

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 Quarterly Economy Tracker is a 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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Region Progressing in Increasing Educated Workforce – Efforts Critical to NEPA's Economic Success

In order for a region to remain economically competitive, it must be able to retain educated and skilled workers. The presence of an appropriately educated and skilled workforce is a major factor in businesses' decisions on where to locate. Furthermore, the presence of a large population of educated workers is associated with increased entrepreneurship and innovation. The term "brain drain" refers to a systemic loss of educated workers who move out of a region to seek better opportunities elsewhere.

The Institute's recent poll of Northeastern Pennsylvania's college and university students (available on www.institutepepa.org) shows that many students, even those who are from the area, are considering leaving the area after graduation. Nearly a quarter of students with home zip codes in Lackawanna and Luzerne counties still don't plan on seeking employment in the region after graduation, and another third are unsure if they will do so.

Research conducted by the Manhattan Institute and featured by CityLab.com ("Brain Gain in the Rustbelt," August 2015) suggested that the tides are

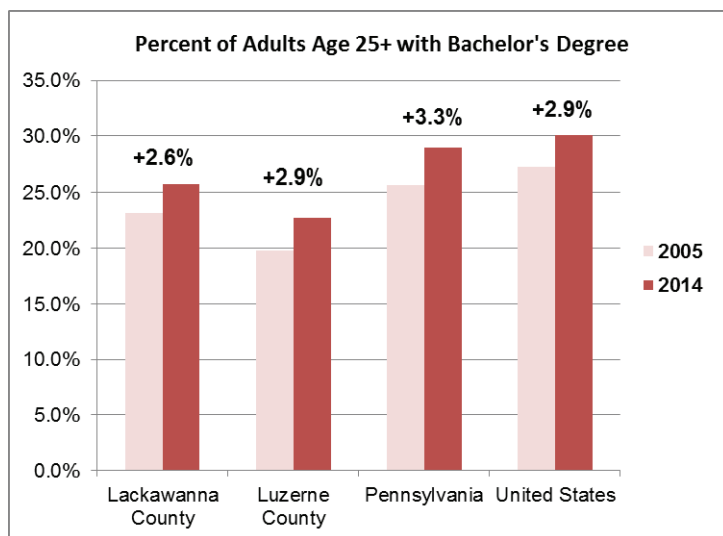
turning for older industrial regions like Northeast PA. The research showed that many rustbelt metros are seeing an increase in their educated and skilled workforce. This phenomenon was referred to as "Brain Gain" in the article.

In Lackawanna and Luzerne counties, the percent of adults age 25+ with at least a bachelor's degree grew by 2.6 percent and 2.9 percent, respectively, from 2005 to 2014. In that ten year period, that statistic grew by 3.3 percent statewide, however. The region remains well below the national and statewide levels of educational attainment. Still, the growth in

bachelor's degree holders has been significant.

Migration data for the region shows that Lackawanna and Luzerne counties have seen a net positive migration of individuals with a bachelor's degree or higher. Between 2007 and 2011, the most recent years for which data is available, 2,818 bachelor's degree holders moved into the region while 2,408 moved out. The positive inflow was most pronounced in Lackawanna County. However, because there has been a positive net migration into

(continued on next page)



Data Sources: US Census Bureau ACS 1-year estimates and 2007-2011 Migration Data

Educated Workforce *(continued from page 1)*

the region regardless of education level, bachelor's degree holders made up almost 29 percent of residents who moved out during that time period but less than 25 percent of all new residents moving in. For Lackawanna County, about 30 percent of in-migrants from 2007 to 2011 held at least a bachelor's degree, substantially higher than the proportion among existing county residents in that time. In Luzerne County, about 21 percent of in-migrants held at least a bachelor's degree, roughly on par with or slightly below the county's overall rate for those years.

Regardless of whether the region is attracting high-talent workers, as the City-Lab article argues, or if the growth among bachelor's degree holders is simply due to local residents achieving higher levels of education, the increase in education

among our local workforce is a positive asset, especially in meeting the workforce needs of the region's health care and education industries.

However, it is also important that the region balance the need for high-education workers with the need for workers with technical skills suited the region's heavy industry. A workforce made up of bachelor's degree holders is not always the most appropriate for the economic base, and in Northeastern Penn-

Percent of Adults 25+ with a Bachelor's Degree or Higher			
	2005	2014	Change
Lackawanna County	23.2%	25.8%	2.6%
Luzerne County	19.8%	22.7%	2.9%
Pennsylvania	25.7%	29.0%	3.3%
United States	27.2%	30.1%	2.9%

