

Advanced Materials and Diversified Manufacturing

Analysis for Mahoning County, Ohio

Industries Included in the Advanced Materials and Diversified Manufacturing Cluster³

- Automobile manufacturing
- Copper wire, except mechanical, drawing
- Iron and steel mills
- All other plastics product manufacturing
- Iron, steel pipe and tube from purchase steel
- Aluminum extruded product manufacturing
- Iron and steel forging
- Machine shops
- Rolled steel shape manufacturing
- Nonferrous metal, except CU and AL, shaping
- Miscellaneous fabricated metal product mfg.
- Metal coating and nonprecious engraving
- Special tool, die, jig, and fixture mfg.

Top 5 Employing Industries

25.14% of Cluster Jobs (2006)

- Aluminum extruded product manufacturing
- Special tool, die, jig, and fixture mfg.
- All other plastics product manufacturing
- Steel foundries, except investment
- Machine shops

(1) Number of individual establishments or physical locations of a certain economic activity.

(2) Location Quotient (LQ) is a statistical measure that compares the concentration of employment in a local industry cluster to the concentration of employment in the same cluster statewide or nationally. An LQ of greater than 1.0 suggests that a locale has a competitive advantage within a cluster and is producing goods or services in excess of the local consumption, thus resulting in exportation of goods or services. An LQ of less than one suggests that an industry is falling behind local demand and is importing the good or service.

(3) Industries included in the five-county Pennsylvania and Ohio region. Not all industries may be present in each individual county.

Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	307
Number of Jobs (2006)	8,608
Net Change in Job Volume (2002-2006)	155
Percent Change in Job Volume (2002-2006)	1.84%
Percent of Total Region Jobs (2006)	6.33%
Average Annual Wages (2006)	\$52,077
Estimated Cluster Payroll (2006)	\$448,279,000
State Location Quotient ² (2006)	0.83
Percent Change from 2002 State Location Quotient	16.67%
National Location Quotient ² (2006)	1.14
Percent Change from 2002 National Location Quotient	17.41%

Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	6.33%
Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>First-line supervisors/managers of production and operating workers</i>	\$22.12
<i>Machinists</i>	\$15.80
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	\$12.47
Helpers--Production workers	\$12.19
<i>Team assemblers</i>	\$10.57

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Aluminum extruded product manufacturing	39.86
Nonclay refractory manufacturing	30.99
Rolling mill machinery and equipment mfg.	25.25
Electric lamp bulb and part manufacturing	19.71
Steel foundries, except investment	18.24

*Top occupations determined by a staffing pattern provided by Economic Modeling Specialists, Inc. (EMSI). Staffing patterns are based on the available NAICS codes at the 6-digit level. Hourly wages are reflective of 2006 averages for Mahoning County, Ohio.

OH/PA 5 County Interstate Region Project:
Columbiana, Lawrence, Mahoning,
Mercer and Trumbull Counties

West Central Job Partnership
44 South Beaver Street
New Castle, PA 16101
724.658.2501 (P)
724.658.4252 (F)

All data was provided by Economic Modeling Specialists, Inc., 2008 (EMSI) for the period 2002 to 2006 and calculated by Central Pennsylvania Workforce Development Corporation, using the Pennsylvania statewide cluster definitions.

Fiscal Agent and Point of Contact for
OH/PA 5 County Interstate Region Project

February 2008

Building and Construction

Analysis for Mahoning County, Ohio

Industries Included in the Building and Construction Cluster³

- Site preparation contractors
- Plumbing and HVAC contractors
- Electrical contractors
- Painting and wall covering contractors
- All other specialty trade contractors
- New single-family general contractors
- Residential remodelers
- Commercial building construction
- Masonry contractors
- Roofing contractors
- Finish carpentry contractors
- Drywall and insulation contractors
- Fabricated structural metal manufacturing
- Highway, street, and bridge construction
- Poured concrete structure contractors
- Plumbing equip. merchant wholesalers

Top 5 Employing Industries

41.86% of Cluster Jobs (2006)

- Plumbing and HVAC contractors
- Painting and wall covering contractors
- Site preparation contractors
- Electrical contractors
- New single-family general contractors

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(3) Industries included in the five-county Pennsylvania and Ohio region. Not all industries may be present in each individual county.

Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	755
Number of Jobs (2006)	9,566
Net Change in Job Volume (2002-2006)	131
Percent Change in Job Volume (2002-2006)	1.39%
Percent of Total Region Jobs (2006)	7.04%
Average Annual Wages (2006)	\$42,557
Estimated Cluster Payroll (2006)	\$407,100,000
State Location Quotient ² (2006)	1.02
Percent Change from 2002 State Location Quotient	-3.33%
National Location Quotient ² (2006)	0.93
Percent Change from 2002 National Location Quotient	-7.21%

Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	6.33%
Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>Construction managers</i>	\$35.29
<i>First-line supervisors/managers of construction trades and extraction</i>	\$24.32
<i>Carpenters</i>	\$18.50
<i>Construction laborers</i>	\$17.77
<i>Painters, construction and maintenance</i>	\$14.27

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Fabricated structural metal manufacturing	3.24
HVAC equip. merchant wholesalers	2.90
Painting and wall covering contractors	2.22
Asphalt paving mixture and block mfg.	2.08
Roofing contractors	2.07

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Business and Financial Services

Analysis for Mahoning County, Ohio

Industries Included in the Business and Financial Services Cluster³

- Janitorial services
- Temporary help services
- Lessors of residential buildings
- Insurance agencies and brokerages
- Telemarketing bureaus
- Commercial banking
- Managing offices
- Landscaping services
- Offices of real estate agents and brokers
- All other professional and technical services
- Offices of lawyers
- Lessors of nonresidential buildings
- Office administrative services
- Other activities related to real estate
- Other accounting services
- Direct property and casualty insurers

Top 5 Employing Industries 28.50% of Cluster Jobs (2006)

- Temporary help services
- Janitorial services
- Lessors of residential buildings
- Insurance agencies and brokerages
- Offices of real estate agents and brokers

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(3) Industries included in the five-county Pennsylvania and Ohio region. Not all industries may be present in each individual county.

Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	1,336
Number of Jobs (2006)	23,876
Net Change in Job Volume (2002-2006)	2,172
Percent Change in Job Volume (2002-2006)	10.01%
Percent of Total Region Jobs (2006)	17.57%
Average Annual Wages (2006)	\$35,974
Estimated Cluster Payroll (2006)	\$858,915,000
State Location Quotient ² (2006)	0.97
Percent Change from 2002 State Location Quotient	2.65%
National Location Quotient ² (2006)	0.90
Percent Change from 2002 National Location Quotient	3.18%

Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	6.33%
Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>Property, real estate, and community association managers</i>	\$27.88
<i>Real estate sales agents</i>	\$23.67
<i>Accountants and auditors</i>	\$21.77
Real estate brokers	\$21.63
Janitors and cleaners, except maids and housekeeping cleaners	\$9.72

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Solid waste landfill	8.44
Telephone answering services	5.03
All other travel arrangement services	3.32
Savings institutions	3.25
Security systems services, except locksmiths	3.18

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Information and Communication Services

Analysis for Mahoning County, Ohio

Industries Included in the Information and Communication Services Cluster³

- Wired telecommunications carriers
- Engineering services
- Newspaper publishers
- Custom computer programming services
- Data processing and related services
- Computer systems design services
- Cellular and other wireless carriers
- Other computer related services
- Cable and other program distribution
- Television broadcasting
- Telecommunications resellers
- Other technical consulting services
- Testing laboratories
- Internet publishing and broadcasting
- Radio stations
- Internet service providers
- Periodical publishers

Top 5 Employing Industries 49.93% of Cluster Jobs (2006)

- Wired telecommunications carriers
- Engineering services
- Custom computer programming services
- Television broadcasting
- Cellular and other wireless carriers

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Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	175
Number of Jobs (2006)	3,547
Net Change in Job Volume (2002-2006)	-4
Percent Change in Job Volume (2002-2006)	-0.12%
Percent of Total Region Jobs (2006)	2.61%
Average Annual Wages (2006)	\$49,210
Estimated Cluster Payroll (2006)	\$174,548,000
State Location Quotient ² (2006)	0.83
Percent Change from 2002 State Location Quotient	1.59%
National Location Quotient ² (2006)	0.69
Percent Change from 2002 National Location Quotient	1.36%

Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	6.33%
Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>Computer software engineers, systems software</i>	\$30.55
<i>Network systems and data communications analysts</i>	\$27.66
<i>Telecommunications equipment installers and repairers, except line in-</i>	\$23.73
<i>Computer support specialists</i>	\$16.51
<i>Customer service representatives</i>	\$12.08

