Workforce Analysis
East Central Ohio
Economic Development Region 10

Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Holmes, Jefferson, Muskingum and Tuscarawas Counties
Workforce Analysis
Economic Development Region 10
East Central Ohio

Table of Contents

Preface ......................................................................................................................................................... iii
Executive Summary ................................................................................................................................ v

I. Understanding the Local Labor Market .................................................................................................. 1

II. Economic Indicators ............................................................................................................................ 3
    Population Trends ............................................................................................................................... 3
    Demographic Traits ........................................................................................................................... 3
    Employment Trends ............................................................................................................................ 4
    Unemployment Rate Trends .............................................................................................................. 5
    Per Capita Income Trends ................................................................................................................... 6
    Residential Construction Permit Trends .............................................................................................. 7

III. Employment Projections to 2014 ....................................................................................................... 9
    Projections by Industry Sector ........................................................................................................... 9
    Projections by Occupational Group ................................................................................................. 10
    High Prospect Occupations .............................................................................................................. 11

IV. Education & Training ....................................................................................................................... 15
    Educational Attainment .................................................................................................................. 15
    Institutions and Degree Completions ............................................................................................... 15
    Skills-Based Projections ................................................................................................................... 16

Technical Notes ...................................................................................................................................... 19
References ............................................................................................................................................... 20

Appendix A: Ohio’s Economic Development Regions .............................................................................. 21
Appendix B: Ohio’s Metropolitan Statistical Areas .................................................................................. 22
Appendix C: Detailed County-to-County Commuting Patterns ................................................................ 23
Appendix D: Major Employers by County .............................................................................................. 27
Appendix E: Postsecondary Institutions ................................................................................................. 30
Appendix F: Degree Completers by Program Class ................................................................................ 31
Preface

The Ohio Bureau of Labor Market Information (BLMI) recently published a series of Workforce Analysis reports for each of Ohio’s Workforce Investment Areas (WIAs), along with all twelve One-Stop Systems in WIA 7. These customized regional publications have been designed to help local workforce professionals and others gain a better understanding of the local economy and how it has fared compared to other areas. Now we have expanded the coverage to Economic Development Regions (EDRs). Related publications include the Ohio Job Outlook to 2014 for Ohio, eight of the state’s Metropolitan Statistical Areas (MSAs) and the twelve EDRs. A complementary report, released in June 2007, is Ohio Economic Analysis, 2007: Understanding the Environment and Charting a Course for the Future.

This Workforce Analysis report provides a summary snapshot of EDR 10: East Central Ohio, which includes Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Holmes, Jefferson, Muskingum and Tuscarawas Counties. The first section begins with a brief review of the region’s basic demographic and economic characteristics. The second section shows trends in several important local economic indicators, including population, nonfarm employment, unemployment rates, per capita income and residential construction. The next section contains regional employment projections and a list of occupations with high prospects through 2014. The final section presents overall educational attainment in this region and looks ahead to which skills will be in demand in the future.

A careful review of this information can yield important insights about the regional economy. One may assess the health of the local economy by examining key economic trends and comparing them to the state or the nation. Or an examination of occupational composition will yield insights into the strengths and weaknesses that regional policy might address. A regional analysis is at a level or scope that allows for greater opportunities of alignment and synergy across service providers. Hopefully the economic insights provided here will encourage asset mapping of resources and partnerships that span workforce development, education and economic development. The objective of this analysis is to give impetus to and inform such work.

Please refer to the Technical Notes and References sections at the end of this publication for reference and documentation of the wide variety of statistical data presented.

Keith Ewald, Ph.D., Chief
Bureau of Labor Market Information
Office of Workforce Development
Ohio Department of Job and Family Services
Executive Summary

- This region contains portions of the Canton-Massillon, Weirton-Steubenville and Wheeling MSAs. Almost every county has a negative net flow of commuters.

- The counties in East Central Ohio are all part of the Appalachian Region. Nine counties were designated as economically “transitional” and one as “at-risk.”

- Total population in 2006 was about 592,000, an increase of 0.5 percent from 1995. This region has an older age profile than the rest of the state.

- Nonfarm payroll employment was approximately 207,600 in 2006, a drop of 4.1 percent from 2000.

- The 2006 unemployment rate was 6.1 percent, down 1.1 percentage points from the last peak in 2004. East Central Ohio unemployment rates have remained above state and national rates for the last ten years.

- Per capita income in 2005 was $24,787, a compound annual increase of 3.5 percent.

- The decline to 480 residential construction permits granted in 2006 mirrored state and national trends. Average unit valuation was about $129,000.

- East Central Ohio is projected to add 10,500 jobs in net from 2004 to 2014. The fastest-growing industry sectors with substantial new job creation will be professional and business services; education and health services; and construction.

- The fastest-growing occupational groups will be computer and mathematical; healthcare; and business and financial operations.

- This region has a lower level of overall educational attainment than the rest of the state. However, there is faster growth in the number of postsecondary degrees being awarded.

- There are 17 postsecondary training providers in East Central Ohio offering almost 600 different programs. There were nearly 4,000 degrees and certificates awarded in 2006.

- The most important workplace skills through 2014 will be reading comprehension, speaking and critical thinking.
I. Understanding the Local Labor Market

Labor economists define a labor market as a geographic area in which both the demand and supply for labor are met primarily within that region. In other words, it is an area where there are jobs and the majority of workers needed for those jobs. An important first step in identifying local labor markets is to examine the commuting patterns of individuals who live or work in the area. These patterns are one of the primary inputs used to define metropolitan areas.

East Central Ohio contains portions of three different metropolitan areas—the Canton-Massillon MSA in Carroll County, the Weirton-Stebenville MSA in Jefferson County and the Wheeling MSA in Belmont County. But almost every county in the region has a negative net flow of commuters. Only Holmes and Muskingum Counties have net inflows of commuters. In total, over 33,000 workers in net commute outside the region to their jobs. This total excludes commuting between counties within the region.

**Figure 1: Regional Commuting Patterns**

<table>
<thead>
<tr>
<th>County</th>
<th>Working in the County</th>
<th>In-Commuters</th>
<th>Percent of In-Commuters</th>
<th>Employed Living in the County</th>
<th>Out-Commuters</th>
<th>Percent of Out-Commuters</th>
<th>Net Flow of Commuters</th>
<th>Percent of Total Commuters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>23,944</td>
<td>6,097</td>
<td>25.5%</td>
<td>27,889</td>
<td>10,042</td>
<td>36.0%</td>
<td>-3,945</td>
<td>-24.4%</td>
</tr>
<tr>
<td>Carroll</td>
<td>7,947</td>
<td>2,412</td>
<td>30.4%</td>
<td>12,882</td>
<td>7,347</td>
<td>57.0%</td>
<td>-4,935</td>
<td>-50.6%</td>
</tr>
<tr>
<td>Columbiana</td>
<td>37,705</td>
<td>7,790</td>
<td>20.7%</td>
<td>49,461</td>
<td>19,546</td>
<td>39.5%</td>
<td>-11,756</td>
<td>-43.0%</td>
</tr>
<tr>
<td>Coshocton</td>
<td>13,993</td>
<td>1,912</td>
<td>13.7%</td>
<td>16,585</td>
<td>4,504</td>
<td>27.2%</td>
<td>-2,592</td>
<td>-40.4%</td>
</tr>
<tr>
<td>Guernsey</td>
<td>15,528</td>
<td>3,276</td>
<td>21.1%</td>
<td>16,644</td>
<td>4,392</td>
<td>26.4%</td>
<td>-1,116</td>
<td>-14.6%</td>
</tr>
<tr>
<td>Harrison</td>
<td>4,416</td>
<td>1,282</td>
<td>29.0%</td>
<td>6,585</td>
<td>3,451</td>
<td>52.4%</td>
<td>-2,169</td>
<td>-45.8%</td>
</tr>
<tr>
<td>Holmes</td>
<td>17,493</td>
<td>5,340</td>
<td>30.5%</td>
<td>16,456</td>
<td>4,303</td>
<td>26.1%</td>
<td>1,037</td>
<td>10.8%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>25,922</td>
<td>6,150</td>
<td>23.7%</td>
<td>28,793</td>
<td>9,021</td>
<td>31.3%</td>
<td>-2,871</td>
<td>-18.9%</td>
</tr>
<tr>
<td>Muskingum</td>
<td>37,875</td>
<td>8,000</td>
<td>21.1%</td>
<td>37,774</td>
<td>7,899</td>
<td>20.9%</td>
<td>101</td>
<td>0.6%</td>
</tr>
<tr>
<td>Tuscarawas</td>
<td>37,247</td>
<td>6,440</td>
<td>17.3%</td>
<td>42,093</td>
<td>11,286</td>
<td>26.8%</td>
<td>-4,846</td>
<td>-27.3%</td>
</tr>
<tr>
<td><strong>East Central Ohio</strong></td>
<td><strong>222,070</strong></td>
<td><strong>27,339</strong></td>
<td><strong>12.3%</strong></td>
<td><strong>255,162</strong></td>
<td><strong>60,461</strong></td>
<td><strong>23.7%</strong></td>
<td><strong>-33,122</strong></td>
<td><strong>-37.7%</strong></td>
</tr>
</tbody>
</table>

Figure 2 on the next page shows a visual summary of the net flow of commuters from the 2000 decennial census. Most workers commuting into a county to work usually do so from adjacent counties. Detailed county-to-county commuting is shown in Appendix C.

The counties in East Central Ohio are all part of the Appalachian Region. The Appalachian Regional Commission designated nine counties in this EDR as “transitional” for fiscal year 2007, meaning their economic indices (comprised of unemployment, per capita market income, and the poverty rate) ranks in the middle 50 percent nationally, and one county (Guernsey) as “at-risk,” meaning their indices rank below 75 percent of counties nationally.2

---

1 Goldstein, 2005 (p. 1).
2 Appalachian Regional Commission [ARC], 2006.
Figure 2: Net Flow of Ohio Commuters

*Net flow equals in commuters minus out commuters. A negative number means more people are commuting to work outside the county than are in commuting. For more detailed information, please visit [http://lmi.state.oh.us/Census/CommutingPatterns2000.pdf](http://lmi.state.oh.us/Census/CommutingPatterns2000.pdf) on the web.

