

Quarterly Economy Tracker

A partnership among Keystone College, King's College, Lackawanna College, Luzerne County Community College, Marywood University, Misericordia University, Penn State Wilkes-Barre, The Commonwealth Medical College, The University of Scranton & Wilkes University

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The Economic Tracker is a quarterly publication of The Institute for Public Policy & Economic Development which seeks to explore economic data, trends, and issues related to our region's economy.

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Manufacturing Remains an Important Part of NEPA Economy and has Unique Potential

When discussing the region's economy, a commonly held belief is that manufacturing is in a terminal decline. While deindustrialization and an increase in health, education, and services has been a nationwide economic trend over the past several decades, it is important to understand that here in Northeastern Pennsylvania, manufacturing is still playing a critical role in the regional economy.

With a total of 575 establishments in Lackawanna and Luzerne counties, manufacturing currently employs over 25,000 workers, ten percent of all employment in the region. On average, manufacturing jobs in Lackawanna and Luzerne counties pay nearly \$60,000 per year, more than \$10,000 per year more than the average non-

manufacturing jobs in the region. The tables below show industry-wide statistics and the top five largest industries within the manufacturing sector in terms of employment.

There is projected to be a four percent decline in manufacturing employment regionally between 2015 and 2025. Though employment decline is not a positive indicator, this is a far slower rate of decline compared with the 22 percent job loss in manufacturing employment from 2005 to 2015.

However, these industry-wide trends do not reflect all component industries of the manufacturing sector. While some industries struggle amid structural economic change and offshoring, others thrive due to growing demand, technical innovation, and competitive advantages unique

to Northeastern Pennsylvania, such as the relatively low price of natural gas.

Further, The Institute believes that intervention in the natural forces of the economy can actually grow manufacturing. The Institute, through the support of several local businesses and the natural gas industry developed an economic development strategy to attract manufacturers that use natural gas as a raw material and a heat source. Companies located in our area, because it is adjacent to the shale play can save up to 50 percent of the cost of the natural gas. That competitive edge positions the region as a prime location for business relocation. Since the shale play is generational with wells producing for 50—100 years, the long term economic impact is significant. The Institute

(continued on next page)

Manufacturing Industry Overview - 2015		
Jobs	Establishments	Avg. Earnings Per Job
25,153	575	\$59,319
10% of all regional employment	4.3% of all regional establishments	22% higher than all regional jobs

Largest Manufacturing Industries in Lackawanna and Luzerne Counties - 2015				
Description	Jobs	Establishments	Earnings	% Job Change 2015 - 2025
Food Manufacturing	4,446	70	\$55,939	0 %
Fabricated Metal Product Manufacturing	4,341	118	\$60,823	+ 1%
Plastics and Rubber Products Manufacturing	3,438	39	\$59,148	+ 6%
Miscellaneous Manufacturing	1,880	47	\$54,076	- 14%
Paper Manufacturing	1,553	23	\$57,128	+ 5%

Source: EMSI

Manufacturing *(continued from Page 1)*

has engaged DCED, CAN-DO, Penn's Northeast, and the Greater Scranton and Wilkes-Barre Chambers of Commerce to implement this regional attraction strategy. As this group works collectively to market NEPA and attract new manufacturing concerns, we expect to see increased numbers in manufacturers in the next five to ten years.

The table on page 2 shows the five manufacturing industries with the largest percent job growth from 2015 to 2025. Despite the projected four percent employment decline across manufacturing, there are several industries that expect to see double-digit percent increases in employment over the next decade. Machinery Manufacturing is projected to see a growth of 270 jobs regionally, or 47 percent.

