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Professional and Business Services in Ohio

Summary

This article includes an analysis of professional and business services employment growth both statewide and regionally. The professional and business services sector provides 725,000 jobs in Ohio, 13.5 percent of total employment and more than any other primary sector except education and healthcare.

Ohio growth tracked the national average closely until 2015, and then slowed significantly. Ohio employment growth averaged 3.2 percent per year between 2010 and 2014, but only 0.7 percent per year subsequently. U.S. growth over the seven-year period was 26 percent, but Ohio's growth was only 16 percent.

Of the three subsectors, only management of companies and enterprises achieved growth surpassing the national average, and that feat was achieved only because of a one-year gain of 12.5 percent in 2012. This strength offset the weakness of the professional and technical subsector between 2010 and 2014, while administrative and waste services achieved average growth. The weakness after 2014 was spread broadly across the sector.

Concentration analysis reveals that statewide employment in the total sector is close to average, but this is due to a very high concentration of employment in headquarters and managing offices – 67 percent above average.

Examination of employment trends at the regional level reveals that the slowdown in growth over the most recent three years has been widespread, with a majority of the 13 regions of the state suffering negative growth in 2017.

Subsector detail for the state's six large MSAs shows that the recent slowdown in growth has been caused by weakness in one or two of the subsectors. In most cases, this was administrative and waste services. Professional and technical services were an additional contributor to the slow growth in 2017.

Introduction

The August 10, 2018, issue of *On the Money* (Vol. 132, No. 39) discussed Ohio's employment growth by industry sector. That analysis showed a troubling slowdown in the growth of professional and business services, a crucial component of the state's economy. Given that fact and given that the last review of professional and business services was exactly four years ago

(October 10, 2014, Vol. 130, No. 43) it is time for an update. This article provides an analysis of employment growth in professional and business services both statewide and regionally.

The professional and business services sector employs 725,000 Ohioans, 13.5 percent of total employment and more than any other primary sector except education and healthcare. Professional and business services is composed of three primary subsectors:

- Professional and technical services: non-medical professional offices, research, development, consulting, computer, and marketing services. Total employment is 258,200 jobs, or 35.6 percent of the total
- Management of companies and enterprises: business headquarters and division managing offices. This subsector has no component industry groups and includes managing offices of all types of businesses. Employment is 142,000, 19.6 percent of the sector total.
- Administrative, support, and waste services: support services for businesses, facilities, and dwellings; employment services, including **all** temporary employment regardless of where the worker is based; and waste collection, remediation, and recycling services. Employment represents 324,500, 44.8 percent of the total.

Statewide Trends

Figure 1 compares professional and business services growth at the state and national level. Figures 2, 3, and 4 provide a growth comparison of each of the three primary subsectors. The charts begin in 2010, the year that employment growth resumed after the recession. They are on an index basis, so they compare the state's cumulative employment growth since 2010 with the national average growth. As Figure 1 shows, professional and business services growth tracked the national average closely until 2015, when the trend broke. As will be discussed later in the article, employment growth in the overall sector averaged 3.2 percent per year between 2010 and 2014, but only 0.7 percent per year subsequently. U.S. growth over the seven-year period was 26 percent, but Ohio's growth was only 16 percent.

Figure 2 charts comparative growth in professional and technical services, which has lagged for virtually the entire expansion. Overall, Ohio employment growth has been a meager 8.4 percent, compared to a national average of 20.5 percent. As shown in Figure 3, the story is better in the company and enterprise management segment, thanks largely to a one-year gain of 14,200 jobs (12.5 percent) in 2012. It is always difficult to identify the specific cause of a large increase, but contributing to the gain was Omicare, which moved 500 jobs to Cincinnati from Covington, Kentucky (a gain for Ohio but not the Cincinnati MSA) and the return of Wendy's International jobs from Atlanta to Dublin. These jobs account for only a small fraction of the total, but that is typical. Generally, job creation by existing companies accounts for more than 80 percent of total job growth; this growth is less obvious than a new entrant. Aside from 2012, growth in this subsector has also been less than average. However, the total seven-year gain was 31.5 percent in Ohio, compared to 23 percent nationally.