II. Economic Indicators

**Population Trends.** Total regional population in 2006 was approximately 592,000 residents. As Figure 3 below shows, there has been very little change in population in the past ten years; East Central Ohio has only grown about half a percent since 1995. For comparison, Ohio’s population increased 2.5 percent while national population increased 12.4 percent.

**Figure 3: Population Trends, 1995-2006**

Demographic Traits. Population estimates for 2006, shown in Figure 4 below, reveal differences between this EDR and the rest of the state and nation. As is common for much of Appalachia, this region is older than the rest of the state. 27.0 percent of residents are 55 or older, compared with only 24.3 percent across Ohio. There is also a smaller young population: 31.5 percent are younger than 25, compared with 33.7 percent statewide.

**Figure 4: Demographic Characteristics, 2006**
Employment Trends. Total nonfarm payroll employment in East Central Ohio was about 207,600 in 2006, down 4.1 percent from 2000. Like the rest of the state, this region has suffered significant job loss since the recession of 2001 and has not shown any real recovery since then. Statewide, Ohio’s employment has fallen 3.7 percent since 2000. The United States as a whole has recovered from the recession and grew 3.0 percent in net.
Unemployment Rate Trends. The unemployed are those in the non-institutional population 16 years or older who were not employed during the reference week but were actively seeking work, waiting to be called back to a job after a layoff, or waiting to report within 30 days to a new job. The regional unemployment rate in 2006 was 6.1 percent, significantly higher than the Ohio and U.S. rates for that year. Since the most recent peak in 2004, the unemployment rate has fallen 1.1 percentage points. For comparison, the 2006 Ohio unemployment rate was 5.5 percent and the national unemployment rate was 4.6 percent, having dropped 0.7 and 1.4 percentage points from their peaks in 2003, respectively.
**Per Capita Income Trends.** East Central Ohio's per capita income was $24,787 in 2005, far below the state and national income levels for that year. In general, income in rural areas tend to be lower than in more urbanized areas, and this region is highly rural. Since 1995, regional per capita income has grown at a 3.5 percent annual compound rate, the same rate as Ohio as a whole. National per capita income increased 4.1 percent during the same period.

Figure 7: Per Capita Income, 1995-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>East Central Ohio</th>
<th>Ohio</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>$17,525</td>
<td>$22,495</td>
<td>$23,076</td>
</tr>
<tr>
<td>1996</td>
<td>$18,170</td>
<td>$23,322</td>
<td>$24,175</td>
</tr>
<tr>
<td>1997</td>
<td>$19,132</td>
<td>$24,656</td>
<td>$25,334</td>
</tr>
<tr>
<td>1998</td>
<td>$20,317</td>
<td>$26,017</td>
<td>$26,883</td>
</tr>
<tr>
<td>1999</td>
<td>$20,850</td>
<td>$26,859</td>
<td>$27,939</td>
</tr>
<tr>
<td>2000</td>
<td>$21,861</td>
<td>$28,205</td>
<td>$29,843</td>
</tr>
<tr>
<td>2001</td>
<td>$22,380</td>
<td>$28,583</td>
<td>$30,562</td>
</tr>
<tr>
<td>2002</td>
<td>$22,823</td>
<td>$29,187</td>
<td>$30,795</td>
</tr>
<tr>
<td>2003</td>
<td>$23,369</td>
<td>$29,826</td>
<td>$31,466</td>
</tr>
<tr>
<td>2004</td>
<td>$24,020</td>
<td>$30,763</td>
<td>$33,090</td>
</tr>
<tr>
<td>2005</td>
<td>$24,787</td>
<td>$31,860</td>
<td>$34,471</td>
</tr>
</tbody>
</table>
Residential Construction Permit Trends. As Figures 8 and 9 below indicate, construction trends have varied widely in the last few years. The jump in permits and decline in average valuation in 2004 was due to a large number of multi-unit permits issued that year. The decline to 480 permits granted in 2006 mirrored state and national trends. Average valuation was about $158,000.
III. Employment Projections to 2014

Projections by Industry Sector. Figure 10 below shows employment projections from the Job Outlook to 2014 for East Central Ohio arranged by industry sector. As of 2004, 26.4 percent of total employment was in goods-producing industries such as construction and manufacturing, significantly higher than the statewide average of only 19.9 percent. Another 67.3 percent is in service-providing industries like retail and health care. The remaining 6.3 percent consists of the self-employed, private household and unpaid family workers.

From 2004 to 2014, East Central Ohio is projected to add 10,500 jobs, primarily in service-providing industries. Real estate and rental and leasing will be the fastest-growing sector during this period, creating 300 net new jobs (16.7%). Education and health services—which includes hospitals, clinics and private schools—will also see exceptional growth, driven by an aging population and new emerging medical technologies. Other fast-growing sectors include professional and business services; construction; and finance and insurance. Manufacturing is expected to shed 4,100 jobs during this period (-10.2%).

Figure 10: East Central Ohio Projections to 2014 by Industry Sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment</td>
<td>237,300</td>
<td>247,800</td>
<td>10,500</td>
<td>4.4%</td>
</tr>
<tr>
<td>Goods-Producing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Resources and Mining</td>
<td>13,000</td>
<td>12,100</td>
<td>-900</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Construction</td>
<td>9,600</td>
<td>11,100</td>
<td>1,500</td>
<td>15.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>40,100</td>
<td>36,000</td>
<td>-4,100</td>
<td>-10.2%</td>
</tr>
<tr>
<td>Service-Providing</td>
<td>159,700</td>
<td>173,700</td>
<td>14,000</td>
<td>8.8%</td>
</tr>
<tr>
<td>Trade, Transportation and Utilities</td>
<td>44,700</td>
<td>47,500</td>
<td>2,800</td>
<td>6.3%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>30,400</td>
<td>32,200</td>
<td>1,800</td>
<td>5.9%</td>
</tr>
<tr>
<td>Information</td>
<td>2,700</td>
<td>2,900</td>
<td>200</td>
<td>7.4%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>7,100</td>
<td>7,900</td>
<td>800</td>
<td>11.3%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>5,300</td>
<td>5,900</td>
<td>600</td>
<td>11.3%</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>1,700</td>
<td>2,000</td>
<td>300</td>
<td>17.6%</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>12,000</td>
<td>14,000</td>
<td>2,000</td>
<td>16.7%</td>
</tr>
<tr>
<td>Education and Health Services</td>
<td>31,700</td>
<td>36,800</td>
<td>5,100</td>
<td>16.1%</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>20,400</td>
<td>21,500</td>
<td>1,100</td>
<td>5.4%</td>
</tr>
<tr>
<td>Arts, Entertainment &amp; Recreation</td>
<td>2,000</td>
<td>2,100</td>
<td>100</td>
<td>5.0%</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>18,400</td>
<td>19,500</td>
<td>1,100</td>
<td>6.0%</td>
</tr>
<tr>
<td>Other Services</td>
<td>9,600</td>
<td>10,400</td>
<td>800</td>
<td>8.3%</td>
</tr>
<tr>
<td>Government</td>
<td>31,600</td>
<td>32,700</td>
<td>1,100</td>
<td>3.5%</td>
</tr>
<tr>
<td>Federal Government</td>
<td>1,900</td>
<td>1,900</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>State Government</td>
<td>3,100</td>
<td>3,100</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Local Government</td>
<td>26,500</td>
<td>27,800</td>
<td>1,300</td>
<td>4.9%</td>
</tr>
<tr>
<td>Self-Employed, Private Household and Unpaid Family Workers</td>
<td>15,000</td>
<td>14,900</td>
<td>-100</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>
Projections by Occupational Group. Figure 11 shows the region’s employment projections arranged by major occupational group. In 2004, the largest occupational groups here were office and administrative support; production; and sales and related occupations.

From 2004 to 2014, healthcare occupations are projected to add about 3,750 jobs in net, or 17.8 percent. Again, this is related to expected strong demand for healthcare services. Other fast-growing occupational groups during this period will include computer and mathematical (21.7%); business and financial operations (12.4%); and personal care and service (11.5%).

On average, there will be about 6,700 job openings per year in this region from 2004 to 2014. The two groups with the largest number of average annual openings—sales and related and food preparation and serving related—tend to have high replacement needs. Also note that although production occupations are expected to lose about 2,200 workers during this period, there will be over 700 average annual openings. In general, three out of every four job openings are for replacement hires.