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Internet publishing and broadcasting	5.80
Television broadcasting	2.51
Telecommunications resellers	1.93
Radio stations	1.85
Sound recording studios	1.77

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Industries Included in the Life Sciences Cluster³

- General medical and surgical hospitals
- Nursing care facilities
- Offices of physicians, except mental health
- Home health care services
- Offices of dentists
- Pharmacies and drug stores
- Offices of specialty therapists
- Continuing care retirement communities
- Residential mental retardation facilities
- Outpatient mental health centers
- Homes for the elderly
- Ambulance services
- Other residential care facilities
- Residential mental and substance abuse care

Top 5 Employing Industries 60.27% of Cluster Jobs (2006)

- Nursing care facilities
- General medical and surgical hospitals
- Offices of physicians, except mental health
- Home health care services
- Offices of specialty therapists

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Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	764
Number of Jobs (2006)	17,983
Net Change in Job Volume (2002-2006)	-1,898
Percent Change in Job Volume (2002-2006)	-9.55%
Percent of Total Region Jobs (2006)	13.23%
Average Annual Wages (2006)	\$40,650
Estimated Cluster Payroll (2006)	\$731,009,000
State Location Quotient ² (2006)	1.09
Percent Change from 2002 State Location Quotient	-13.01%
National Location Quotient ² (2006)	1.36
Percent Change from 2002 National Location Quotient	-12.31%

Percent of County Employment (2006)

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Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>Registered nurses</i>	\$24.44
<i>Licensed practical and licensed vocational nurses</i>	\$15.41
<i>Medical secretaries</i>	\$10.60
<i>Nursing aides, orderlies, and attendants</i>	\$9.61
<i>Home health aides</i>	\$8.59

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Ophthalmic goods manufacturing	5.16
Diagnostic imaging centers	4.87
Freestanding emergency medical centers	4.85
Offices of specialty therapists	4.13
All other outpatient care centers	3.54

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Logistics and Transportation

Analysis for Mahoning County, Ohio

Industries Included in the Logistics and Transportation Cluster³

- General freight trucking, long-distance TL
- Other specialized trucking, local
- General freight trucking, local
- General freight trucking, long-distance LTL
- Couriers
- General warehousing and storage
- Line-haul railroads
- Process and logistics consulting services
- Other specialized trucking, long-distance
- Other warehousing and storage
- Freight transportation arrangement
- Used household and office goods moving
- Miniwarehouse and self-storage unit operators

Top 5 Employing Industries 82.50% of Cluster Jobs (2006)

- General freight trucking, long-distance TL
- Other specialized trucking, local
- General freight trucking, long-distance LTL
- Couriers
- General freight trucking, local

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Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Mahoning County
Employer Units ¹ (2006)	122
Number of Jobs (2006)	4,406
Net Change in Job Volume (2002-2006)	809
Percent Change in Job Volume (2002-2006)	22.48%
Percent of Total Region Jobs (2006)	3.24%
Average Annual Wages (2006)	\$42,604
Estimated Cluster Payroll (2006)	\$187,713,000
State Location Quotient ² (2006)	1.10
Percent Change from 2002 State Location Quotient	13.17%
National Location Quotient ² (2006)	1.25
Percent Change from 2002 National Location Quotient	18.13%

Percent of County Employment (2006)

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Building and Construction	7.04%
Business and Financial Services	17.57%
Information and Communication Services	2.61%
Life Sciences	13.23%
Logistics and Transportation	3.24%
Non-Targeted Industries	49.98%

Five Most Common Occupations (2006) and Wages*

West Central Regional high priority occupations are shown in *italics*.

<i>Truck drivers, heavy and tractor-trailer</i>	\$16.45
<i>Bus and truck mechanics and diesel engine specialists</i>	\$15.89
<i>Truck drivers, light or delivery services</i>	\$13.18
<i>Laborers and freight, stock, and material movers, hand</i>	\$11.50
<i>Driver/sales workers</i>	\$11.34

Competitive Industries by National LQ (2006)

Individual industries could demonstrate a high LQ due to the uniqueness of the business's primary function rather than competitiveness factors.

Other specialized trucking, local	4.32
General freight trucking, long-distance TL	2.98
Other warehousing and storage	2.74
General freight trucking, long-distance LTL	1.78
Short line railroads	1.26

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