It is also important to note that for those industries with projected employment declines, this is not necessarily a sign of weakness in that industry. Some industries, particularly in manufacturing, may be seeing increased output as a result of automation and innovation, which would allow for

Manufacturing Industries with Greatest Projected Employment Growth - 2015 to 2025			
Description	2015 Jobs	2025 Jobs	10 Year % Change
Machinery Manufacturing	580	850	47%
Textile Product Mills	126	155	23%
Chemical Manufacturing	853	1,019	19%
Nonmetallic Mineral Product Manufacturing	1,110	1,199	8%
Plastics and Rubber Products Manufacturing	3,438	3,650	6%
All Others	19,046	17,267	-9%

Source: EMSI

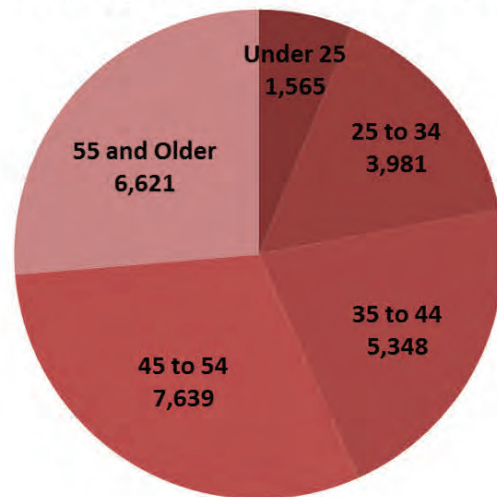
a reduction in the workforce.

There is another positive sign for continued employment opportunities in manufacturing. The chart at right shows the age breakdown for the manufacturing workforce. By 2025, nearly a quarter of the workforce will be at or past retirement age. The loss of workers due to expected retirement between 2015 and 2025 (6,621) is larger than the estimated four percent drop in manufacturing jobs in the region (1,011). This means that well-paying manufacturing jobs will still be available in Northeastern Pennsylvania and that postsecondary education should be readily available to help young people equip themselves to enter the manufacturing workforce. ♦

Additional tables of this data are presented on page 6.

"By 2025, nearly a quarter of the workforce will be at or past retirement age."

Manufacturing Industry Age of Workforce - 2015



Source: EMSI

Rental Housing Costs Rise Amid Wage and Income Stagnation

The last two issues of the Quarterly Economy Tracker included features that highlighted stagnation in both wages and personal income after controlling for inflation. When wages and income do not keep pace with inflation, households lose

purchasing power. This goes on to affect all aspects of the economy, including housing.

Average monthly rents in both counties rose to new highs in 2014. Even after accounting for inflation,

rents in Luzerne County rose by nearly eight percent from 2010 to 2014. The increase was smaller in Lackawanna County.

In both counties, nearly half of renters spend more than 30 percent of household

"Average monthly rents in both counties rose to new highs in 2014."

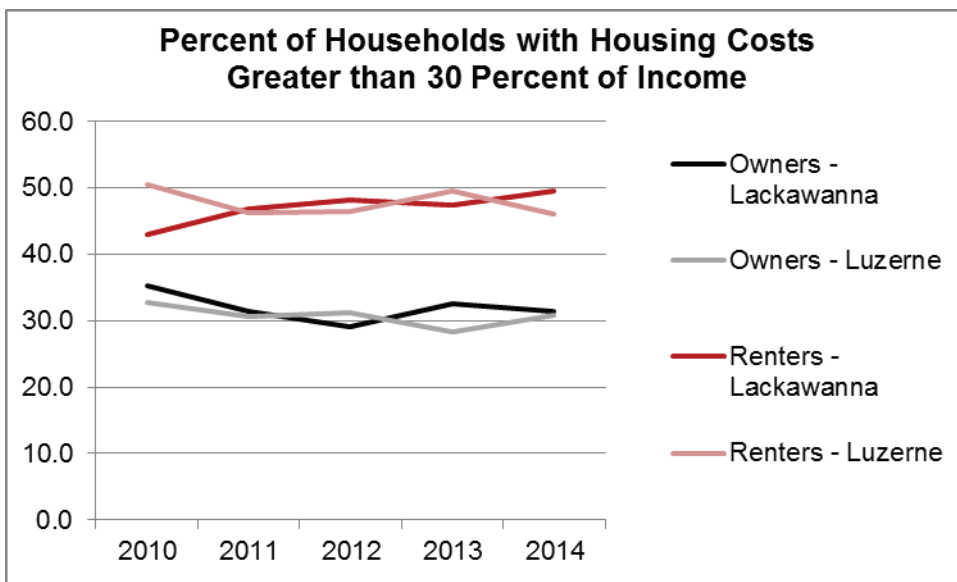
Housing *(continued from Page 2)*

income on rent. However, this percentage has not increased in Luzerne County, where the greatest increase in median rent has been seen. This may reflect some renters opting to move to cheaper housing when faced with significant rent increases.