### Figure 11: East Central Ohio Projections to 2014 by Occupational Group

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, All Occupations</td>
<td>237,300</td>
<td>247,800</td>
<td>10,500</td>
<td>4.4%</td>
</tr>
<tr>
<td>Management Occupations</td>
<td>17,020</td>
<td>16,660</td>
<td>-360</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Business and Financial Operations Occupations</td>
<td>5,660</td>
<td>6,360</td>
<td>700</td>
<td>12.4%</td>
</tr>
<tr>
<td>Computer and Mathematical Occupations</td>
<td>1,380</td>
<td>1,680</td>
<td>300</td>
<td>21.7%</td>
</tr>
<tr>
<td>Architecture and Engineering Occupations</td>
<td>2,110</td>
<td>2,200</td>
<td>90</td>
<td>4.3%</td>
</tr>
<tr>
<td>Life, Physical, and Social Science Occupations</td>
<td>640</td>
<td>670</td>
<td>30</td>
<td>4.7%</td>
</tr>
<tr>
<td>Community and Social Services Occupations</td>
<td>3,430</td>
<td>3,690</td>
<td>260</td>
<td>7.6%</td>
</tr>
<tr>
<td>Legal Occupations</td>
<td>470</td>
<td>500</td>
<td>30</td>
<td>6.4%</td>
</tr>
<tr>
<td>Education, Training, and Library Occupations</td>
<td>13,710</td>
<td>14,980</td>
<td>1,270</td>
<td>9.3%</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports, &amp; Media Occ.</td>
<td>2,320</td>
<td>2,480</td>
<td>160</td>
<td>6.9%</td>
</tr>
<tr>
<td>Healthcare Occupations, total</td>
<td>21,120</td>
<td>24,870</td>
<td>3,750</td>
<td>17.8%</td>
</tr>
<tr>
<td>Protective Service Occupations</td>
<td>3,850</td>
<td>3,960</td>
<td>110</td>
<td>2.9%</td>
</tr>
<tr>
<td>Food Preparation and Serving Related Occupations</td>
<td>20,450</td>
<td>21,480</td>
<td>1,030</td>
<td>5.0%</td>
</tr>
<tr>
<td>Building &amp; Grounds Cleaning &amp; Maintenance Occup.</td>
<td>8,150</td>
<td>8,820</td>
<td>670</td>
<td>8.2%</td>
</tr>
<tr>
<td>Personal Care and Service Occupations</td>
<td>6,080</td>
<td>6,780</td>
<td>700</td>
<td>11.5%</td>
</tr>
<tr>
<td>Sales and Related Occupations</td>
<td>25,180</td>
<td>26,630</td>
<td>1,450</td>
<td>5.8%</td>
</tr>
<tr>
<td>Office and Administrative Support Occupinations</td>
<td>30,810</td>
<td>30,710</td>
<td>-100</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Farming, Fishing, and Forestry Occupations</td>
<td>1,020</td>
<td>960</td>
<td>-60</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Construction and Extraction Occupations</td>
<td>14,020</td>
<td>15,610</td>
<td>1,590</td>
<td>11.3%</td>
</tr>
<tr>
<td>Installation, Maintenance, and Repair Occupations</td>
<td>10,590</td>
<td>11,010</td>
<td>420</td>
<td>4.0%</td>
</tr>
<tr>
<td>Production Occupations</td>
<td>29,130</td>
<td>26,930</td>
<td>-2,200</td>
<td>-7.6%</td>
</tr>
<tr>
<td>Transportation and Material Moving Occupinations</td>
<td>20,160</td>
<td>20,820</td>
<td>660</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
High Prospect Occupations. A high prospect occupation is one that pays at least $12 per hour on average and is expected to have at least ten average annual openings. There are about 80 such occupations identified for East Central Ohio. Figure 12 shows these high prospect occupations arranged by required education and training.

Figure 12: High Prospect Occupations in East Central Ohio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004 Annual</td>
<td>2014 Projected</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43-4111</td>
<td>Interviewers, except Eligibility and Loan</td>
<td>290</td>
<td>320</td>
<td>30</td>
<td>10.3%</td>
</tr>
<tr>
<td>43-5052</td>
<td>Postal Service Mail Carriers</td>
<td>740</td>
<td>700</td>
<td>-40</td>
<td>-5.4%</td>
</tr>
<tr>
<td>43-5061</td>
<td>Production, Planning, and Expediting Clerks</td>
<td>440</td>
<td>450</td>
<td>10</td>
<td>2.3%</td>
</tr>
<tr>
<td>43-5071</td>
<td>Shipping, Receiving, and Traffic Clerks</td>
<td>1,260</td>
<td>1,220</td>
<td>-40</td>
<td>-3.2%</td>
</tr>
<tr>
<td>51-9198</td>
<td>Helpers--Production Workers</td>
<td>1,750</td>
<td>1,720</td>
<td>-30</td>
<td>-1.7%</td>
</tr>
<tr>
<td>53-3033</td>
<td>Truck Drivers, Light or Delivery Services</td>
<td>2,570</td>
<td>2,650</td>
<td>80</td>
<td>3.1%</td>
</tr>
<tr>
<td>53-7051</td>
<td>Industrial Truck and Tractor Operators</td>
<td>1,520</td>
<td>1,500</td>
<td>-20</td>
<td>-1.3%</td>
</tr>
</tbody>
</table>

Occupations Requiring Short-Term On-the-Job Training (up to one month)

Occupations Requiring Moderate-Term On-the-Job Training (one to twelve months combined experience/training)

Occupations Requiring Long-Term On-the-Job Training (twelve months or more combined experience/training)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>49-9041</td>
<td>Industrial Machinery Mechanics</td>
<td>530</td>
<td>0</td>
<td>0.0%</td>
<td>11</td>
</tr>
<tr>
<td>51-4041</td>
<td>Machinists</td>
<td>980</td>
<td>-30</td>
<td>-3.1%</td>
<td>23</td>
</tr>
<tr>
<td>51-4121</td>
<td>Welders, Cutters, Solderers, and Brazers</td>
<td>920</td>
<td>10</td>
<td>1.1%</td>
<td>27</td>
</tr>
<tr>
<td>51-8031</td>
<td>Water/Liquid Waste Treatment Plant/System Op.</td>
<td>300</td>
<td>20</td>
<td>6.7%</td>
<td>12</td>
</tr>
<tr>
<td>11-9051</td>
<td>Food Service Managers</td>
<td>670</td>
<td>20</td>
<td>3.0%</td>
<td>13</td>
</tr>
<tr>
<td>13-1051</td>
<td>Cost Estimators</td>
<td>390</td>
<td>60</td>
<td>15.4%</td>
<td>15</td>
</tr>
<tr>
<td>41-1011</td>
<td>First-Line Superv./Mgrs of Retail Sales Workers</td>
<td>2,890</td>
<td>30</td>
<td>1.0%</td>
<td>55</td>
</tr>
<tr>
<td>41-1012</td>
<td>First-Line Superv./Mgrs of Non-Retail Sales Workers</td>
<td>550</td>
<td>-10</td>
<td>-1.8%</td>
<td>10</td>
</tr>
<tr>
<td>43-1011</td>
<td>First-Line Superv./Mgrs of Office &amp; Admin. Support</td>
<td>1,400</td>
<td>0</td>
<td>0.0%</td>
<td>30</td>
</tr>
<tr>
<td>47-1011</td>
<td>First-Line Superv./Mgrs of Con. Trades/Extract. Work</td>
<td>910</td>
<td>110</td>
<td>12.1%</td>
<td>27</td>
</tr>
<tr>
<td>49-1011</td>
<td>FL Supervisors of Mechanics/Installers/Repairers</td>
<td>820</td>
<td>40</td>
<td>4.9%</td>
<td>25</td>
</tr>
<tr>
<td>51-1011</td>
<td>FL Supervisors of Production/Operating Workers</td>
<td>2,240</td>
<td>-70</td>
<td>-3.1%</td>
<td>47</td>
</tr>
<tr>
<td>53-1031</td>
<td>FL Supervisors of Trans/Mat.-Mov. Mach &amp; Veh Op</td>
<td>440</td>
<td>70</td>
<td>15.9%</td>
<td>17</td>
</tr>
<tr>
<td>29-2061</td>
<td>Licensed Practical &amp; Licensed Vocat. Nurses</td>
<td>1,990</td>
<td>120</td>
<td>6.0%</td>
<td>55</td>
</tr>
<tr>
<td>49-3023</td>
<td>Automotive Service Technicians and Mechanics</td>
<td>1,470</td>
<td>160</td>
<td>10.9%</td>
<td>55</td>
</tr>
<tr>
<td>49-3031</td>
<td>Bus &amp; Truck Mechanics &amp; Diesel Engine Spec.</td>
<td>650</td>
<td>80</td>
<td>12.3%</td>
<td>25</td>
</tr>
<tr>
<td>29-1111</td>
<td>Registered Nurses‡</td>
<td>4,500</td>
<td>860</td>
<td>19.1%</td>
<td>180</td>
</tr>
<tr>
<td>29-1126</td>
<td>Respiratory Therapists</td>
<td>250</td>
<td>40</td>
<td>16.0%</td>
<td>12</td>
</tr>
<tr>
<td>29-2034</td>
<td>Radiologic Technologists and Technicians</td>
<td>430</td>
<td>70</td>
<td>16.3%</td>
<td>15</td>
</tr>
<tr>
<td>31-2021</td>
<td>Physical Therapist Assistants</td>
<td>210</td>
<td>60</td>
<td>28.6%</td>
<td>10</td>
</tr>
<tr>
<td>13-2011</td>
<td>Accountants and Auditors</td>
<td>1,230</td>
<td>160</td>
<td>13.0%</td>
<td>39</td>
</tr>
<tr>
<td>15-1031</td>
<td>Computer Software Engineers, Applications</td>
<td>300</td>
<td>140</td>
<td>46.7%</td>
<td>17</td>
</tr>
<tr>
<td>17-2112</td>
<td>Industrial Engineers</td>
<td>340</td>
<td>30</td>
<td>8.8%</td>
<td>11</td>
</tr>
<tr>
<td>21-1021</td>
<td>Child, Family and School Social Workers</td>
<td>350</td>
<td>40</td>
<td>11.4%</td>
<td>10</td>
</tr>
<tr>
<td>21-1022</td>
<td>Medical and Public Health Social Workers</td>
<td>390</td>
<td>50</td>
<td>12.8%</td>
<td>12</td>
</tr>
<tr>
<td>25-2021</td>
<td>Elementary School Teachers, ex.Special Ed.†</td>
<td>2,840</td>
<td>240</td>
<td>8.5%</td>
<td>87</td>
</tr>
<tr>
<td>25-2022</td>
<td>Middle School Teachers, ex. Special &amp; Voc. Ed.†</td>
<td>1,160</td>
<td>40</td>
<td>3.4%</td>
<td>30</td>
</tr>
<tr>
<td>25-2041</td>
<td>Special Ed. Teachers, Pre./Kinder./Elem. Sch.†</td>
<td>460</td>
<td>90</td>
<td>19.6%</td>
<td>20</td>
</tr>
<tr>
<td>25-2042</td>
<td>Special Education Teachers, Middle School†</td>
<td>250</td>
<td>40</td>
<td>16.0%</td>
<td>10</td>
</tr>
<tr>
<td>25-2043</td>
<td>Special Education Teachers, Secondary School†</td>
<td>510</td>
<td>50</td>
<td>9.8%</td>
<td>17</td>
</tr>
<tr>
<td>41-3021</td>
<td>Insurance Sales Agents</td>
<td>890</td>
<td>50</td>
<td>5.6%</td>
<td>26</td>
</tr>
<tr>
<td>11-1011</td>
<td>Chief Executives</td>
<td>580</td>
<td>30</td>
<td>5.2%</td>
<td>14</td>
</tr>
<tr>
<td>11-1021</td>
<td>General and Operations Managers</td>
<td>2,040</td>
<td>170</td>
<td>8.3%</td>
<td>55</td>
</tr>
<tr>
<td>11-9111</td>
<td>Medical and Health Services Managers</td>
<td>350</td>
<td>40</td>
<td>11.4%</td>
<td>11</td>
</tr>
<tr>
<td>25-2032</td>
<td>Vocational Education Teachers, Secondary Sch.†</td>
<td>280</td>
<td>20</td>
<td>7.1%</td>
<td>10</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
<td>------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>29-1051</td>
<td>Pharmacists</td>
<td>380</td>
<td>450</td>
<td>70</td>
<td>14</td>
</tr>
</tbody>
</table>

*May 2005 wages aged to April 2006. Wages in *italics* are statewide figures because EDR wages were unavailable.