The large administrative and waste services subsector's trend has mirrored that of the total sector: growth comparable to the national average through 2014, and significantly less beginning in 2015. Here the Ohio gain was 16.6 percent and the U.S. gain was 22.5 percent.

Figure 1
Professional and Business Services Employment Growth, Ohio and the U.S., 2010-2017

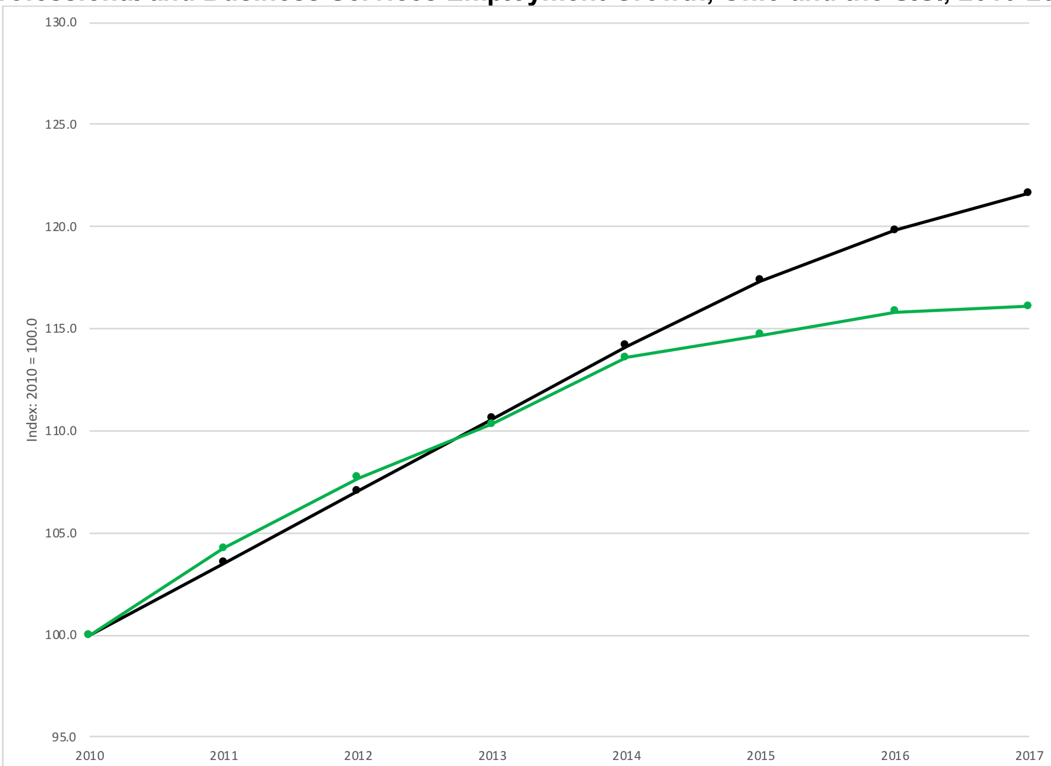
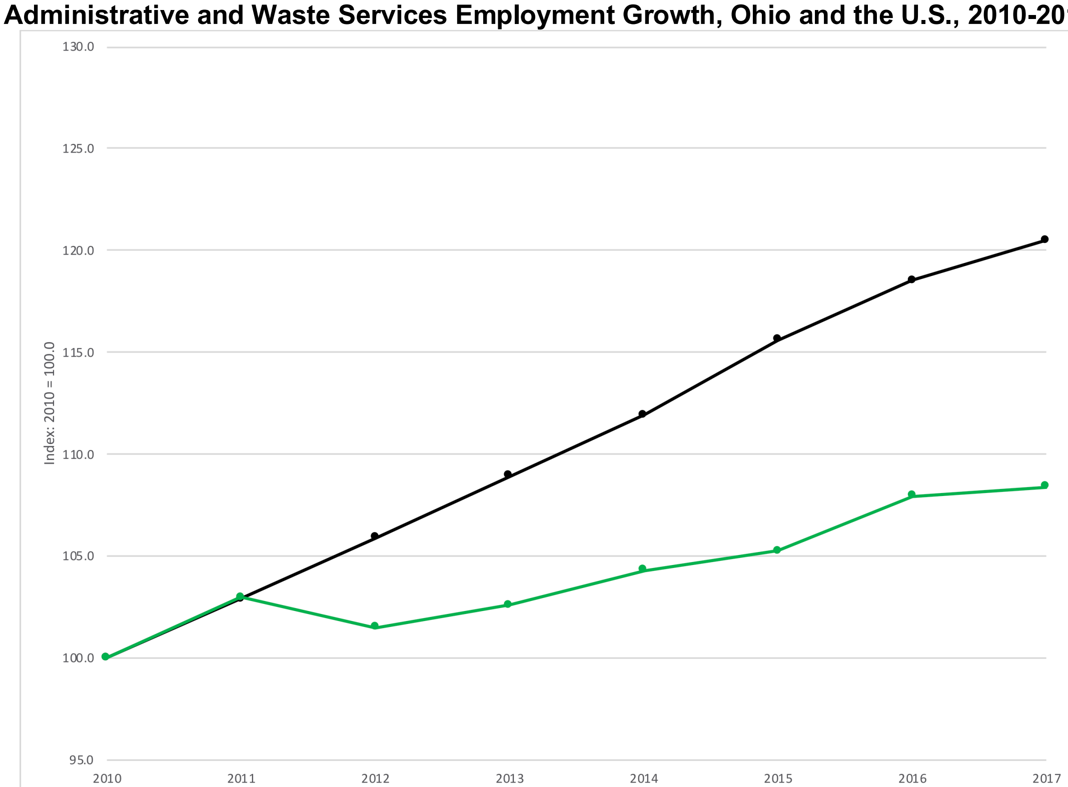