Despite these trends, housing costs for owners has dropped somewhat amid a significant decrease in median home values since the Great Recession. ♦

Gross Rent % Change: 2010 - 2014 (2014 Inflation Adjusted Dollars)

Lackawanna	1.2%
Luzerne	7.9%



Source: U.S. Census Bureau American Community Survey 1-year Estimates

Cost of Living Index: Regional Cost of Living Index Near Nationwide Average

The Institute collects data as a part of the Cost of Living Index, a nationwide initiative that shows relative price levels across different areas of the country. **The index is based on a selection of goods and services that reflect the purchasing habits of a household in the top fifth of income.** As a result, it is important to note that the Index does not necessarily measure cost of living for all households, but compares cost of living for a specific type of household between regions.

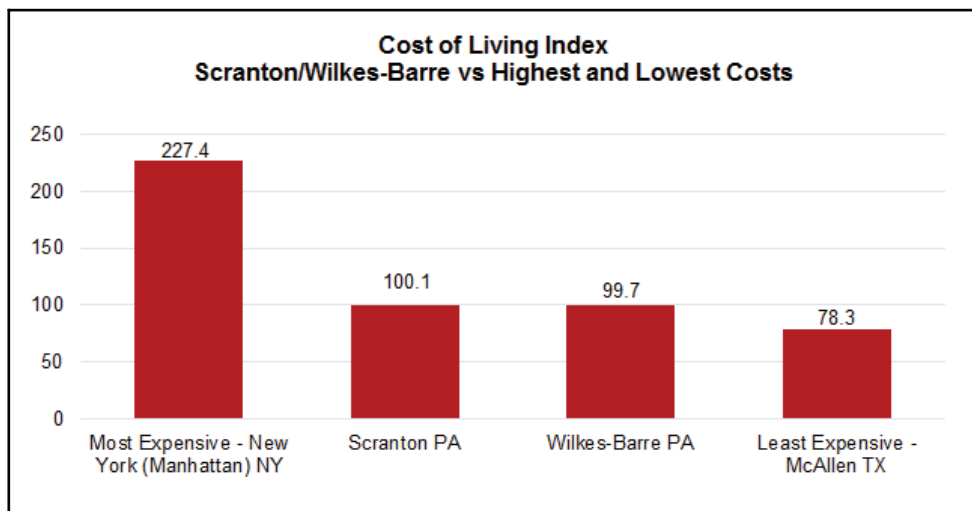
In 2015, 273 urban areas were represented in the index. The national average is set at 100, with scores representing a percentage of the nationwide average of all urban areas for which data was available. In the Scranton area, the Cost of Living Index was 100.1 percent of the nationwide average. In Wilkes-Barre, it was 99.7 percent of the average. The highest of all urban areas

was Manhattan, NY, which came in at more than 227 percent of the average. The lowest was McAllen, TX at about 78 percent.

For specific components of the index, however, cost of living was higher regionally. For utilities, the rate was over 116 percent of the national index in both counties. For transportation costs, the counties ranked around 107 percent.

In Housing, Scranton scored a 91.2 percent, well below the national average, while Wilkes-Barre's housing costs were slightly higher at 101.2 percent.

Healthcare costs are substantially lower than average, particularly in Luzerne County. The region also had a lower cost of living index among miscellaneous goods and services - which includes clothing, household items, personal services, and other items. ♦



