

# Commercial: Another Slumping Market?

The good news for commercial real estate on the national level is that it is not expected to experience the magnitude of slump present in the housing market. Nevertheless, fallout from the subprime mortgage crisis tightened credit and subdued confidence in both investors and lenders. Investment in commercial real estate in 2008 is forecast to be as much as 40% lower compared to 2007.<sup>1</sup>

The office vacancy rate in the nation is expected to climb from 12.5% in 2007 to 13.3% in 2008 according to a forecast from REALTORS® Commercial Alliance which assumes that economic activity in the nation slows but does not fall into recession. At the same time, growth in rent is expected to slow from 8.0% in 2007 to 3.5% in 2008.<sup>2</sup> These forecasts are based on the assumption that office employment—workers who use office space and who thus drive the demand for office space—is going to increase in 2008. If office employment declines in Ohio or in some of its metro areas, vacancy rates may experience even larger increases in those regions.

The industrial vacancy rate in the nation is also expected to increase this year, from 9.4% in 2007 to 9.6% in 2008, and growth in rent is expected to slow slightly based upon the assumption of growth in industrial employment.<sup>3</sup> Ohio has struggled over the past several years with declines in manufacturing jobs, a major contributor to industrial employment. Further declines in the state and metropolitan areas' (MSAs) manufacturing sectors

could translate into compounded struggles in industrial real estate. This article examines both office and industrial employment in Ohio and its six largest metro areas. Employment forecasts point to a rocky road.

## Office Employment

One method to assess the future health of an office market is to forecast the demand for space based on industry employment growth which is then compared to the amount of new office space added within a region. Office employment is defined here based on the occupations that primarily use office space.<sup>4</sup> By assuming that the average office worker occupies 280 square feet, the gap between supply and demand can be measured. In addition, the amount of office space under construction together with forecast office employment provides insight into the future direction of vacancy rates and rental prices.

In Ohio, office employment contracted in the two years following the last recession. In 2002 alone, the office employment decline of 1.9% (a loss of 32,000 workers) was associated with a reduced need for 9.0 million square feet of office space.<sup>5</sup> From 2004 forward, however, office

<sup>1</sup> Commercial Real Estate Outlook, REALTORS® Commercial Alliance, March 2008.

<sup>2</sup> Ibid. Rent growth refers to the year-over-year change in average gross rent based on a per square foot cost.

<sup>3</sup> Ibid.

<sup>4</sup> Office occupations represent 27 of the 96 minor occupation groups identified by the U.S. Department of Labor.

<sup>5</sup> Office space calculation assumes an average 280 square feet used per worker.

## Office Employment: Annual Average Change

MSA/State	2002	2003	2004	2005	2006	2007*	AVG	Forecast	
								2008	2009
<b>Akron</b>	3.2%	1.3%	1.7%	2.7%	1.0%	0.4%	1.8%	1.7%	1.9%
<b>Cincinnati</b>	-1.3%	0.0%	-0.4%	1.0%	0.9%	1.0%	0.1%	-0.2%	0.3%
<b>Cleveland</b>	-2.8%	-0.5%	-0.5%	0.2%	0.2%	-0.3%	-0.7%	-2.1%	-0.9%
<b>Columbus</b>	-1.0%	-0.6%	1.2%	1.2%	0.9%	1.4%	0.4%	0.9%	1.6%
<b>Dayton</b>	-1.8%	-1.4%	-0.9%	-0.3%	-0.5%	-0.7%	-0.9%	-1.6%	-0.5%
<b>Toledo</b>	-2.2%	-1.1%	0.8%	0.2%	0.8%	-1.9%	-0.5%	-0.5%	0.1%
<b>Ohio</b>	-1.9%	-0.9%	0.1%	0.7%	0.6%	0.4%	-0.2%	-0.6%	0.3%

\*2007 based on the first two quarters of data.