**Abbreviations
- FL Sup/Mgrs = First-Line Supervisors/Managers
- M/P = Metal and Plastic
- O/T = Operators and Tenders
- S/O/T = Setters, Operators and Tenders

1 Annual earnings, typically for a 9½ month school year

2 Training requirements may be met through a two-year associate's degree; a three-year diploma; or a four-year bachelor's degree.

IV. Education & Training

Educational Attainment. Figure 13 below shows levels of educational attainment among adults 25 or older in the region and statewide. This EDR has a lower level of overall educational attainment than the rest of Ohio. There is a larger proportion of adults here without a high school diploma (21.1%). Only 16.4 percent of adults have an associate’s degree or higher, compared with 27.0 percent statewide.

![Figure 13: Educational Attainment, 2000](image)

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Ohio Statewide</th>
<th>East Central Ohio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s Degree or Higher</td>
<td>547,276</td>
<td>15,020</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>1,016,256</td>
<td>28,705</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>439,608</td>
<td>21,171</td>
</tr>
<tr>
<td>Some College</td>
<td>1,471,964</td>
<td>62,835</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>2,674,551</td>
<td>183,994</td>
</tr>
<tr>
<td>No High School Diploma</td>
<td>1,262,085</td>
<td>83,585</td>
</tr>
</tbody>
</table>

Institutions and Degree Completions. However, educational attainment appears to be growing at a faster rate than statewide. There are about 17 postsecondary training providers in East Central Ohio offering nearly 600 different programs: 4 public adult schools with vocational programs; 8 two-year technical and community colleges; and 5 four-year colleges and universities. Nearly 4,000 postsecondary awards were granted in 2006—6.7 percent higher than the prior year. For comparison, Ohio grew 3.7 percent. The fastest growth was in postsecondary award programs less than 2 years long—important in many production trades. Details on educational institutions and program completers are available in Appendices E and F, respectively.
Skills-Based Projections. The Bureau of Labor Market Information recently analyzed occupational projections to determine the workplace skills that will be in demand in 2014. There are 35 skills that have been identified as potentially related to a job by the Occupational Information Network (O*NET) system. Skills are learned capabilities that allow workers to master and perform the specific activities of their jobs. On average, each occupation has about five skills associated with it. For additional details on how the skills-based projections analysis was conducted, please refer to the Technical Notes at the end of this report.

Figure 15 on the next page ranks all 35 skills by the projected need for training and gives several importance measures for both Central Ohio and the entire state. The first, supply rank, ranks the skills based on how many jobs today require each. Percent demand gives the proportion of average annual openings through 2014 that will require a skill, with higher percentages indicating stronger demand. The gap index is the difference between the available supply of a workplace skill and its projected demand, standardized to a range of 0 to 100. A higher gap index indicates stronger need for training. Finally, the replacement index gives the proportion of projected annual openings requiring a given skill that will arise to replace exiting workers (e.g. through dismissals, retirements, etc.) rather than to fill a new position. Demand for skills with higher replacement indices may be tempered with poor employment growth.

As is the case in most of Ohio, reading comprehension will be the most important workplace skill in the coming years. It will be required in nearly half (47.4%) of all projected openings through 2014. It also has the largest gap between available supply and projected future demand. Other workplace skills with high projected skills gap indices include speaking, critical thinking, active listening and coordination.

In comparing with Ohio’s figures, one can see a few skills that will be in higher demand in this region than across the state. These include equipment maintenance; repairing; operation monitoring; operation and control; and equipment selection—all production-related skills. This will clearly continue to be an important trade in East Central Ohio in the future, despite net employment declines.
Figure 15: Projected Skills Needs for 2014

<table>
<thead>
<tr>
<th>Skill</th>
<th>Supply Rank</th>
<th>East Central Ohio</th>
<th>Ohio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Gap Index</td>
<td>Repl. Index</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>1</td>
<td>47.4%</td>
<td>100</td>
</tr>
<tr>
<td>Speaking</td>
<td>4</td>
<td>36.9%</td>
<td>97</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>3</td>
<td>41.0%</td>
<td>94</td>
</tr>
<tr>
<td>Active Listening</td>
<td>2</td>
<td>45.2%</td>
<td>91</td>
</tr>
<tr>
<td>Coordination</td>
<td>5</td>
<td>35.6%</td>
<td>89</td>
</tr>
<tr>
<td>Active Learning</td>
<td>7</td>
<td>34.8%</td>
<td>86</td>
</tr>
<tr>
<td>Monitoring</td>
<td>8</td>
<td>32.1%</td>
<td>83</td>
</tr>
<tr>
<td>Writing</td>
<td>9</td>
<td>30.5%</td>
<td>80</td>
</tr>
<tr>
<td>Instructing</td>
<td>6</td>
<td>34.9%</td>
<td>77</td>
</tr>
<tr>
<td>Time Management</td>
<td>10</td>
<td>29.3%</td>
<td>74</td>
</tr>
<tr>
<td>Social Perceptiveness</td>
<td>12</td>
<td>28.4%</td>
<td>71</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>11</td>
<td>29.9%</td>
<td>69</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>13</td>
<td>24.0%</td>
<td>66</td>
</tr>
<tr>
<td>Persuasion</td>
<td>14</td>
<td>21.3%</td>
<td>63</td>
</tr>
<tr>
<td>Judgment and Decision Making</td>
<td>16</td>
<td>20.3%</td>
<td>60</td>
</tr>
<tr>
<td>Mathematics</td>
<td>18</td>
<td>18.2%</td>
<td>57</td>
</tr>
<tr>
<td>Complex Problem Identification</td>
<td>17</td>
<td>19.0%</td>
<td>54</td>
</tr>
<tr>
<td>Negotiation</td>
<td>21</td>
<td>10.7%</td>
<td>51</td>
</tr>
<tr>
<td>Management of Personnel Resources</td>
<td>20</td>
<td>10.2%</td>
<td>49</td>
</tr>
<tr>
<td>Equipment Selection</td>
<td>15</td>
<td>17.3%</td>
<td>46</td>
</tr>
<tr>
<td>Repairing</td>
<td>24</td>
<td>7.8%</td>
<td>43</td>
</tr>
<tr>
<td>Installation</td>
<td>25</td>
<td>7.5%</td>
<td>40</td>
</tr>
<tr>
<td>Management of Financial Resources</td>
<td>27</td>
<td>5.6%</td>
<td>37</td>
</tr>
<tr>
<td>Equipment Maintenance</td>
<td>19</td>
<td>12.6%</td>
<td>34</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>22</td>
<td>9.8%</td>
<td>31</td>
</tr>
<tr>
<td>Systems Evaluation</td>
<td>32</td>
<td>2.9%</td>
<td>29</td>
</tr>
<tr>
<td>Operations Analysis</td>
<td>29</td>
<td>3.4%</td>
<td>26</td>
</tr>
<tr>
<td>Science</td>
<td>31</td>
<td>2.9%</td>
<td>23</td>
</tr>
<tr>
<td>Management of Material Resources</td>
<td>30</td>
<td>3.0%</td>
<td>20</td>
</tr>
<tr>
<td>Systems Analysis</td>
<td>33</td>
<td>1.6%</td>
<td>17</td>
</tr>
<tr>
<td>Technology Design</td>
<td>34</td>
<td>1.4%</td>
<td>14</td>
</tr>
<tr>
<td>Programming</td>
<td>35</td>
<td>0.4%</td>
<td>11</td>
</tr>
<tr>
<td>Operation and Control</td>
<td>26</td>
<td>6.7%</td>
<td>9</td>
</tr>
<tr>
<td>Operation Monitoring</td>
<td>23</td>
<td>8.2%</td>
<td>6</td>
</tr>
<tr>
<td>Quality Control</td>
<td>28</td>
<td>4.9%</td>
<td>3</td>
</tr>
</tbody>
</table>
Population, demographic and commuting estimates were obtained from the U.S. Census Bureau. Population and demographics are available online at http://www.census.gov/popest/datasets.html. Commuting data are available online at http://www.census.gov/population/www/cen2000/commuting.html.

Current employment data were obtained from the Quarterly Census of Employment and Wages (QCEW), as conducted by the Ohio Bureau of Labor Market Information, Administrative Industry Statistics Section. The data are based on reports filed by employers subject to the Ohio Unemployment Compensation Law, as well as those covered under Unemployment Compensation for Federal Employees, by place of work. Total employment figures may include some employment in establishments which could not be classified. See the Economic Development Profiles at http://lmi.state.oh.us/CEP/CEP.htm or the “Data Query” menu for Employment and Wages by Industry at http://www.OhioWorkforceInformer.org. For details on industry classifications, visit 2002 North American Industry Classification System (NAICS) Codes and Titles at http://www.census.gov/epcd/naics02/naicod02.htm.