Source: Center for Regional Economic Competitiveness Cost of Living Index

Selected Economic Indicators

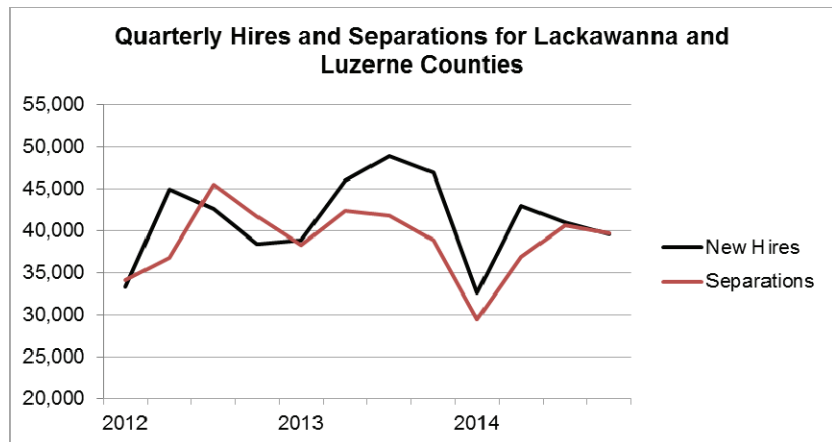
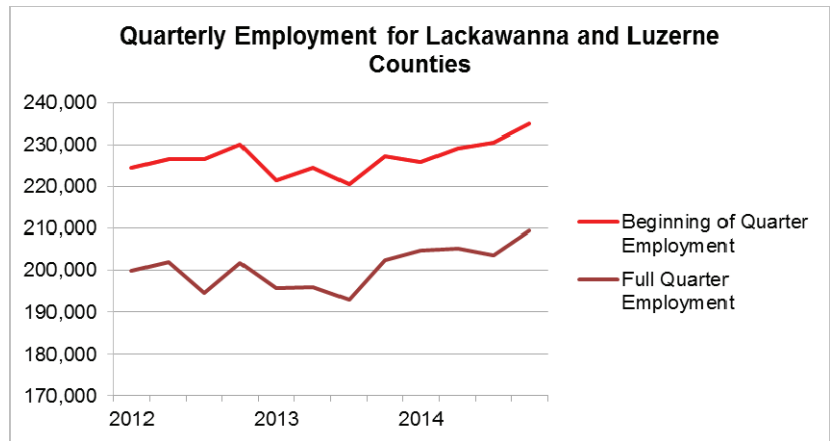
Workforce Indicators

The tables below show key workforce indicators by quarter. Employment is measured quarterly for both jobs at the beginning of the quarter, and full quarter jobs, which lasted for at least the duration of the quarter. At the end of 2014, Lackawanna County had the second highest quantity of beginning of quarter employment since 2012 and the highest full quarter jobs in any quarter since 2012. In Luzerne County, both statistics were higher than in any other quarter analyzed.

Over the time period analyzed, hires (a person starting a new job) and separations (a person leaving a job) fluctuated slightly, but separations outpaced new hires over the last several quarters of 2014 in Lackawanna County. In Luzerne County, the gap between the hires and separations was the lowest it has been since the first quarter in 2013.

The turnover rate measures the rate at which employees begin and end jobs. A higher turnover rate can indicate that workers have more confidence in the job market, and therefore are more willing to leave a job to find a new one. However, it can also indicate instability in the job market.

Data Source: U.S. Census Bureau Local Employment Dynamics Quarterly Workforce Indicators



Quarterly Workforce Indicators - Pennsylvania

	2013				2014				2015
	1	2	3	4	1	2	3	4	1
Employment (Beginning of Quarter)	5,357,556	5,465,056	5,476,944	5,532,174	5,405,511	5,521,501	5,535,776	5,598,186	5,472,838
Employment (Full Quarter)	4,812,417	4,866,132	4,818,736	4,984,072	4,950,536	4,965,829	4,901,986	5,001,110	-
Hires	846,053	1,053,092	991,856	948,011	744,067	949,275	877,113	854,403	683,223
Separations	772,784	874,057	953,574	829,304	632,374	794,436	908,541	872,686	-
Turnover Rate	0.088	0.087	0.089	0.084	0.088	0.080	0.087	-	-

Quarterly Workforce Indicators - Lackawanna County

	2013				2014				2015
	1	2	3	4	1	2	3	4	1
Employment (Beginning of Quarter)	92,999	93,836	90,405	91,695	91,470	93,709	94,642	95,314	92,899
Employment (Full Quarter)	82,508	80,510	78,440	81,193	83,094	83,949	82,700	84,701	-
Hires	16,793	18,272	18,936	20,136	14,319	18,298	17,146	15,844	12,912
Separations	16,131	18,927	17,870	15,946	12,151	15,153	18,157	15,925	-
Turnover Rate	0.106	0.095	0.093	0.092	0.101	0.089	0.092	-	-