Figure 2
Administrative and Waste Services Employment Growth, Ohio and the U.S., 2010-2017



Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

Figure 3
Management of Companies and Enterprises Employment Growth, Ohio and the U.S., 2010-2017

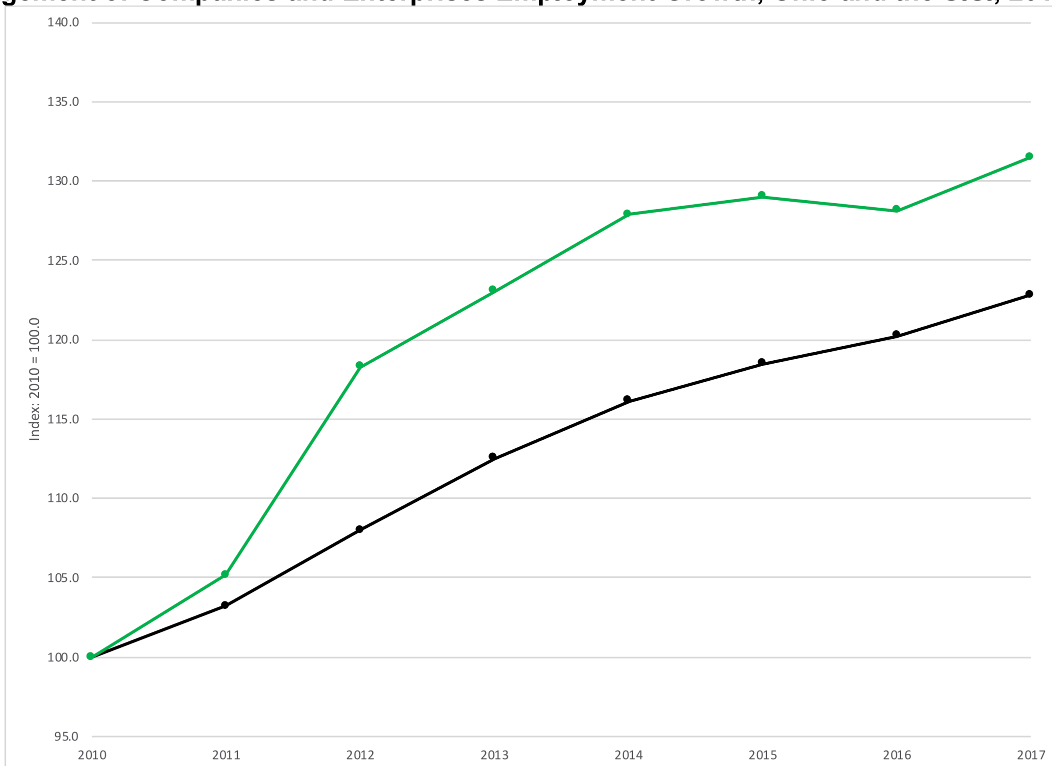
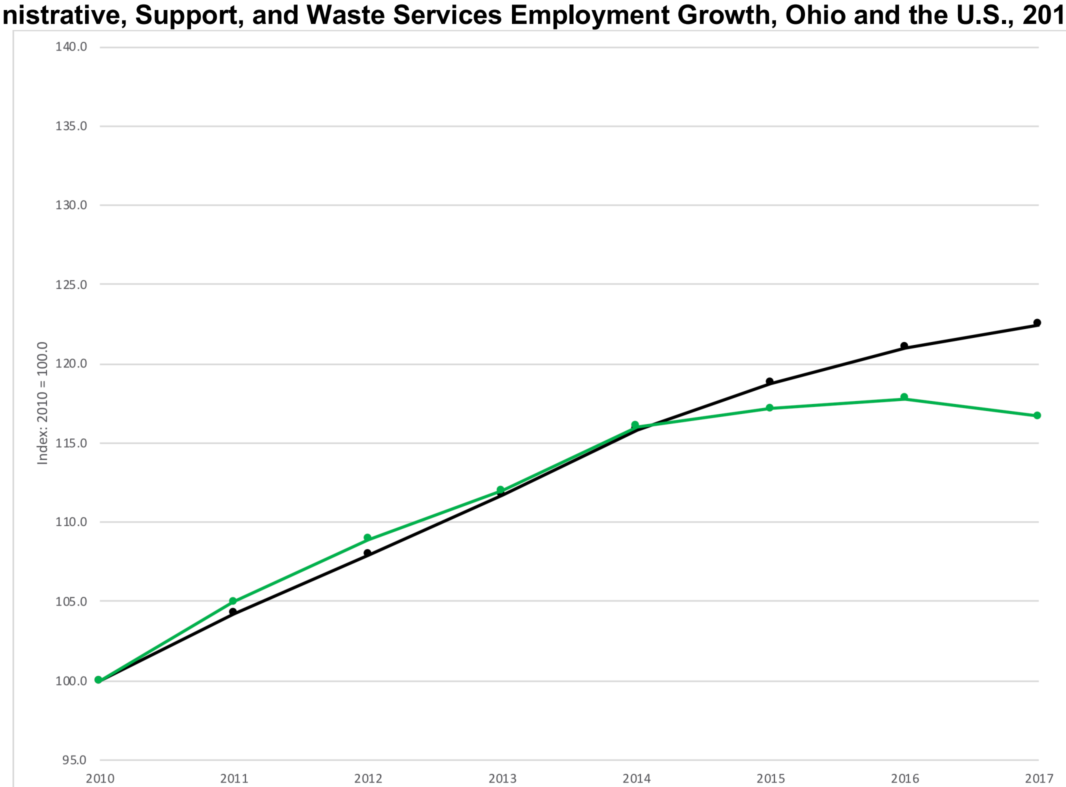


Figure 4
Administrative, Support, and Waste Services Employment Growth, Ohio and the U.S., 2010-2017



Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

Table 1 presents an analysis of statewide business and professional services employment growth by detailed industry. Acknowledging the 2014 trend break in Figure 1, the growth rates are presented (as annualized averages) for the periods of stronger growth, 2010-2014, and weaker growth, 2014-2017. This table accomplishes several additional tasks. It details the composition of the three subsectors discussed above. It points out the individual industries in the professional and business services sector that significantly outperformed or underperformed

Table 1
Employment and Annualized Average Employment Growth in Professional and Business Service Industries

