 percent was only one-quarter of the national average. Growth in each of the three MSAs was greater than the statewide average, but less than U.S. growth.

Government employment is generally much more stable than other sectors. Statewide growth was flat in 2018, and U.S. gains were also relatively small. Cincinnati employment, however, fell 0.9 percent, more than erasing its 2017 gain. This was mostly due to declines in state government jobs. Cleveland's 0.4 percent gain was driven by gains both at the federal and local level. The Columbus gains in 2018 and over the course of the expansion have been driven by the steady growth of state employment. The share of Ohio government employment in the Columbus MSA has risen substantially since the early 1990s.

U.S. retail employment was marginally lower in 2018 than in 2017, but Ohio employment declined 1.2 percent. Cleveland's employment decline was even worse at 1.7 percent, and Columbus was off 1.1 percent. Cincinnati's small gain was its seventh consecutive yearly gain, giving it by far the best growth of the three MSAs over the course of the expansion.

Leisure and hospitality includes arts, entertainment, recreation, hotels, restaurants, and other food services. Like healthcare, this is a sector that caters partly to local residents and partly to visitors. It has an especially important role in drawing visitors to Ohio, thereby attracting spending from elsewhere and increasing income, wealth, and jobs. Eight-year leisure employment growth in all three MSAs exceeded the statewide average. Cincinnati's growth in 2018 significantly exceeded Ohio growth and matched the U.S. average. However, growth in both Cleveland and Columbus cooled significantly from its earlier strong pace.

Table 4
U.S. Employment and Employment Changes by Sector, 2010-2018

Sector	Total employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Total employment	130,362	146,624	149,074	14.4%	1.7%
Construction and mining	6,223	7,645	8,021	28.9%	4.9%
Manufacturing	11,528	12,439	12,689	10.1%	2.0%
Wholesale trade	5,387	5,814	5,853	8.7%	0.7%
Retail trade	14,446	15,846	15,833	9.6%	-0.1%
Transportation and utilities	4,749	5,750	5,974	25.8%	3.9%
Information	2,707	2,814	2,828	4.5%	0.5%
Financial activities	7,695	8,451	8,569	11.4%	1.4%
Professional & business svcs.	16,783	20,508	20,999	25.1%	2.4%
Educational and health svcs.	19,975	23,188	23,667	18.5%	2.1%
Leisure and hospitality	13,049	16,051	16,348	25.3%	1.9%
Other services	5,331	5,770	5,845	9.6%	1.3%
Government	22,490	22,350	22,449	-0.2%	0.4%

Table 5
Ohio Employment and Employment Changes by Sector, 2010-2018

Sector	Total employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Total employment	5,035.9	5,525.8	5,559.9	10.4%	0.6%
Construction and mining	180.1	228.5	231.6	28.6%	1.4%
Manufacturing	621.4	687.1	698.9	12.5%	1.7%
Wholesale trade	212.3	230.8	235.0	10.7%	1.8%
Retail trade	551.9	570.0	563.2	2.0%	-1.2%
Transportation and utilities	180.8	220.7	226.1	25.1%	2.4%
Information	77.7	71.9	70.8	-8.9%	-1.5%
Financial activities	276.8	306.1	307.9	11.2%	0.6%
Professional & business svcs.	628.9	726.8	731.2	16.3%	0.6%
Educational and health svcs.	839.1	928.0	936.1	11.6%	0.9%
Leisure and hospitality	475.3	560.7	566.4	19.2%	1.0%
Other services	206.1	215.0	213.7	3.7%	-0.6%
Government	785.7	780.2	779.2	-0.8%	-0.1%

Table 6
Cincinnati MSA Employment and Employment Changes by Sector, 2010-2018

Sector	Total employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Total employment	981.7	1,094.8	1,108.4	12.9%	1.2%
Construction and mining	36.3	47.1	47.8	31.7%	1.5%
Manufacturing	103.1	116.6	118.7	15.1%	1.8%
Wholesale trade	54.5	59.2	59.6	9.4%	0.7%
Retail trade	101.6	109.0	109.2	7.5%	0.2%
Transportation and utilities	38.8	45.5	50.6	30.4%	11.2%
Information	14.1	13.9	14.0	-0.7%	0.7%
Financial activities	62.6	73.8	74.2	18.5%	0.5%
Professional & business svcs.	148.5	168.7	171.0	15.2%	1.4%
Educational and health svcs.	147.3	164.8	166.7	13.2%	1.2%
Leisure and hospitality	102.1	122.9	125.2	22.6%	1.9%
Other services	40.8	42.7	42.0	2.9%	-1.6%
Government	132.1	130.7	129.5	-2.0%	-0.9%

Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.

Table 7
Cleveland MSA Employment and Employment Changes by Sector, 2010-2018

Sector	Total employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Total employment	990.9	1,058.7	1,067.4	7.7%	0.8%
Construction and mining	31.6	36.6	38.6	22.2%	5.5%
Manufacturing	116.5	121.2	123.3	5.8%	1.7%
Wholesale trade	46.5	51.2	52.5	12.9%	2.5%
Retail trade	100.2	100.3	98.6	-1.6%	-1.7%
Transportation and utilities	29.3	30.6	31.0	5.8%	1.3%
Information	15.8	13.9	13.7	-13.3%	-1.4%
Financial activities	64.6	66.7	67.0	3.7%	0.4%
Professional & business svcs.	133.7	155.2	157.4	17.7%	1.4%
Educational and health svcs.	186.2	202.2	203.3	9.2%	0.5%
Leisure and hospitality	86.9	104.7	105.1	20.9%	0.4%
Other services	41.3	39.5	39.6	-4.1%	0.3%
Government	138.5	136.6	137.2	-0.9%	0.4%

Table 8
Columbus MSA Employment and Employment Changes by Sector, 2010-2018

Sector	Total employment (thousands)			Percentage change	
	2010	2017	2018	2010-2018	2017-2018
Total employment	920.3	1,085.4	1,099.5	19.5%	1.3%
Construction and mining	28.5	39.9	41.7	46.3%	4.5%
Manufacturing	65.0	72.3	73.5	13.1%	1.7%
Wholesale trade	37.1	40.9	41.5	11.9%	1.5%
Retail trade	97.7	103.6	102.5	4.9%	-1.1%
Transportation and utilities	43.2	62.6	63.4	46.8%	1.3%
Information	16.8	17.4	17.4	3.6%	0.0%
Financial activities	69.3	84.9	86.1	24.2%	1.4%
Professional & business svcs.	146.8	180.0	181.7	23.8%	0.9%
Educational and health svcs.	126.7	161.4	165.7	30.8%	2.7%
Leisure and hospitality	87.3	106.5	107.9	23.6%	1.3%
Other services	36.0	41.1	41.6	15.6%	1.2%
Government	165.9	174.8	176.3	6.3%	0.9%

Source: Current Employment Statistics, U.S. Bureau of Labor Statistics.