Quarterly Workforce Indicators - Luzerne County

	2013				2014				2015
	1	2	3	4	1	2	3	4	1
Employment (Beginning of Quarter)	128,464	130,733	130,020	135,628	134,405	135,450	135,917	139,660	135,893
Employment (Full Quarter)	113,105	115,302	114,458	121,257	121,696	121,368	120,987	124,602	-
Hires	22,099	27,672	29,929	26,792	18,299	24,681	23,819	23,779	17,465
Separations	22,138	23,398	23,968	22,930	17,297	21,738	22,519	23,711	-
Turnover Rate	0.091	0.090	0.093	0.095	0.088	0.077	0.085	-	-

Selected Economic Indicators

Gross Regional Product / Gross Domestic Product

Gross Regional Product measures the total value of all production within a region. Over time, change in GRP (called GDP at the national level) is a useful metric of economic growth. In the region, real GRP (adjusted for inflation) dropped significantly during the Great Recession. It has recovered somewhat, but compared with Pennsylvania as a whole, the metro area has seen minimal overall growth since 2010. However, for the third straight year, goods-producing industries outperformed overall GRP growth in the metro area.

Gross Regional Product for Scranton-Wilkes-Barre-Hazleton MSA (Millions of Chained 2009 Dollars)							
	2008	2009	2010	2011	2012	2013	2014
Total for All Industries	19,918	19,551	20,122	20,126	19,938	20,154	20,322
Private Goods Producing Industries	3,966	3,799	3,753	3,678	3,678	3,792	3,856
Private Services Producing Industries	13,392	13,192	13,855	13,993	13,863	13,974	14,099

Change in Real GRP for Scranton-Wilkes-Barre-Hazleton MSA							
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013 - 2014
Total for All Industries	-3.3%	-1.8%	2.9%	0.0%	-0.9%	1.1%	0.8%
Private Goods Producing Industries	-4.1%	-4.2%	-1.2%	-2.0%	0.0%	3.1%	1.7%
Private Services Producing Industries	-3.8%	-1.5%	5.0%	1.0%	-0.9%	0.8%	0.9%

Statewide GRP Change							
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013 - 2014
Total for All Industries	0.2%	-2.0%	2.3%	1.3%	0.7%	0.7%	1.5%
Private Goods Producing Industries	-3.4%	-7.1%	1.5%	0.2%	0.1%	3.9%	1.7%
Private Services Producing Industries	1.2%	-1.1%	2.8%	2.2%	1.4%	-0.1%	1.7%

Data Source: Bureau of Economic Analysis Regional Economic Accounts

Housing Costs Beat National Average But Taxes Still an Issue

The median home value in both counties are substantially lower than the national average. This is positive in that low house prices contribute to a lower cost of living and lower barriers to entry to the housing market. However, it can be a negative in that it indicates a limitation on the equity of property owners.

Monthly owner costs represent the cost of home ownership, including mortgage payments, taxes, insurance, utilities, fuels, and condominium or mobile home park fees, if applicable. The median monthly owner cost for both counties is lower than the statewide and national median for homes with a mortgage. However, for homes without a mortgage, monthly owner costs in Lackawanna and Luzerne counties were higher than the national median. This indicates that non-mortgage costs, particularly taxes, make up a disproportionately large share of homeownership costs in Lackawanna and Luzerne counties.

In Lackawanna and Luzerne counties, gross rent, which includes utility costs, is also lower than the statewide and national medians.

Since 2013, median home values in the two counties have decreased, while gross rent and monthly owner costs for homes with a mortgage have all increased slightly.

Housing Costs - 2014				
	Lackawanna County	Luzerne County	Pennsylvania	United States
Median Home Value	\$145,900	\$121,700	\$164,900	\$175,700
Median Monthly Owner Costs				
Homes with a Mortgage	\$1,322	\$1,222	\$1,443	\$1,522
Homes without a Mortgage	\$533	\$482	\$495	\$457
Median Gross Rent	\$702	\$688	\$832	\$920

Data Source: U.S. Census Bureau ACS 1-year Estimates

Selected Economic Indicators

Manufacturing Industry Tables

The top table below shows establishments, employment, employment change, and earnings statistics for every manufacturing industry at the 3-digit NAICS level for Lackawanna and Luzerne counties.