Industry	Empl. 2017	Annualized avg. chng. 2010-14		Annualized avg. chng. 2014-17		Loc. quotient
		Ohio	U.S.	Ohio	U.S.	
Professional and business services	**724,577**	**3.2%**	**3.4%**	**0.7%**	**2.1%**	**0.96**
Professional and technical services	**258,170**	**1.1%**	**2.9%**	**1.3%**	**2.5%**	**0.77**
Legal services	32,018	-1.3%	0.1%	-1.0%	0.4%	0.76
Accounting and bookkeeping services	30,853	-0.3%	2.1%	0.0%	1.2%	0.83
Architectural and engineering services	42,082	1.7%	1.8%	1.3%	1.4%	0.79
Specialized design services	6,914	4.5%	2.9%	1.4%	3.5%	1.32
Computer systems design and related services	61,407	1.3%	5.4%	3.0%	4.6%	0.80
Management & tech. consulting svcs.	30,874	5.3%	5.1%	2.0%	4.2%	0.59
Scientific research & development svcs.	17,141	2.1%	0.6%	0.7%	1.0%	0.70
Advertising, PR, and related services	13,926	-1.6%	3.9%	1.6%	1.1%	0.76
Other professional and technical svcs.	23,095	0.1%	2.3%	1.6%	3.7%	0.88
Marketing research and public opinion polling	3,961	-5.3%	-0.1%	-4.9%	-3.1%	1.16
Photographic services	1,946	-6.7%	-4.8%	-5.7%	-2.7%	1.00
Translation and interpretation services	1,196	16.4%	8.0%	7.2%	8.7%	0.87
Veterinary services	14,018	2.5%	2.6%	4.0%	4.5%	1.01
All other professional & technical svcs.	1,974	6.6%	7.2%	5.7%	8.2%	0.35
Mgt. of companies and enterprises	**141,950**	**6.3%**	**3.8%**	**0.9%**	**1.9%**	**1.67**
Admin. support and waste services	**324,457**	**3.8%**	**3.7%**	**0.2%**	**1.9%**	**0.96**
Office administrative services	20,367	6.3%	3.1%	1.9%	3.3%	1.07
Facilities support services	3,961	0.4%	-0.2%	8.6%	3.3%	0.72
Employment services	137,827	5.6%	5.8%	-0.7%	1.3%	1.04
Business support services	35,064	0.3%	2.1%	-2.3%	1.0%	1.04
Travel arrangement & reservation svcs.	3,471	-1.7%	1.0%	2.1%	3.8%	0.42
Investigation and security services	24,016	2.6%	2.4%	-0.1%	2.5%	0.70
Services to buildings and dwellings	72,380	3.2%	3.0%	1.7%	2.4%	0.93
Other support services	10,789	-0.4%	2.1%	0.5%	1.7%	0.92
Packaging and labeling services	2,256	-5.0%	0.4%	-2.2%	3.5%	1.05
Convention & trade show organizers	869	0.1%	4.4%	-1.1%	3.7%	0.42
All other support services	7,664	1.3%	2.1%	1.5%	0.7%	1.02
Waste collection	5,717	3.4%	3.5%	2.9%	3.2%	0.88
Waste treatment and disposal	4,827	-0.9%	-0.6%	3.6%	1.1%	1.34
Remediation and other waste services	6,072	10.3%	2.3%	1.7%	2.5%	1.14
Remediation services	3,829	12.1%	0.5%	1.9%	2.2%	1.24
Materials recovery facilities	571	33.0%	9.0%	3.2%	0.4%	0.87
All other waste management services	1,671	3.2%	3.7%	0.5%	4.0%	1.04

Indented industry titles are subsets of the industry above. Green-shaded cells indicate Ohio growth at least 40% higher than the national average; pink-shaded cells indicate Ohio growth at least 40% less than average.
Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

the U.S. average. The Ohio growth rates in cells shaded green are at least 40 percent faster than the national average; the growth rates in cells shaded pink are at least 40 percent slower. The last column in Table 1 displays the industry's location quotient, a measure of relative concentration. It is calculated as the percentage of total employment represented by the specific industry in Ohio divided by the percentage of total employment in that industry nationwide. Thus, a location quotient greater than one indicates that the industry is more concentrated than average in Ohio – equivalently, that the industry's Ohio employment is greater than one would expect.