Unemployment rate estimates were developed by the Ohio Bureau of Labor Market Information, Local Area Unemployment Statistics (LAUS) Section. Data are available online at http://www.OhioWorkforceInformer.org under the “Data Query” tab. 

Per capita income figures at the county level are from the U.S. Bureau of Economic Analysis and were recalculated for EDRs by the Ohio Bureau of Labor Market Information, Workforce Research Section. County data are downloadable from http://www.bea.gov/bea/regional/reis and EDR data from http://www.OhioWorkforceInformer.org.

Employment projections data, by industry and occupation, were obtained from the Ohio Job Outlook to 2014, published by the Ohio Bureau of Labor Market Information, Workforce Research Section. These were rounded estimates and columns may not total. Outlooks for each of Ohio’s EDRs are available for download at http://lmi.state.oh.us/proj/OhioJobOutlook.htm. For details on occupational classifications, visit Standard Occupational Classification (SOC) System at http://www.bls.gov/soc/home.htm. The number of average annual openings needed to qualify as a high-prospect occupation may vary depending on the EDR’s relative size and total employment levels.

Data on educational attainment were obtained from the Ohio Department of Development, Office of Strategic Research, based on information from the 2000 decennial census. Detailed information on each of Ohio’s 88 counties, including a list of major employers, is available at http://www.odod.state.oh.us/research/files/s0.htm.

Degree completion data are from the Integrated Postsecondary Education Data System (IPEDS) by the U.S. Department of Education. IPEDS collects data from higher education institutions around the country on the number of degree completers, degree or award types, and educational program types. For more information, visit http://nces.ed.gov/IPEDS/about/ or contact BLMI at (888) 296-7541.

Skills-based projections were developed using the Skills Based Employment Projections web software from the Projections Workgroup. Skills were classified using O*NET—a matching of SOC-like occupations with typically required knowledge, skills and abilities. Skill-occupation matchings were included in the analysis if the skill had an importance score of at least 3 out of 5 and a level score of at least 4 out of 7. A detailed content model is available online at http://www.onetcenter.org/dl_files/ContentModel_DetailedDesc.pdf.

For more information on Ohio workforce statistics, visit the Ohio Workforce Informer online at http://www.OhioWorkforceInformer.org or the Ohio Labor Market Information Classic website at http://lmi.state.oh.us.
References


Appendix A: Ohio’s Economic Development Regions

1. **Central Ohio**: Delaware, Fairfield, Fayette, Franklin, Licking, Logan, Madison and Union Counties
2. **Northwest Ohio**: Defiance, Erie, Fulton, Henry, Lucas, Ottawa, Sandusky, Williams and Wood Counties
3. **West Central Ohio**: Allen, Auglaize, Hancock, Hardin, Mercer, Paulding, Putnam and Van Wert Counties
4. **Southwest Central Ohio**: Champaign, Clark, Clinton, Darke, Greene, Miami, Montgomery, Preble, and Shelby Counties
5. **Southwest Ohio**: Butler, Clermont, Hamilton and Warren Counties
6. **North Central Ohio**: Ashland, Crawford, Huron, Knox, Marion, Morrow, Richland, Seneca and Wyandot Counties
7. **Southern Ohio**: Adams, Brown, Gallia, Highland, Jackson, Lawrence, Ross, Scioto and Vinton Counties
8. **Northern Ohio**: Cuyahoga, Geauga, Lake and Lorain Counties
9. **Northeast Central Ohio**: Medina, Portage, Stark, Summit and Wayne Counties
10. **East Central Ohio**: Belmont, Carroll, Columbiana, Coshocton, Harrison, Holmes, Jefferson, Muskingum and Tuscarawas Counties
11. **Southeast Ohio**: Athens, Hocking, Meigs, Monroe, Morgan, Noble, Perry and Washington Counties
12. **Northeast Ohio**: Ashland, Mahoning and Trumbull Counties
Appendix B: Ohio’s Metropolitan Statistical Areas

A. Akron MSA: Portage and Summit Counties.
B. Canton-Massillon MSA: Carroll and Stark Counties.
C. Cincinnati-Middletown MSA: Brown, Butler, Clermont, Hamilton and Warren Counties in Ohio; Dearborn, Franklin and Ohio Counties in Indiana; and Boone, Bracken, Campbell, Gallatin, Grant, Kenton and Pendleton Counties in Kentucky.
D. Cleveland-Elyria-Mentor MSA: Cuyahoga, Geauga, Lake, Lorain and Medina Counties.
E. Columbus MSA: Delaware, Fairfield, Franklin, Licking, Madison, Morrow, Pickaway and Union Counties.
F. Dayton MSA: Greene, Miami, Montgomery and Preble Counties.
G. Huntington-Ashland MSA*: Cabell and Wayne Counties in West Virginia; Boyd and Greenup Counties in Kentucky; and Lawrence County in Ohio.
H. Lima MSA: Allen County.
I. Mansfield MSA: Richland County.
K. Sandusky MSA: Erie County.
L. Springfield MSA: Clark County.
N. Weirton-Steubenville MSA: Jefferson County in Ohio and Brooke and Hancock Counties in West Virginia.
O. Wheeling MSA*: Marshall and Ohio Counties in West Virginia and Belmont County in Ohio.
P. Youngstown-Warren-Boardman MSA: Mahoning and Trumbull Counties in Ohio and Mercer County in Pennsylvania.

*Statistical Areas in other states that include Ohio counties.
### Appendix C: Detailed County-to-County Commuting Patterns

#### Belmont

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Co. WV</td>
<td>4,603</td>
<td>16.5%</td>
<td>Ohio Co. WV</td>
<td>1,876</td>
<td>7.8%</td>
</tr>
<tr>
<td>Jefferson Co. OH</td>
<td>1,129</td>
<td>4.0%</td>
<td>Jefferson Co. OH</td>
<td>1,236</td>
<td>5.2%</td>
</tr>
<tr>
<td>Marshall Co. WV</td>
<td>1,064</td>
<td>3.8%</td>
<td>Marshall Co. WV</td>
<td>858</td>
<td>3.6%</td>
</tr>
<tr>
<td>Monroe Co. OH</td>
<td>626</td>
<td>2.2%</td>
<td>Monroe Co. OH</td>
<td>596</td>
<td>2.5%</td>
</tr>
<tr>
<td>Guernsey Co. OH</td>
<td>466</td>
<td>1.7%</td>
<td>Harrison Co. OH</td>
<td>361</td>
<td>1.5%</td>
</tr>
<tr>
<td>Harrison Co. OH</td>
<td>280</td>
<td>1.0%</td>
<td>Guernsey Co. OH</td>
<td>318</td>
<td>1.3%</td>
</tr>
<tr>
<td>Wetzel Co. WV</td>
<td>227</td>
<td>0.8%</td>
<td>Brooke Co. WV</td>
<td>155</td>
<td>0.6%</td>
</tr>
<tr>
<td>Allegheny Co. PA</td>
<td>206</td>
<td>0.7%</td>
<td>Noble Co. OH</td>
<td>103</td>
<td>0.4%</td>
</tr>
<tr>
<td>Franklin Co. OH</td>
<td>141</td>
<td>0.5%</td>
<td>Washington Co. PA</td>
<td>75</td>
<td>0.3%</td>
</tr>
<tr>
<td>Washington Co. PA</td>
<td>138</td>
<td>0.5%</td>
<td>Muskingum Co. OH</td>
<td>38</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

#### Carroll

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stark Co. OH</td>
<td>5,125</td>
<td>39.8%</td>
<td>Stark Co. OH</td>
<td>956</td>
<td>12.0%</td>
</tr>
<tr>
<td>Tuscarawas Co. OH</td>
<td>640</td>
<td>6.5%</td>
<td>Columbiana Co. OH</td>
<td>453</td>
<td>5.7%</td>
</tr>
<tr>
<td>Columbiana Co. OH</td>
<td>297</td>
<td>2.3%</td>
<td>Tuscarawas Co. OH</td>
<td>289</td>
<td>3.6%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>271</td>
<td>2.1%</td>
<td>Jefferson Co. OH</td>
<td>265</td>
<td>3.3%</td>
</tr>
<tr>
<td>Jefferson Co. OH</td>
<td>178</td>
<td>1.4%</td>
<td>Harrison Co. OH</td>
<td>188</td>
<td>2.4%</td>
</tr>
<tr>
<td>Harrison Co. OH</td>
<td>160</td>
<td>1.2%</td>
<td>Holmes Co. OH</td>
<td>76</td>
<td>1.0%</td>
</tr>
<tr>
<td>Cuyahoga Co. OH</td>
<td>73</td>
<td>0.6%</td>
<td>Mahoning Co. OH</td>
<td>44</td>
<td>0.6%</td>
</tr>
<tr>
<td>Wayne Co. OH</td>
<td>73</td>
<td>0.6%</td>
<td>Mercer Co. PA</td>
<td>16</td>
<td>0.2%</td>
</tr>
<tr>
<td>Mahoning Co. OH</td>
<td>47</td>
<td>0.4%</td>
<td>Clark Co. OH</td>
<td>13</td>
<td>0.2%</td>
</tr>
<tr>
<td>Portage Co. OH</td>
<td>37</td>
<td>0.3%</td>
<td>Geauga Co. OH</td>
<td>12</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