Source: Bureau of Labor Statistics and Chmura Economics & Analytics

employment growth has been averaging an annualized 0.5% in Ohio, replenishing the demand for office space. Nevertheless, the more recent levels of office employment in Ohio are still below the number of office workers averaged during 2001.

Demand for office space has been mixed among the largest metros in Ohio. Akron was the only metro area with steady office employment growth from 2002 through the first half of 2007, averaging 1.8% annualized growth over that period. Columbus was the next-best performing metro over the period, with declining office employment in the two years following the last recession but expanding since. Over the five-and-a-half-year period shown here, Columbus averaged 0.4% office employment growth. While Cincinnati posted 0.9% to 1.0% office employment growth the last two-and-a-half years, the metro area failed to record employment growth over the three years following the last recession. For the entire five-and-a-half-year period, the Cincinnati metro managed only 0.1% annualized growth in office employment.

The remaining metro areas of Cleveland, Dayton, and Toledo averaged contractions in office employment over this period. Dayton fared the poorest with office employment contractions each year from 2002 through 2007. Cleveland managed modest 0.2% growth in 2005 and 2006, but suffered through a 2.8% drop in 2002 following the last recession, the largest decline among the metro areas during any of the years examined here. Toledo posted office employment growth from 2004 through 2006, but was off to a poor start in 2007 with a 1.9% annualized decline through the first half of the year.

Office employment is expected to contract 0.6% in Ohio in 2008 before growing 0.3% in 2009. Among the six largest metro areas in the state, only Akron and Columbus are expected to see office employment growth in 2008. By 2009, office employment is expected to pick up in Cincinnati and Toledo, but still struggle in Cleveland and Dayton. Translating office employment and forecast growth into square footage of office space, demand for office space will drop 2.8 million square feet in 2008 before gaining about half of the decline back in 2009.<sup>6</sup>

## Increased Demand for Office Space from the Prior Year

(Square Footage in Thousands)

MSA/State	2008	2009
<b>Akron</b>	527	598
<b>Cincinnati</b>	(179)	213
<b>Cleveland</b>	(2,072)	(889)
<b>Columbus</b>	805	1,438
<b>Dayton</b>	(548)	(163)
<b>Toledo</b>	(119)	34
<b>Ohio</b>	(2,836)	1,387

Source: Chmura Economics & Analytics

## Industrial Employment

Industrial employment is defined as those occupations that primarily are employed in industrial property space.<sup>7</sup> How and where employment in these groups expands or contracts will largely influence the demand for industrial space. Factors besides employment also play into the demand for industrial space. For example, industrial employment contractions because of increased productivity may in fact result in an increased demand for industrial space if additional machinery such as robotics requires more space. For that reason, the changes in industrial employment noted here do not correlate as strongly to the need for industrial space as office employment does to the demand for office space.

Industrial employment contracted 5.4% in Ohio in the year immediately following the last recession. The rate of decline has been slower since, but industrial employment has remained in decline since with the pace of decline accelerating in 2006 and the first half of 2007. Much of the decline in industrial employment can be associated with job losses in manufacturing industries. Over the six years ending with the second quarter of 2007, manufacturing employment dropped about 20% in Ohio, equivalent to a loss of 192,000 jobs.

Over the last five-and-a-half years, the hardest hit of the large metro areas in Ohio were Dayton (3.9% annualized average decline), Cleveland (-2.4%), and Toledo (-2.2%).

<sup>6</sup> It is assumed that the average office occupation requires 280 square feet of space per worker.

<sup>7</sup> Industrial occupations are representing 15 of the 96 minor occupation groups identified by the U.S. Department of Labor.