It is apparent that the strength of the management of companies subsector between 2010 and 2014 offset the weakness of the professional and technical subsector. Together with an administrative support subsector growing at an average rate, this resulted in the overall sector's average growth. Even during this time, though, the number of pink-shaded cells indicates that there were quite a few industries suffering very slow growth or decline, in both professional and technical services and administrative and waste services. The support that the company management segment provided to the sector vanished after 2014 and the administrative and waste services segment also slowed – largely because of a decline in the large employment services (i.e., temporary employment) industry. This led to the slow growth of the overall professional and business services sector.

The notable finding from the location quotient analysis is the high concentration of company management employment. Employment in headquarters operations is 67 percent higher than would be expected. This is a very high concentration even in a local area – all the more so for an entire state.

Most industries in the professional and technical subsector have below average employment. The big exceptions are specialized design services (location quotient of 1.32) and marketing research (1.16). Photographic and veterinary services have average concentrations. In contrast, a number of industries in the administrative and waste services are approximately average. The standouts here are waste treatment and disposal (1.34) and remediation services (1.24). This industry grew 12 percent per year until 2014. Growth settled down afterward, but remained relatively close to the national average. As a result, employment growth between 2010 and 2017 totaled 1,541 (67 percent) and the location quotient increased from 0.78 to its current 1.24.

Regional Trends

As regular readers of these articles are well aware, Ohio's economy consists of a number of distinct urban and rural regional economies, each with different economic characteristics and significantly different economic performance. Thus, this survey of Ohio's employment growth must also examine the pace of growth at a regional level. Figure 5 maps the 13 regions that have been repeatedly featured in these articles – the six largest Metropolitan Statistical Areas (MSAs) and seven other regions including smaller MSAs and rural areas.

Figure 5
Ohio Regions

Northwest | Toledo MSA | West North Central | Cleveland MSA | Akron MSA
Northeast | West | Columbus MSA | East North Central | Dayton MSA
Cincinnati MSA | South | Southeast

Table 2 presents total professional and business service employment in each of these 13 regions, together with the location quotient and the annual average employment change between 2010 and 2014, 2014 and 2017, and 2016 and 2017. The detailed analysis in Table 1 is infeasible at the regional level, however. Employment totals in the Quarterly Census of Employment and Wages from which these statistics are drawn are suppressed by law in cases that would result in individual firms' employment being disclosed. This suppression is widespread even at the subsector level, mostly because the management of companies and enterprises subsector often includes few such establishments. This results not only in the suppression of that total but also of one of the other subsectors so that the management of companies total cannot be derived by subtraction.

Table 2
Professional and Business Service Employment, Concentration, and Growth in Ohio Regions

Area	Employmt. 2017	Location quotient	Annualized average percentage changes 2010-2014	2014-2017	2016-2017
United States	**20,326,689**	**1.000**	**3.4%**	**2.1%**	**1.5%**
Ohio	**724,577**	**0.956**	**3.2%**	**0.7%**	**0.2%**
Large MSAs	**582,379**	**1.074**	**2.8%**	**0.8%**	**0.3%**
Akron MSA	50,385	1.110	1.6%	0.7%	-0.9%
Cincinnati MSA*	132,756	1.135	2.1%	-0.1%	-0.9%
Cleveland MSA	146,381	1.027	3.0%	1.3%	3.1%
Columbus MSA	170,225	1.182	4.2%	0.8%	-0.1%
Dayton MSA	47,595	0.911	1.3%	1.3%	-0.1%
Toledo MSA	35,037	0.848	2.6%	1.1%	-1.7%
Small MSAs and rural	**101,780**	**0.511**	**2.7%**	**-0.2%**	**-0.8%**
Northwest	3,242	0.319	5.9%	-1.7%	-1.0%
West North Central	13,105	0.432	-0.7%	1.8%	-0.8%
East North Central	6,586	0.401	0.9%	-1.4%	-1.4%
Northeast	39,252	0.617	2.8%	-1.5%	0.0%
West	22,192	0.557	5.3%	-1.0%	-4.3%
South	9,740	0.469	5.6%	5.2%	5.4%
Southeast	7,663	0.427	3.6%	1.6%	-0.7%

*Ohio portion only.
Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics.