Industrywide, there is projected to be a loss of about 1,000 jobs (four percent) over the next decade. However, job change ranges from -85 percent in Computer and Electronic Product Manufacturing to a projected 47 percent growth in machinery manufacturing.

Across all the manufacturing industries, current total earnings per job are consistently higher than the average earnings in other industries. Manufacturing industries with particularly high total earnings in the region are Transportation Equipment Manufacturing, Computer and Electronic Product Manufacturing, Electrical Equipment, Appliance, and Component Manufacturing, and Beverage and Tobacco Product Manufacturing. Each of these industries has average earnings greater than \$70,000 per year, and together account for 11 percent of all manufacturing employment in 2015.

Manufacturing Industry Statistics						
NAICS	Description	2014 Establishments	2015 Jobs	2025 Jobs	2015 - 2025 % Change	Current Total Earnings
311	Food Manufacturing	70	4,446	4,450	0%	\$55,939
312	Beverage and Tobacco Product Manufacturing	14	919	805	-12%	\$71,636
313	Textile Mills	11	393	165	-58%	\$48,630
314	Textile Product Mills	12	126	155	23%	\$43,923
315	Apparel Manufacturing	8	120	106	-12%	\$44,919
316	Leather and Allied Product Manufacturing	1	<10	<10	Insf. Data	Insf. Data
321	Wood Product Manufacturing	21	687	670	-2%	\$46,822
322	Paper Manufacturing	23	1,553	1,629	5%	\$57,128
323	Printing and Related Support Activities	60	1,354	970	-28%	\$47,865
324	Petroleum and Coal Products Manufacturing	2	19	<10	Insf. Data	\$45,178
325	Chemical Manufacturing	24	853	1,019	19%	\$64,297
326	Plastics and Rubber Products Manufacturing	39	3,438	3,650	6%	\$59,148
327	Nonmetallic Mineral Product Manufacturing	36	1,110	1,199	8%	\$57,274
331	Primary Metal Manufacturing	8	802	836	4%	\$62,864
332	Fabricated Metal Product Manufacturing	118	4,341	4,382	1%	\$60,823
333	Machinery Manufacturing	32	580	850	47%	\$66,944
334	Computer and Electronic Product Manufacturing	10	860	125	-85%	\$76,404
335	Electrical Equipment, Appliance, and Component Manufacturing	8	478	324	-32%	\$74,666
336	Transportation Equipment Manufacturing	14	600	606	1%	\$86,428
337	Furniture and Related Product Manufacturing	17	592	589	-1%	\$52,144
339	Miscellaneous Manufacturing	47	1,880	1,608	-14%	\$54,076
31-33	Manufacturing Industry Total	575	25,153	24,142	-4%	\$59,319

Source: EMSI

Selected Economic Indicators

Manufacturing Industry Tables

The table below presents shift-share analysis and location quotients. Shift-share analysis compares projected employment change in the two country region in each industry with the expected change (change that would be expected if the industry followed nationwide trends). The result is the competitive effect, a measure of an industry's competitive advantage in a region. Positive values indicate the region outperforms the expected change (and thus higher competitive advantage); negative values indicate the opposite. The highest competitive effect is in plastics and rubber manufacturing; the lowest is in computer and electronic product manufacturing.

Location quotients measure how concentrated an industry is in the region compared with nationwide by comparing the industry's share of regional employment with its share of national employment. A location quotient above one indicates a greater concentration of an industry than the national average; higher values indicate even stronger concentrations of that industry. The highest location quotient are in Plastics and Rubber Manufacturing (2.90) and Paper Manufacturing (2.47). The lowest is in Leather and Allied Product Manufacturing.