## Industrial Employment: Annual Average Change

MSA/State	2002	2003	2004	2005	2006	2007*	AVG	Forecast	
								2008	2009
<b>Akron</b>	-8.1%	-1.6%	1.8%	2.2%	-1.9%	-1.0%	-1.5%	0.7%	0.9%
<b>Cincinnati</b>	-4.2%	-0.8%	-0.4%	-0.6%	-1.1%	-0.4%	-1.3%	-1.4%	-0.9%
<b>Cleveland</b>	-7.4%	-3.3%	-1.2%	-0.1%	-0.6%	-1.7%	-2.4%	-2.7%	-1.5%
<b>Columbus</b>	-3.7%	-1.6%	-0.5%	-0.6%	0.9%	0.4%	-1.0%	-0.3%	0.4%
<b>Dayton</b>	-5.2%	-4.9%	-3.9%	-2.7%	-2.8%	-4.3%	-3.9%	-4.1%	-3.0%
<b>Toledo</b>	-4.3%	-3.0%	-0.7%	-0.5%	-1.7%	-3.4%	-2.2%	-2.0%	-1.4%
<b>Ohio</b>	-5.4%	-2.9%	-1.1%	-0.3%	-1.0%	-1.8%	-2.1%	-1.9%	-1.0%

\*2007 based on the first two quarters of data.

Source: Bureau of Labor Statistics and Chmura Economics & Analytics

Though Akron posted industrial employment gains in 2004 and 2005, the region shed 8.1% in 2002, bringing its average to an annualized 1.5% decrease during this period. Cincinnati averaged a 1.3% annualized decline over this period and Columbus averaged a 1.0% annualized drop though posting growth in 2006 and the first half of 2007.

Industrial employment is forecast to continue to struggle over the coming two years. In Ohio, industrial employment is forecast to fall 1.9% in 2007 and 1.0% further in 2008. By metro area, only Akron is expected to see growth both years with a 0.7% advance in 2008 and 0.9% in 2009. Columbus is forecast to be about flat from beginning to end, dropping 0.3% in 2008 but rebounding with 0.4% growth in 2009. The remaining metros are forecast to see industrial employment declines in both years. Dayton has the gloomiest forecast, declines of 4.1% in 2008 and 3.0% in 2009.

### Geographic Trends

It is old news that office space has generally been moving out of central business districts and into suburbs or beyond. Nevertheless, the nature of this transition and what the future may hold are matters for research and further exploration.

In a case study of Virginia's metropolitan areas,<sup>8</sup> Dr. Xiaobing Shuai investigated the relationship of population growth and economic growth of center cities and their suburbs. His study supported the "jobs-follow-people" hypothesis in regional development by showing that the population growth of cities and suburbs strongly influence their employment growth. The research further showed that city population growth is particularly

important as it also influences suburban employment growth because population that migrates from the center city, for example, is an important source for population growth for the suburbs.

In terms of employment, however, Dr. Shuai concluded that "Virginia's center cities are no longer the engines of growth of metropolitan areas. The job growth of center cities lags behind suburbs, and has no significant effect on suburban employment growth. However, the causality test indicates that suburban economy is on the verge of becoming the leader of city economy. This is a significant paradigm shift in regional economic development." Indeed, as shown in the regional profiles of this publication, in each of the six largest metros in Ohio without exception, the central county of the metro area had slower employment growth than the metro overall (based on the year ending with the second quarter of 2007).

Another study characterized office space developments outside of the central business district. It had been previously argued that most office space outside of downtowns was grouped in large, mixed-use clusters known as edge cities.<sup>9</sup> In a 2006 study,<sup>10</sup> researchers explored the dominance of "edgeless cities"—which are defined as small and scattered commercial development. In the researcher's survey,<sup>11</sup> edgeless cities accounted for almost 40% of office space, downtowns for almost 33%, and edge cities with a little over 14%. The authors described

<sup>8</sup> "Are Center Cities the Engines of Growth for their Suburbs?—Evidence from Virginia's Metropolitan Areas," Xiaobing Shuai, Ph.D., Business Economics, October 2005. Available at: [http://www.chmuraecon.com/pdfs/nabe\\_05\\_shuai.pdf](http://www.chmuraecon.com/pdfs/nabe_05_shuai.pdf).