#### Columbiana

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mahoning Co. OH</td>
<td>7,371</td>
<td>14.9%</td>
<td>Mahoning Co. OH</td>
<td>3,684</td>
<td>9.8%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>3,306</td>
<td>6.7%</td>
<td>Hancock Co. WV</td>
<td>831</td>
<td>2.2%</td>
</tr>
<tr>
<td>Beaver Co. PA</td>
<td>1,889</td>
<td>3.8%</td>
<td>Stark Co. OH</td>
<td>640</td>
<td>1.7%</td>
</tr>
<tr>
<td>Trumbull Co. OH</td>
<td>1,719</td>
<td>3.5%</td>
<td>Jefferson Co. OH</td>
<td>632</td>
<td>1.7%</td>
</tr>
<tr>
<td>Hancock Co. WV</td>
<td>1,488</td>
<td>3.0%</td>
<td>Beaver Co. PA</td>
<td>443</td>
<td>1.2%</td>
</tr>
<tr>
<td>Allegheny Co. PA</td>
<td>735</td>
<td>1.5%</td>
<td>Trumbull Co. OH</td>
<td>344</td>
<td>0.9%</td>
</tr>
<tr>
<td>Jefferson Co. OH</td>
<td>517</td>
<td>1.0%</td>
<td>Carroll Co. OH</td>
<td>297</td>
<td>0.8%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>464</td>
<td>0.9%</td>
<td>Portage Co. OH</td>
<td>182</td>
<td>0.5%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>453</td>
<td>0.9%</td>
<td>Lawrence Co. PA</td>
<td>152</td>
<td>0.4%</td>
</tr>
<tr>
<td>Portage Co. OH</td>
<td>316</td>
<td>0.6%</td>
<td>Allegheny Co. PA</td>
<td>88</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
### Coshocton

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muskingum Co. OH</td>
<td>1,393</td>
<td>8.4%</td>
<td>Tuscarawas Co. OH</td>
<td>709</td>
<td>5.1%</td>
</tr>
<tr>
<td>Tuscarawas Co. OH</td>
<td>780</td>
<td>4.7%</td>
<td>Muskingum Co. OH</td>
<td>464</td>
<td>3.3%</td>
</tr>
<tr>
<td>Holmes Co. OH</td>
<td>774</td>
<td>4.7%</td>
<td>Guernsey Co. OH</td>
<td>210</td>
<td>1.5%</td>
</tr>
<tr>
<td>Licking Co. OH</td>
<td>536</td>
<td>3.2%</td>
<td>Licking Co. OH</td>
<td>92</td>
<td>0.7%</td>
</tr>
<tr>
<td>Franklin Co. OH</td>
<td>271</td>
<td>1.6%</td>
<td>Knox Co. OH</td>
<td>71</td>
<td>0.5%</td>
</tr>
<tr>
<td>Wayne Co. OH</td>
<td>178</td>
<td>1.1%</td>
<td>Holmes Co. OH</td>
<td>68</td>
<td>0.5%</td>
</tr>
<tr>
<td>Knox Co. OH</td>
<td>100</td>
<td>0.6%</td>
<td>Franklin Co. OH</td>
<td>34</td>
<td>0.2%</td>
</tr>
<tr>
<td>Guernsey Co. OH</td>
<td>94</td>
<td>0.6%</td>
<td>Belmont Co. OH</td>
<td>31</td>
<td>0.2%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>89</td>
<td>0.5%</td>
<td>Washington Co. OH</td>
<td>25</td>
<td>0.2%</td>
</tr>
<tr>
<td>Ross Co. OH</td>
<td>34</td>
<td>0.2%</td>
<td>Harrison Co. OH</td>
<td>18</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Number of workers 16+ years of age living in Coshocton County:** 16,585

**Number of workers 16+ years of age working in Coshocton County:** 13,993

**Percent of workers that work outside the county:** 27.2%

**Average commute time in minutes:** 22.4

### Guernsey

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muskingum Co. OH</td>
<td>1,815</td>
<td>10.9%</td>
<td>Noble Co. OH</td>
<td>1,069</td>
<td>6.9%</td>
</tr>
<tr>
<td>Noble Co. OH</td>
<td>438</td>
<td>2.6%</td>
<td>Muskingum Co. OH</td>
<td>793</td>
<td>5.1%</td>
</tr>
<tr>
<td>Franklin Co. OH</td>
<td>396</td>
<td>2.4%</td>
<td>Belmont Co. OH</td>
<td>466</td>
<td>3.0%</td>
</tr>
<tr>
<td>Belmont Co. OH</td>
<td>318</td>
<td>1.9%</td>
<td>Tuscarawas Co. OH</td>
<td>153</td>
<td>1.0%</td>
</tr>
<tr>
<td>Tuscarawas Co. OH</td>
<td>249</td>
<td>1.5%</td>
<td>Coshocton Co. OH</td>
<td>94</td>
<td>0.6%</td>
</tr>
<tr>
<td>Coshocton Co. OH</td>
<td>210</td>
<td>1.3%</td>
<td>Monroe Co. OH</td>
<td>84</td>
<td>0.5%</td>
</tr>
<tr>
<td>Licking Co. OH</td>
<td>127</td>
<td>0.8%</td>
<td>Washington Co. OH</td>
<td>83</td>
<td>0.5%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>88</td>
<td>0.5%</td>
<td>Morgan Co. OH</td>
<td>80</td>
<td>0.5%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>81</td>
<td>0.5%</td>
<td>Perry Co. OH</td>
<td>56</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cuyahoga Co. OH</td>
<td>52</td>
<td>0.3%</td>
<td>Franklin Co. OH</td>
<td>39</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

**Number of workers 16+ years of age living in Guernsey County:** 16,644

**Number of workers 16+ years of age working in Guernsey County:** 15,528

**Percent of workers that work outside the county:** 26.4%

**Average commute time in minutes:** 23.7

### Harrison

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuscarawas Co. OH</td>
<td>1,410</td>
<td>21.4%</td>
<td>Jefferson Co. OH</td>
<td>383</td>
<td>8.7%</td>
</tr>
<tr>
<td>Jefferson Co. OH</td>
<td>593</td>
<td>9.0%</td>
<td>Belmont Co. OH</td>
<td>280</td>
<td>6.3%</td>
</tr>
<tr>
<td>Belmont Co. OH</td>
<td>361</td>
<td>5.5%</td>
<td>Tuscarawas Co. OH</td>
<td>182</td>
<td>4.1%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>292</td>
<td>4.4%</td>
<td>Carroll Co. OH</td>
<td>160</td>
<td>3.6%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>188</td>
<td>2.9%</td>
<td>Guernsey Co. OH</td>
<td>52</td>
<td>1.2%</td>
</tr>
<tr>
<td>Ohio Co. WV</td>
<td>83</td>
<td>1.3%</td>
<td>Holmes Co. OH</td>
<td>41</td>
<td>0.9%</td>
</tr>
<tr>
<td>Brooke Co. WV</td>
<td>65</td>
<td>1.0%</td>
<td>Stark Co. OH</td>
<td>27</td>
<td>0.6%</td>
</tr>
<tr>
<td>Wayne Co. OH</td>
<td>62</td>
<td>0.9%</td>
<td>Brooke Co. WV</td>
<td>18</td>
<td>0.4%</td>
</tr>
<tr>
<td>Holmes Co. OH</td>
<td>34</td>
<td>0.5%</td>
<td>Allegheny Co. PA</td>
<td>13</td>
<td>0.3%</td>
</tr>
<tr>
<td>Allegheny Co. PA</td>
<td>33</td>
<td>0.5%</td>
<td>Hamilton Co. OH</td>
<td>12</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

**Number of workers 16+ years of age living in Harrison County:** 6,585

**Number of workers 16+ years of age working in Harrison County:** 4,416

**Percent of workers that work outside the county:** 52.4%

**Average commute time in minutes:** 28.8
### Holmes

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayne Co. OH</td>
<td>2,411</td>
<td>14.7%</td>
<td>Tuscarawas Co. OH</td>
<td>1,983</td>
<td>11.3%</td>
</tr>
<tr>
<td>Tuscarawas Co. OH</td>
<td>538</td>
<td>3.3%</td>
<td>Wayne Co. OH</td>
<td>1,247</td>
<td>7.1%</td>
</tr>
<tr>
<td>Ashland Co. OH</td>
<td>352</td>
<td>2.1%</td>
<td>Coshocton Co. OH</td>
<td>774</td>
<td>4.4%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>200</td>
<td>1.2%</td>
<td>Stark Co. OH</td>
<td>480</td>
<td>2.7%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>104</td>
<td>0.6%</td>
<td>Ashland Co. OH</td>
<td>437</td>
<td>2.5%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>76</td>
<td>0.5%</td>
<td>Knox Co. OH</td>
<td>106</td>
<td>0.6%</td>
</tr>
<tr>
<td>Knox Co. OH</td>
<td>72</td>
<td>0.4%</td>
<td>Richland Co. OH</td>
<td>96</td>
<td>0.5%</td>
</tr>
<tr>
<td>Coshocton Co. OH</td>
<td>68</td>
<td>0.4%</td>
<td>Summit Co. OH</td>
<td>39</td>
<td>0.2%</td>
</tr>
<tr>
<td>Richland Co. OH</td>
<td>64</td>
<td>0.4%</td>
<td>Harrison Co. OH</td>
<td>34</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