As the location quotients in Table 2 make clear, professional and business services employment is focused in the largest MSAs. Only Akron, Cincinnati, Cleveland, and Columbus have location quotients greater than one, and many of the small MSA/rural regions' employment is less than half the level that would be expected in regions of their size. Large urban areas offer the concentration of business activity that provides a base for the development of business service firms. The strongest concentrations are in the Columbus and Cincinnati MSAs, but the Cincinnati statistics reflect only the four Ohio counties of the 15-county MSA. The location quotient would likely be somewhat less if the less-urbanized counties in Kentucky and Indiana were included.

Economic performance varies widely among the regions, but the slowdown in growth over the most recent three years has been widespread. Five regions exceeded U.S. and Ohio average growth in the early years of the expansion: the Columbus MSA and the Northwest, West, South, and Southeast regions. The Cleveland MSA was not far behind. In contrast, only the South region beat the national average during the 2014-2017 period. Declines were common among the small MSA/rural regions. Negative growth was even more common last year. The Cleveland MSA staged a solid comeback in 2017, however, and the consistent growth of the South region has been notable.

It is possible to develop employment estimates at the subsector level for the six large MSAs. This may provide further insight into the reasons for the weakness in the overall sector. While subsector employment is suppressed for some of the small counties in these MSAs, they are each dominated by a single large county with the majority of total employment and fully reported subsector estimates. Thus, even rough estimates for subsector employment in some of the outlying counties will not cause total regional employment to go too far astray.

Results are in Table 3. Generally speaking, the recent slowdown in growth has been caused by weak growth in one or two of the subsectors. In most cases, this was administration and waste. (Recall that temporary employment is a major part of this subsector.) Last year's weakness in many of the MSAs was additionally due to weakness in professional and technical services. (Dayton, however, enjoyed growth more than twice the national average.) Cleveland's above-average growth in 2017 was due solely to strength in the management of companies and enterprises subsector.

Table 2
Professional and Business Service Employment, Concentration, and Growth in Ohio Regions

Area	Employmt. 2017	Location quotient	Annualized average percentage changes		
			2010-2014	2014-2017	2016-2017
United States					
Professional & technical	8,987,648	1.000	2.9%	2.5%	1.7%
Mgt. of companies	2,277,625	1.000	3.8%	1.9%	2.1%
Administration & waste	9,061,417	1.000	3.7%	1.9%	1.2%
Ohio					
Professional & technical	258,170	0.770	1.1%	1.3%	0.4%
Mgt. of companies	141,950	1.671	6.3%	0.9%	2.6%
Administration & waste	324,457	0.960	3.8%	0.2%	-1.0%
Akron					
Professional & technical	14,985	0.747	1.4%	0.5%	-2.7%
Mgt. of companies	16,401	3.225	4.3%	-0.3%	-1.4%
Administration & waste	19,008	0.939	-0.4%	1.8%	1.1%
Cincinnati*					
Professional & technical	48,689	0.942	1.8%	1.2%	0.2%
Mgt. of companies	33,926	2.589	2.2%	-2.4%	-2.6%
Administration & waste	50,184	0.963	2.3%	0.3%	-0.6%
Cleveland					
Professional & technical	54,245	0.861	1.7%	1.0%	0.4%
Mgt. of companies	29,907	1.873	5.9%	3.6%	14.6%
Administration & waste	62,156	0.978	3.0%	0.4%	0.5%
Columbus					
Professional & technical	59,243	0.931	-1.7%	1.6%	1.5%
Mgt. of companies	37,078	2.298	14.8%	1.7%	2.0%
Administration & waste	73,964	1.152	5.4%	-0.3%	-2.4%
Dayton					
Professional & technical	22,222	0.962	0.7%	2.1%	4.2%
Mgt. of companies	5,098	0.871	0.1%	2.3%	0.7%
Administration & waste	20,302	0.872	2.3%	0.3%	-4.4%
Toledo					
Professional & technical	10,771	0.589	1.0%	-1.7%	-2.8%
Mgt. of companies	6,528	1.410	1.7%	11.8%	3.7%
Administration & waste	17,759	0.964	4.0%	-0.2%	-2.8%

*Ohio portion only.
Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics, including Regionomics estimates.