

# Advanced Materials and Diversified Manufacturing

Analysis for Lawrence County, Pennsylvania

## Industries Included in the Advanced Materials and Diversified Manufacturing Cluster<sup>3</sup>

- 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 37.64% of Cluster Jobs (2006)

- Iron and steel forging
- Iron and steel mills
- All other plastics product manufacturing
- Metal coating and nonprecious engraving
- Motor vehicle body manufacturing

(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)	Lawrence County
Employer Units <sup>1</sup> (2006)	108
Number of Jobs (2006)	3,098
Net Change in Job Volume (2002-2006)	-611
Percent Change in Job Volume (2002-2006)	-16.48%
Percent of Total Region Jobs (2006)	7.35%
Average Annual Wages (2006)	\$59,202
Estimated Cluster Payroll (2006)	\$183,408,000
State Location Quotient <sup>2</sup> (2006)	0.96
Percent Change from 2002 State Location Quotient	-4.48%
National Location Quotient <sup>2</sup> (2006)	1.32
Percent Change from 2002 National Location Quotient	-3.88%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
Building and Construction	10.35%
Business and Financial Services	16.63%
Information and Communication Services	2.21%
Life Sciences	11.78%
Logistics and Transportation	2.34%
Non-Targeted Industries	49.35%

## Five Most Common Occupations (2006) and Wages\*

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

<i>Team assemblers</i>	\$10.80
<i>First-line supervisors/managers of production and operating workers</i>	\$22.56
<i>Laborers and freight, stock, and material movers, hand</i>	\$10.78
<i>Maintenance and repair workers, general</i>	\$14.50
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	\$12.85

## 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.

Ferroalloy and related product manufacturing	153.96
Clay refractory manufacturing	68.06
Iron and steel forging	54.34
Rolling mill machinery and equipment mfg.	30.20
Storage battery manufacturing	23.69

\*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 Lawrence County, Pennsylvania.

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

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

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.

February 2008

# Building and Construction

Analysis for Lawrence County, Pennsylvania

## Industries Included in the Building and Construction Cluster<sup>3</sup>

- 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

**39.63% of Cluster Jobs (2006)**

- All other specialty trade contractors
- Electrical contractors
- New single-family general contractors
- Site preparation contractors
- Cement manufacturing

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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)	Lawrence County
Employer Units <sup>1</sup> (2006)	275
Number of Jobs (2006)	4,363
Net Change in Job Volume (2002-2006)	199
Percent Change in Job Volume (2002-2006)	4.77%
Percent of Total Region Jobs (2006)	10.35%
Average Annual Wages (2006)	\$50,986
Estimated Cluster Payroll (2006)	\$222,452,000
State Location Quotient <sup>2</sup> (2006)	1.49
Percent Change from 2002 State Location Quotient	-0.31%
National Location Quotient <sup>2</sup> (2006)	1.37
Percent Change from 2002 National Location Quotient	-4.31%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
<b>Building and Construction</b>	<b>10.35%</b>
Business and Financial Services	16.63%
Information and Communication Services	2.21%
Life Sciences	11.78%
Logistics and Transportation	2.34%
Non-Targeted Industries	49.35%

## Five Most Common Occupations (2006) and Wages\*

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

<i>Construction managers</i>	\$37.62
<i>First-line supervisors/managers of construction trades and extraction workers</i>	\$21.84
<i>Truck drivers, heavy and tractor-trailer</i>	\$15.63
<i>Carpenters</i>	\$13.88
<i>Construction laborers</i>	\$12.74

## 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.

Cement manufacturing	58.78
Vitreous china and earthenware articles mfg.	27.71
Flat glass manufacturing	21.00
Industrial and commercial fan and blower mfg.	18.13
Air purification equipment manufacturing	9.14

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# Business and Financial Services

Analysis for Lawrence County, Pennsylvania

## Industries Included in the Business and Financial Services Cluster<sup>3</sup>

- 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 39.72% of Cluster Jobs (2006)

- Janitorial services
- Direct property and casualty insurers
- Commercial banking
- Telemarketing bureaus
- Lessors of residential buildings

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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)	Lawrence County
Employer Units <sup>1</sup> (2006)	357
Number of Jobs (2006)	7,014
Net Change in Job Volume (2002-2006)	1,105
Percent Change in Job Volume (2002-2006)	18.70%
Percent of Total Region Jobs (2006)	16.63%
Average Annual Wages (2006)	\$38,787
Estimated Cluster Payroll (2006)	\$272,052,000
State Location Quotient <sup>2</sup> (2006)	0.92
Percent Change from 2002 State Location Quotient	10.57%
National Location Quotient <sup>2</sup> (2006)	0.85
Percent Change from 2002 National Location Quotient	11.14%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
Building and Construction	10.35%
<b>Business and Financial Services</b>	<b>16.63%</b>
Information and Communication Services	2.21%
Life Sciences	11.78%
Logistics and Transportation	2.34%
Non-Targeted Industries	49.35%

## Five Most Common Occupations (2006) and Wages\*

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

Real estate brokers	\$32.50
<i>Insurance sales agents</i>	\$25.32
<i>Accountants and auditors</i>	\$21.30
Tellers	\$9.97
Janitors and cleaners, except maids and housekeeping cleaners	\$8.23

## 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 combustors and incinerators	17.22
Other nonhazardous waste disposal	6.94
Direct property and casualty insurers	6.84
Telemarketing bureaus	4.24
Hazardous waste treatment and disposal	3.73