#### Percent of workers that work outside the county - 26.1%

#### Average commute time in minutes - 21.6

### Jefferson

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooke Co. WV</td>
<td>2,377</td>
<td>8.3%</td>
<td>Brooke Co. WV</td>
<td>1,296</td>
<td>5.0%</td>
</tr>
<tr>
<td>Belmont Co. OH</td>
<td>1,236</td>
<td>4.3%</td>
<td>Belmont Co. OH</td>
<td>1,129</td>
<td>4.4%</td>
</tr>
<tr>
<td>Allegheny Co. PA</td>
<td>1,094</td>
<td>3.8%</td>
<td>Hancock Co. WV</td>
<td>1,007</td>
<td>3.9%</td>
</tr>
<tr>
<td>Hancock Co. WV</td>
<td>784</td>
<td>2.7%</td>
<td>Harrison Co. OH</td>
<td>593</td>
<td>2.3%</td>
</tr>
<tr>
<td>Ohio Co. WV</td>
<td>706</td>
<td>2.5%</td>
<td>Columbiana Co. OH</td>
<td>517</td>
<td>2.0%</td>
</tr>
<tr>
<td>Columbiana Co. OH</td>
<td>632</td>
<td>2.2%</td>
<td>Ohio Co. WV</td>
<td>436</td>
<td>1.7%</td>
</tr>
<tr>
<td>Harrison Co. OH</td>
<td>383</td>
<td>1.3%</td>
<td>Carroll Co. OH</td>
<td>178</td>
<td>0.7%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>265</td>
<td>0.9%</td>
<td>Allegheny Co. PA</td>
<td>175</td>
<td>0.7%</td>
</tr>
<tr>
<td>Stark Co. OH</td>
<td>195</td>
<td>0.7%</td>
<td>Washington Co. PA</td>
<td>171</td>
<td>0.7%</td>
</tr>
<tr>
<td>Beaver Co. PA</td>
<td>154</td>
<td>0.5%</td>
<td>Marshall Co. WV</td>
<td>147</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

#### Percent of workers that work outside the county - 31.3%

#### Average commute time in minutes - 22.2

### Muskingum

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licking Co. OH</td>
<td>2,667</td>
<td>7.1%</td>
<td>Guernsey Co. OH</td>
<td>1,815</td>
<td>4.8%</td>
</tr>
<tr>
<td>Franklin Co. OH</td>
<td>2,078</td>
<td>5.5%</td>
<td>Perry Co. OH</td>
<td>1,451</td>
<td>3.8%</td>
</tr>
<tr>
<td>Guernsey Co. OH</td>
<td>793</td>
<td>2.1%</td>
<td>Coshocton Co. OH</td>
<td>1,393</td>
<td>3.7%</td>
</tr>
<tr>
<td>Perry Co. OH</td>
<td>570</td>
<td>1.5%</td>
<td>Licking Co. OH</td>
<td>1,100</td>
<td>2.9%</td>
</tr>
<tr>
<td>Coshocton Co. OH</td>
<td>464</td>
<td>1.2%</td>
<td>Morgan Co. OH</td>
<td>707</td>
<td>1.9%</td>
</tr>
<tr>
<td>Fairfield Co. OH</td>
<td>211</td>
<td>0.6%</td>
<td>Franklin Co. OH</td>
<td>275</td>
<td>0.7%</td>
</tr>
<tr>
<td>Morgan Co. OH</td>
<td>211</td>
<td>0.6%</td>
<td>Noble Co. OH</td>
<td>274</td>
<td>0.7%</td>
</tr>
<tr>
<td>Delaware Co. OH</td>
<td>80</td>
<td>0.2%</td>
<td>Fairfield Co. OH</td>
<td>158</td>
<td>0.4%</td>
</tr>
<tr>
<td>Noble Co. OH</td>
<td>76</td>
<td>0.2%</td>
<td>Tuscarawas Co. OH</td>
<td>124</td>
<td>0.3%</td>
</tr>
<tr>
<td>Washington Co. OH</td>
<td>72</td>
<td>0.2%</td>
<td>Belmont Co. OH</td>
<td>92</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

#### Percent of workers that work outside the county - 20.9%

#### Average commute time in minutes - 24.2

---

**Note:** The data includes the number of workers 16+ years of age living in each county and the number of workers 16+ years of age working in the county. The percentages indicate the proportion of workers who work outside the county. The average commute time in minutes provides an estimate of the travel time for workers commuting to and from their jobs.
### Tuscarawas

<table>
<thead>
<tr>
<th>Commute Out To</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stark Co. OH</td>
<td>5,707</td>
<td>13.6%</td>
</tr>
<tr>
<td>Holmes Co. OH</td>
<td>1,983</td>
<td>4.7%</td>
</tr>
<tr>
<td>Coshocton Co. OH</td>
<td>709</td>
<td>1.7%</td>
</tr>
<tr>
<td>Wayne Co. OH</td>
<td>688</td>
<td>1.6%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>606</td>
<td>1.4%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>289</td>
<td>0.7%</td>
</tr>
<tr>
<td>Harrison Co. OH</td>
<td>182</td>
<td>0.4%</td>
</tr>
<tr>
<td>Guernsey Co. OH</td>
<td>153</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cuyahoga Co. OH</td>
<td>128</td>
<td>0.3%</td>
</tr>
<tr>
<td>Muskingum Co. OH</td>
<td>124</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commute In From</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stark Co. OH</td>
<td>1,679</td>
<td>4.5%</td>
</tr>
<tr>
<td>Harrison Co. OH</td>
<td>1,410</td>
<td>3.8%</td>
</tr>
<tr>
<td>Carroll Co. OH</td>
<td>840</td>
<td>2.3%</td>
</tr>
<tr>
<td>Coshocton Co. OH</td>
<td>780</td>
<td>2.1%</td>
</tr>
<tr>
<td>Holmes Co. OH</td>
<td>538</td>
<td>1.4%</td>
</tr>
<tr>
<td>Guernsey Co. OH</td>
<td>249</td>
<td>0.7%</td>
</tr>
<tr>
<td>Summit Co. OH</td>
<td>150</td>
<td>0.4%</td>
</tr>
<tr>
<td>Wayne Co. OH</td>
<td>125</td>
<td>0.3%</td>
</tr>
<tr>
<td>Jefferson Co. OH</td>
<td>89</td>
<td>0.2%</td>
</tr>
<tr>
<td>Belmont Co. OH</td>
<td>73</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

**Number of workers 16+ years of age living in Tuscarawas County**: 42,093

**Number of workers 16+ years of age working in Tuscarawas County**: 37,247

**Percent of workers that work outside the county**: 26.8%

**Average commute time in minutes**: 21.6

## Appendix D: Major Employers by County

<table>
<thead>
<tr>
<th>County</th>
<th>Employer Name</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>Barnesville Hospital Association</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Belmont Community Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Belmont County Government</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Belmont County Technical College</td>
<td>Education</td>
</tr>
<tr>
<td></td>
<td>Commercial Vehicle Group/Mayflower</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>East Ohio Regional Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Kroger Co.</td>
<td>Retail</td>
</tr>
<tr>
<td></td>
<td>Ohio Valley Coal Co.</td>
<td>Mining</td>
</tr>
<tr>
<td></td>
<td>State of Ohio</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Wal-Mart Stores, Inc.</td>
<td>Retail</td>
</tr>
<tr>
<td></td>
<td>Wheeling-Pittsburgh Steel Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Carroll</td>
<td>American Axle &amp; Manufacturing Holding</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Ashi Tec Corp./Metaldyne Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Atwood Lake Resort</td>
<td>Recreation</td>
</tr>
<tr>
<td></td>
<td>Carroll Health Care Center, Inc.</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Carrollton Exempt Village Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>GBS Corporation</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Summitville Tiles, Inc.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Columbiana</td>
<td>Bain Capital/American Standard, Inc.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Blackhawk Automotive Plastics, Inc.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Columbiana County Government</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>East Liverpool City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>East Liverpool City Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Fresh Mark, Inc.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Salem City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Salem Community Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Wal-Mart Stores, Inc.</td>
<td>Retail</td>
</tr>
<tr>
<td>Coshocton</td>
<td>AK Steel Holding Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>American Electric Power Co.</td>
<td>Utilities</td>
</tr>
<tr>
<td></td>
<td>Coshocton City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Coshocton County Government</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Coshocton County Memorial Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>Kraft Foods, Inc.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>McWane Corp./Clow Water Systems</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Riverview Local Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Smurfit-Stone Container Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Guernsey</td>
<td>Cambridge City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Colgate-Palmolive Co.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Daimler AG/Detroit Diesel</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Federal-Mogul Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Guernsey County Government</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Plastech Engineered Products</td>
<td>Manufacturing</td>
</tr>
<tr>
<td></td>
<td>Southeastern Ohio Regional Medical Center</td>
<td>Health Care</td>
</tr>
<tr>
<td></td>
<td>State of Ohio</td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Wal-Mart Stores, Inc.</td>
<td>Retail</td>
</tr>
<tr>
<td>Harrison</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>CamOhio LLC</td>
<td>Mining</td>
<td></td>
</tr>
<tr>
<td>Carriage Inn of Cadiz</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Freeport Press, Inc.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Gables Care Center</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Harrison Community Hospital</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Harrison County Government</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Harrison Hills City Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>McDonough Corp./L.J. Smith</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Saint-Gobain/Bayform</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holmes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Foods, Inc.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Collins &amp; Aikman Corp.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>East Holmes Local Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Owens-Illinois, Inc.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Pomerene Hospital</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Robin Industries</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Sperry &amp; Rice Manufacturing Co., LLC</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Wayne-Dalton Corp.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Weaver Leather Goods, Inc.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>West Holmes Local Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jefferson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Electric Power</td>
<td>Utilities</td>
<td></td>
</tr>
<tr>
<td>Buckeye Local Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Edison Local Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>FirstEnergy Corp.</td>
<td>Utilities</td>
<td></td>
</tr>
<tr>
<td>Franciscan University of Steubenville</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Indian Creek Local Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Steubenville City Board of Education</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Titanium Metals Corp./Timet</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Trinity Health System</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Wal-Mart Stores, Inc.</td>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Wheeling-Pittsburgh Steel Corp.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muskingum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 B's, Inc.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>AK Steel Holding Corp.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>AutoZone, Inc.</td>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Dollar General Corp.</td>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Genesis Health Care System</td>
<td>Health Care</td>
<td></td>
</tr>
<tr>
<td>Lear Corp.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Longaberger Co.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Muskingum College</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Muskingum County Government</td>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Owens-Illinois/Owens-Brockway</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Wendy's International/New Bakery Co.</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Zanesville City Board of Education</td>
<td>Government</td>
<td></td>
</tr>
</tbody>
</table>
### Tuscarawas