<sup>9</sup> Edge cities can be described as a cluster outside of the central business district of at least five million square feet of office space.

<sup>10</sup> "Beyond Edgeless Cities: Office Geography in the New Metropolis," Robert E. Lang et al, Virginia Tech, June 2006, National Center for Real Estate Research.

<sup>11</sup> The survey sample was composed of 13 large metropolitan areas in the United States.

the new metropolis they observed as, “mostly low-to-mid density, automobile dependent, and dispersed. It may have large-scale Edge Cities..., but more often it contains smaller and more sprawling Edgeless Cities....”

In the table presented here, Chmura examines some of the geographic trends within the Ohio MSAs. In each case, a “center” of the MSA is defined. These “centers” are not defined for apples-to-apples comparisons between the metro areas, but rather to give a reasonable reference area for each individual MSA.

### Migration Trends: Percent of MSA Employment in the MSA Center

MSA	MSA Center	Office		Industrial	
		2001	2006	2001	2006
Akron	Summit County	85%	86%	80%	79%
Cincinnati	Hamilton County	74%	68%	66%	61%
Cleveland	Cuyahoga County	78%	77%	67%	65%
Columbus	Franklin County	83%	79%	72%	70%
Dayton	Montgomery County	75%	72%	74%	71%
Toledo	Lucas County	75%	75%	60%	59%
Total		78%	76%	69%	67%

Source: Bureau of Labor Statistics and Chmura Economics & Analytics

As individuals with occupations that work in offices and industrial settings shift within metro areas, so will office and industrial space. One might expect that trends of space dispersion or sprawl would be exhibited in these metro areas—and indeed, in general, that is what the data show. Overall, between 2001 and 2006, the percentage of office and industrial employment in the largest Ohio MSAs decreased in the metro centers and increased in the outlying portions. On average, this migration only measured a couple percentage points difference: the proportion of office employment in the metro centers declined from 78% to 76% over these five years and the proportion of industrial employment declined from 69% to 67%.

Of the six metro areas, Cincinnati has the smallest percentage of office employment located within its central county. Cincinnati also saw the largest declines in the concentration of both office and industrial employment

in its central county. From 2001 to 2006, the percentage of the metro area’s office employment in Hamilton County declined from 74% to 68%. Over the same period, industrial employment in Hamilton dropped from 66% to 61%. Butler County and Warren County, two Cincinnati metro counties nestled between the Cincinnati and Dayton central counties, saw impressive overall job growth from 2001 through 2006. Over this five-year period, Butler County employment increased 14% and employment in Warren rose 23%, including a whopping 38% increase in Warren County office employment. Warren’s largest private employers include Anthem and Proctor & Gamble.

Cleveland, Columbus, and Dayton were in the middle of the pack in migration trends over these five years. Office employment concentration decreased in the central counties 0.4 percentage points in Columbus, 0.3 points in Dayton, and 0.1 point in Cleveland. Industrial employment, meanwhile, declined in the central counties 0.3 points in Dayton and 0.2 points in both Cleveland and Columbus.

Akron and Toledo, the smallest of these six metros, saw just slight net movement in office and industrial jobs from 2001 to 2006. In Toledo, Lucas County was unchanged in its percentage of metro area office employment and industrial employment slipped just 0.1 percentage point over these five years. Akron also saw industrial employment drop 0.1 point in its central county, Summit, but this county’s share of office employment increased 0.1 percentage point over the same period.

### Looking Ahead

Geographic movement within metro areas suggests growth and investment opportunities despite, perhaps, subdued net growth prospects for a given region. As cited in the beginning of this article, national office and industrial rental growth rates are expected to slow in 2008 and vacancy rates are forecast to increase. Ohio and its metro areas will have differing prospects related to their individual characteristics, office and industrial employment performance being particularly important. Overall employment forecasts for Ohio and the largest metro areas are found on page 11 of this publication with further regional analyses on subsequent pages.