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# Information and Communication Services

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## Industries Included in the Information and Communication Services Cluster<sup>3</sup>

- 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 74.71% of Cluster Jobs (2006)

- Wired telecommunications carriers
- Newspaper publishers
- Engineering services
- Data processing and related services
- Cable and other program distribution

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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)	Lawrence County
Employer Units <sup>1</sup> (2006)	49
Number of Jobs (2006)	933
Net Change in Job Volume (2002-2006)	-15
Percent Change in Job Volume (2002-2006)	-1.54%
Percent of Total Region Jobs (2006)	2.21%
Average Annual Wages (2006)	\$55,088
Estimated Cluster Payroll (2006)	\$51,397,000
State Location Quotient <sup>2</sup> (2006)	0.71
Percent Change from 2002 State Location Quotient	-0.08%
National Location Quotient <sup>2</sup> (2006)	0.59
Percent Change from 2002 National Location Quotient	-0.30%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
Building and Construction	10.35%
Business and Financial Services	16.63%
<b>Information and Communication Services</b>	<b>2.21%</b>
Life Sciences	11.78%
Logistics and Transportation	2.34%
Non-Targeted Industries	49.35%

## Five Most Common Occupations (2006) and Wages\*

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

Electronics engineers, except computer	\$32.64
<i>Telecommunications line installers and repairers</i>	<i>\$24.67</i>
<i>Telecommunications equipment installers and repairers, except line installers</i>	<i>\$15.24</i>
<i>Customer service representatives</i>	<i>\$13.72</i>
<i>Office clerks, general</i>	<i>\$10.38</i>

## 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.

Wired telecommunications carriers	2.49
Newspaper publishers	1.29
Cable and other program distribution	1.02

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## Industries Included in the Life Sciences Cluster<sup>3</sup>

- 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

### 69.84% of Cluster Jobs (2006)

- General medical and surgical hospitals
- Nursing care facilities
- Offices of physicians, except mental health
- Pharmacies and drug stores
- Continuing care retirement communities

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## Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Lawrence County
Employer Units <sup>1</sup> (2006)	270
Number of Jobs (2006)	4,967
Net Change in Job Volume (2002-2006)	60
Percent Change in Job Volume (2002-2006)	1.23%
Percent of Total Region Jobs (2006)	11.78%
Average Annual Wages (2006)	\$40,022
Estimated Cluster Payroll (2006)	\$198,789,000
State Location Quotient <sup>2</sup> (2006)	0.97
Percent Change from 2002 State Location Quotient	-2.80%
National Location Quotient <sup>2</sup> (2006)	1.21
Percent Change from 2002 National Location Quotient	-2.02%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
Building and Construction	10.35%
Business and Financial Services	16.63%
Information and Communication Services	2.21%
<b>Life Sciences</b>	<b>11.78%</b>
Logistics and Transportation	2.34%
Non-Targeted Industries	49.35%

## Five Most Common Occupations (2006) and Wages\*

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

<i>Registered nurses</i>	\$20.87
<i>Licensed practical and licensed vocational nurses</i>	\$14.44
<i>Office clerks, general</i>	\$10.38
<i>Home health aides</i>	\$9.67
<i>Nursing aides, orderlies, and attendants</i>	\$8.92

## 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.

Family planning centers	11.66
Outpatient mental health centers	4.01
Continuing care retirement communities	2.83
Medical laboratories	2.80
Diagnostic imaging centers	2.79

\*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 Lawrence County, Pennsylvania.

# Logistics and Transportation

Analysis for Lawrence County, Pennsylvania

## Industries Included in the Logistics and Transportation Cluster<sup>3</sup>

- 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 69.24% of Cluster Jobs (2006)

- General freight trucking, long-distance TL
- General freight trucking, local
- Couriers
- Line-haul railroads
- Other specialized trucking, local

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## Cluster Statistics

Based on the North American Industrial Classification System (NAICS)	Lawrence County
Employer Units <sup>1</sup> (2006)	44
Number of Jobs (2006)	985
Net Change in Job Volume (2002-2006)	150
Percent Change in Job Volume (2002-2006)	17.99%
Percent of Total Region Jobs (2006)	2.34%
Average Annual Wages (2006)	\$33,100
Estimated Cluster Payroll (2006)	\$32,604,000
State Location Quotient <sup>2</sup> (2006)	0.79
Percent Change from 2002 State Location Quotient	8.95%
National Location Quotient <sup>2</sup> (2006)	0.90
Percent Change from 2002 National Location Quotient	13.74%

## Percent of County Employment (2006)

Advanced Materials and Diversified Manufacturing	7.35%
Building and Construction	10.35%
Business and Financial Services	16.63%
Information and Communication Services	2.21%
Life Sciences	11.78%
<b>Logistics and Transportation</b>	<b>2.34%</b>
Non-Targeted Industries	49.35%

## 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>	\$15.63
<i>Driver/sales workers</i>	\$10.81
<i>Laborers and freight, stock, and material movers, hand</i>	\$10.78
<i>Truck drivers, light or delivery services</i>	\$9.64
Couriers and messengers	\$8.27

## 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.

Support activities for rail transportation	6.23
Short line railroads	3.55
Line-haul railroads	3.51
Other airport operations	2.54
Other specialized trucking, local	2.03
Other specialized trucking, long-distance	2.03

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