<table>
<thead>
<tr>
<th>Employer</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamo Group/Gradall Industries</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Allied Machine &amp; Engineering</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Dover City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td>New Philadelphia City Board of Education</td>
<td>Government</td>
</tr>
<tr>
<td>Sanwa Shutter Corp./Genie Co.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Smurfit-Stone Container Corp.</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>Union Hospital</td>
<td>Health Care</td>
</tr>
<tr>
<td>Wal-Mart Stores, Inc.</td>
<td>Retail</td>
</tr>
<tr>
<td>Zimmer Holdings, Inc.</td>
<td>Manufacturing</td>
</tr>
</tbody>
</table>

Employers are listed in alphabetical order.
Appendix E: Postsecondary Institutions

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Address</th>
<th>Telephone</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Center for Education</td>
<td>Pub. Adult Sch.</td>
<td>400 Richards Rd, Zanesville, OH 43701</td>
<td>(740) 455-3111</td>
<td><a href="http://www.mid-east.k12.oh.us">www.mid-east.k12.oh.us</a></td>
</tr>
<tr>
<td>Allegheny Wesleyan College</td>
<td>Four-Year</td>
<td>2161 Woodsdale Rd, Salem, OH 44460</td>
<td>(330) 337-6403</td>
<td>awc.edu</td>
</tr>
<tr>
<td>Belmont Technical College</td>
<td>Two-Year</td>
<td>120 Fox Shannon Pl, Saint Clairsville, OH 43950</td>
<td>(740) 695-9500</td>
<td><a href="http://www.btc.edu">www.btc.edu</a></td>
</tr>
<tr>
<td>Buckeye Joint Vocational School</td>
<td>Pub. Adult Sch.</td>
<td>545 University Dr NE, New Philadelphia, OH 44663</td>
<td>(330) 308-5720</td>
<td><a href="http://www.buckeyecareercenter.org">www.buckeyecareercenter.org</a></td>
</tr>
<tr>
<td>Century School of Cosmetology</td>
<td>Two-Year</td>
<td>434 Market St, Steubenville, OH 43952</td>
<td>(740) 282-3312</td>
<td>century-school.bizhosting.com/</td>
</tr>
<tr>
<td>Columbiana County Vocational School</td>
<td>Pub. Adult Sch.</td>
<td>9364 St Rt 45, Lisbon, OH 44432</td>
<td>(330) 424-9561</td>
<td><a href="http://www.cccctc.k12.oh.us/">www.cccctc.k12.oh.us/</a></td>
</tr>
<tr>
<td>Franciscan University of Steubenville</td>
<td>Four-Year</td>
<td>1235 University Blvd, Steubenville, OH 43952</td>
<td>(740) 283-3771</td>
<td><a href="http://www.franciscan.edu">www.franciscan.edu</a></td>
</tr>
<tr>
<td>Hannah E Mullins School of Practical Nursing</td>
<td>Pub. Adult Sch.</td>
<td>230 North Lincoln Avenue, Suite 3, Salem, OH 44460</td>
<td>(330) 332-8940</td>
<td><a href="http://www.salem.k12.oh.us/mullins/mullins.html">www.salem.k12.oh.us/mullins/mullins.html</a></td>
</tr>
<tr>
<td>Jefferson Community College</td>
<td>Two-Year</td>
<td>4000 Sunset Blvd, Steubenville, OH 43952</td>
<td>(740) 264-5591</td>
<td><a href="http://www.jcc.edu">www.jcc.edu</a></td>
</tr>
<tr>
<td>Kent State University-East Liverpool Campus</td>
<td>Two-Year</td>
<td>400 E 4th St, East Liverpool, OH 43920</td>
<td>(330) 382-7400</td>
<td><a href="http://www.elv.kent.edu">www.elv.kent.edu</a></td>
</tr>
<tr>
<td>Kent State University-Salem Campus</td>
<td>Four-Year</td>
<td>2491 State Route 45 South, Salem, OH 44460</td>
<td>(330) 332-0361</td>
<td><a href="http://www.salem.kent.edu">www.salem.kent.edu</a></td>
</tr>
<tr>
<td>Kent State University-Tuscarawas Campus</td>
<td>Two-Year</td>
<td>330 University Dr N.E., New Philadelphia, OH 44663</td>
<td>(330) 339-3391</td>
<td><a href="http://www.tusc.kent.edu">www.tusc.kent.edu</a></td>
</tr>
<tr>
<td>Muskingum College</td>
<td>Four-Year</td>
<td>163 Stormont Street, New Concord, OH 43762</td>
<td>(740) 826-8114</td>
<td><a href="http://www.muskingum.edu">www.muskingum.edu</a></td>
</tr>
<tr>
<td>Ohio University-Eastern Campus</td>
<td>Four-Year</td>
<td>45425 National Rd W, Saint Clairsville, OH 43950</td>
<td>(740) 695-1720</td>
<td><a href="http://www.eastern.ohiou.edu">www.eastern.ohiou.edu</a></td>
</tr>
<tr>
<td>Ohio University-Zanesville Campus</td>
<td>Four-Year</td>
<td>1425 Newark Rd, Zanesville, OH 43701</td>
<td>(740) 453-0762</td>
<td><a href="http://www.zanesville.ohiou.edu/">www.zanesville.ohiou.edu/</a></td>
</tr>
<tr>
<td>Ohio Valley College of Technology</td>
<td>Two-Year</td>
<td>16808 Saint Clair Ave, East Liverpool, OH 43920</td>
<td>(330) 385-1070</td>
<td></td>
</tr>
<tr>
<td>Trinity Health System School of Nursing</td>
<td>Two-Year</td>
<td>380 Summit Ave, Steubenville, OH 43952</td>
<td>(740) 283-7467</td>
<td><a href="http://www.trinityson.com">www.trinityson.com</a></td>
</tr>
<tr>
<td>Valley Beauty School</td>
<td>Two-Year</td>
<td>627 Main St, Zanesville, OH 43701</td>
<td>(740) 452-6821</td>
<td></td>
</tr>
<tr>
<td>Zane State College</td>
<td>Two-Year</td>
<td>1555 Newark Rd, Zanesville, OH 43701</td>
<td>(740) 454-2501</td>
<td><a href="http://www.zanestate.edu">www.zanestate.edu</a></td>
</tr>
</tbody>
</table>

Source: Integrated Postsecondary Educational Data System (IPEDS), College Opportunities Online (COOL)

http://nces.ed.gov/collegenavigator
### Appendix F: Degree Completers by Program Class for Economic Development Region 10

<table>
<thead>
<tr>
<th>Program Class</th>
<th>Assoc. Degrees</th>
<th>Bachelor’s Degrees</th>
<th>Master’s Degrees</th>
<th>Doctoral Degrees</th>
<th>First-Prof. Degrees</th>
<th>Assoc. Degrees</th>
<th>Bachelor’s Degrees</th>
<th>Master’s Degrees</th>
<th>Doctoral Degrees</th>
<th>First-Prof. Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Agriculture Operations and Related Sciences</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area, Ethnic, Cultural and Gender Studies</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication, Journalism and Related Programs</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications Technologies/Technicians and Support Services</td>
<td>102</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td>120</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer and Information Sciences and Support Services</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal and Culinary Services</td>
<td>32</td>
<td>118</td>
<td>174</td>
<td></td>
<td></td>
<td>33</td>
<td>112</td>
<td>135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Technologies/Technicians</td>
<td>117</td>
<td></td>
<td></td>
<td></td>
<td>137</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Languages, Literatures and Linguistics</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family and Consumer Sciences/Human Sciences</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Professions and Studies</td>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language and Literature/Letters</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal Arts and Sciences, General Studies and Humanities</td>
<td>164</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>171</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library Science</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological and Biomedical Sciences</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi/Interdisciplinary Studies</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parks, Recreation, Leisure and Fitness Studies</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>36</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>46</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theology and Religious Vocations</td>
<td>8</td>
<td>142</td>
<td>31</td>
<td></td>
<td></td>
<td>3</td>
<td>165</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>38</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security and Protective Services</td>
<td>87</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>81</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Administration and Social Service Professions</td>
<td>27</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanic and Repair Technologies/Trades</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precision Production</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual and Performing Arts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Professions and Related Clinical Sciences</td>
<td>469</td>
<td>76</td>
<td>7</td>
<td></td>
<td></td>
<td>527</td>
<td>78</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business, Management, Marketing and Related Support Services</td>
<td>207</td>
<td>112</td>
<td>20</td>
<td></td>
<td></td>
<td>201</td>
<td>111</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total, All Programs</strong></td>
<td>1,333</td>
<td>819</td>
<td>256</td>
<td>0</td>
<td>0</td>
<td>1,415</td>
<td>882</td>
<td>238</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Integrated Postsecondary Educational Data System (IPEDS), College Opportunities Online (COOL)

http://nces.ed.gov/collegenavigator
Office of Workforce Development
P.O. Box 1618
Columbus, OH 43216-1618

Bureau of Labor Market Information
Business Principles for Workforce Development

Partner with the workforce and economic development community.

Develop and deploy new information solution tools and systems for the workforce and economic development community.

Provide products that are customer and demand driven.

Be known as an important and reliable source for information solutions that support workforce development goals and outcomes.

The Workforce Research Section, under the direction of Labor Economist Larry Less, was responsible for the composition of this report. Labor Market Analyst Jonathan Calig was primarily responsible for production. Thanks are extended to the many other analysts who developed and reviewed the data presented herein. This publication was prepared under the supervision of Labor Market Information Bureau Chief Keith Ewald and Assistant Bureau Chief Rudy Wilkinson.

This report was prepared by the Ohio Department of Job and Family Services, Office of Workforce Development. For further information, visit our website at http://lmi.state.oh.us or contact the Ohio Bureau of Labor Market Information at 1-888-2WORK-411 or 1-888-296-7541.

State of Ohio
Department of Job and Family Services
Office of Workforce Development
Bureau of Labor Market Information

Ted Strickland, Governor
Helen E. Jones-Kelley, Director

(10/2007)

ODJFS is an Equal Opportunity Employer and Service Provider