Manufacturing Industry Shift-Share and Location Quotients					
NAICS	Description	2015-2025 Jobs		Competitive Effect	2015 Location Quotient
		Change	Expected Change		
311	Food Manufacturing	4	148	-144	1.71
312	Beverage and Tobacco Product Manufacturing	-114	65	-179	2.43
313	Textile Mills	-228	-81	-147	1.94
314	Textile Product Mills	29	-21	51	0.63
315	Apparel Manufacturing	-14	-49	35	0.51
316	Leather and Allied Product Manufacturing				0.02
321	Wood Product Manufacturing	-17	39	-56	1.07
322	Paper Manufacturing	76	-140	216	2.47
323	Printing and Related Support Activities	-384	-171	-213	1.78
324	Petroleum and Coal Products Manufacturing				0.10
325	Chemical Manufacturing	166	5	161	0.61
326	Plastics and Rubber Products Manufacturing	212	-10	222	2.90
327	Nonmetallic Mineral Product Manufacturing	89	58	31	1.62
331	Primary Metal Manufacturing	34	-5	38	1.17
332	Fabricated Metal Product Manufacturing	41	303	-261	1.72
333	Machinery Manufacturing	270	8	262	0.30
334	Computer and Electronic Product Manufacturing	-735	-32	-703	0.47
335	Electrical Equipment, Appliance, and Component Manufacturing	-154	-19	-135	0.73
336	Transportation Equipment Manufacturing	6	23	-17	0.22
337	Furniture and Related Product Manufacturing	-4	-27	23	0.89
339	Miscellaneous Manufacturing	-272	-20	-251	1.83
31-33	Manufacturing Industry Total	1,012	31	-1,042	1.19

Source: EMSI

Signature Underwriter



The Willary Foundation is a family foundation dedicated to developing ideas and projects that are interesting, creative and imaginative and which benefit communities in Northeastern Pennsylvania. Willary seeks to foster groups with unique, innovative or unusual ideas and efforts.

The Foundation is disposed to leveraging the impact of its grants by encouraging efforts that could have a ripple effect in the community or by supporting projects in conjunctions with other sources of funding. The Foundation wishes to promote the special qualities of the people of Northeastern Pennsylvania.

Supporting Underwriters



A partnership among Keystone College, King's College, Lackawanna College, Luzerne County Community College, Marywood University, Misericordia University, Penn State Wilkes-Barre, The Commonwealth Medical College, University of Scranton & Wilkes University

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Quarterly Economy Tracker Underwriting opportunities available, please contact Teri Ooms at ooms@institutepa.org for more information.

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In all its publications, The Institute uses the most current data available at the time of publication.

Labor Market at a Glance

According to preliminary figures from BLS, in December 2015, the unemployment rate in Lackawanna County was 4.2 percent, and in Luzerne County, it was 4.9 percent. Both counties experienced significant recovery in their unemployment rates from 2013 through 2015. Unemployment in both counties remained higher than the statewide rate, which stood at 4.1 percent in December. The national rate was 4.8 percent.

Total employment in both counties has shown growth. Furthermore, the labor force in both counties was far higher in the fourth quarter of 2015 than the fourth quarter of 2014, indicating that the region is finally seeing a tangible labor market recovery as workers enter the workforce at a strong pace. ♦

Unemployment Rate (Not Seasonally Adjusted)				
	Lackawanna	Luzerne	Pennsylvania	United States
2007	4.8	5.0	4.4	4.8
2008	5.8	6.2	5.3	7.1
2009	8.2	9.0	8.0	9.7
2010	9.0	10.0	8.5	9.1
2011	8.9	9.6	7.9	8.3
2012	8.9	9.8	7.9	7.6
2013	8.4	9.4	7.4	6.5
2014	6.6	7.3	5.8	5.4
Sept '15	5.1	5.7	4.9	4.9
Oct '15	4.8	5.4	4.6	4.8
Nov '15	4.6	5.1	4.4	4.8
Dec '15*	4.2	4.9	4.1	4.8

December 2015 figures are preliminary, except for national rate
 Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics

Labor Force & Employment				
	Lackawanna County		Luzerne County	
	Labor Force	Employment	Labor Force	Employment
2007	106,909	101,792	159,118	151,181
2008	108,526	102,231	161,744	151,642
2009	107,192	98,396	161,298	146,781
2010	106,987	97,402	159,759	143,859
2011	107,292	97,796	159,797	144,474
2012	107,692	98,106	160,883	145,082
2013	107,674	98,648	160,789	145,600
2014	106,676	99,688	158,634	147,126
Sept '15	108,525	102,988	161,141	151,968
Oct '15	108,927	103,658	161,631	152,967
Nov '15	108,999	104,011	161,794	153,471
Dec '15*	108,931	104,316	161,772	153,924

December 2015 figures are preliminary
 Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics

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