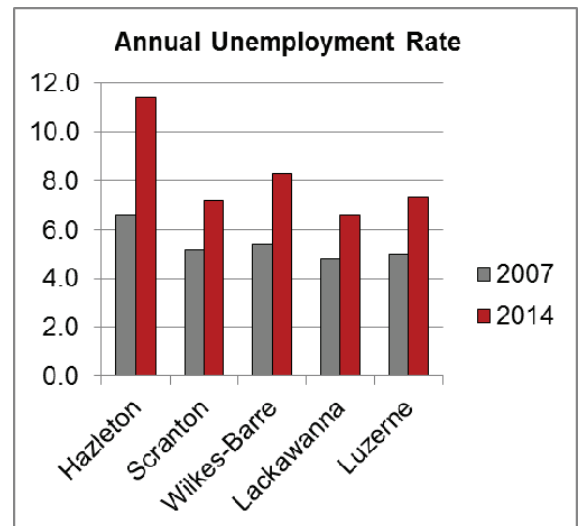
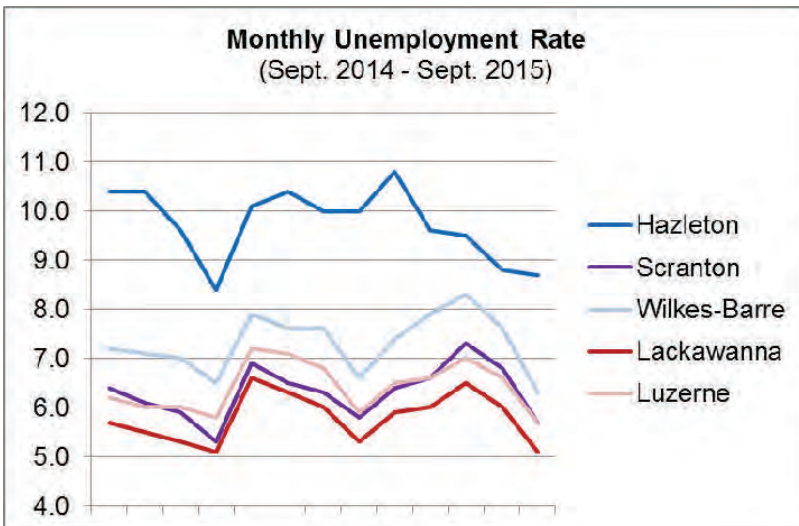
Bachelor's Degree Holders as a % of Total Migration		
	Inflow	Outflow
Lackawanna County	30.2%	31.6%
Luzerne County	20.7%	26.9%
2-county Total	24.7%	28.7%

Migration by Educational Attainment, 2007 - 2011						
	Total Migration			Bachelor's Degree or Higher		
	Inflow	Outflow	Net	Inflow	Outflow	Net
Lackawanna County	4,752	3,300	1,452	1,435	1,043	392
Luzerne County	6,677	5,076	1,601	1,383	1,365	18
2-county Total	11,429	8,376	3,053	2,818	2,408	410

Data Sources: US Census Bureau ACS 1-year estimates and 2007-2011 Migration Data

"The increase in education among our local workforce is a positive asset, especially in meeting the workforce needs of the region's health care and education industries."

City-Level Unemployment Shows Varying Recovery



Data Source: BLS Local Area Unemployment Statistics

The chart at left shows the 13-month monthly unemployment rate for the region's three largest cities and the two counties. Each geographic area has displayed a similar pattern, though Hazleton's unemployment has consistently been higher than any other area. In each area, preliminary figures for September 2015 are lower than in September 2014. The chart at right shows the annual unemployment rate for 2007 and 2014. Despite some recovery since unemployment levels peaked between 2010 and 2012, all three cities and both counties still had higher unemployment in 2014 than in 2007. Furthermore, the differences between the cities and counties are more pronounced in 2014 than in 2007. This indicates that unemployment recovery has occurred unevenly across different areas of the region. ♦

Personal Income Not Keeping Pace with Inflation in Region

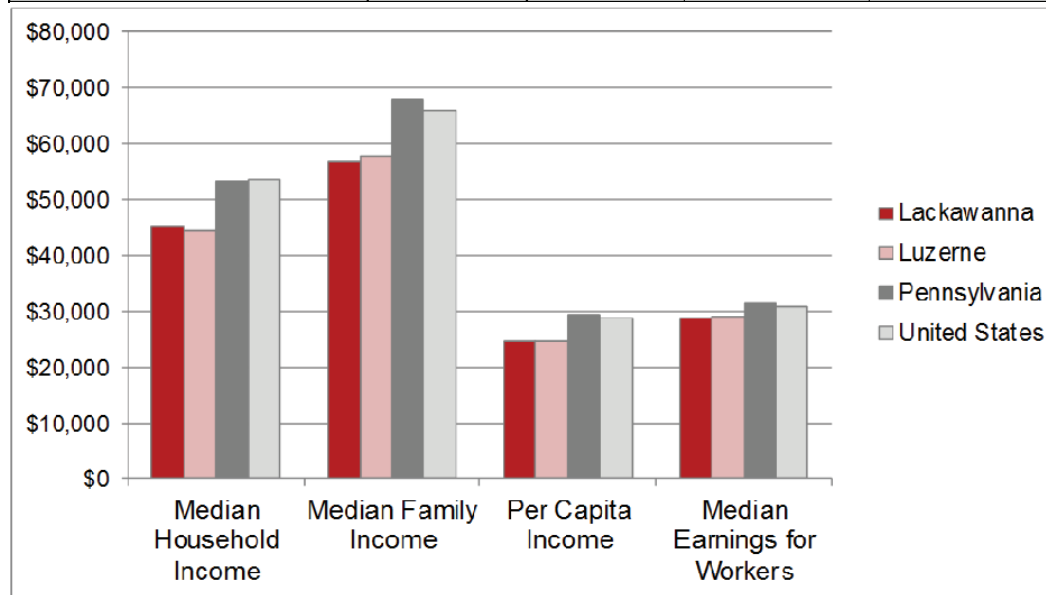
In the last edition of The Institute's Quarterly Economy Tracker, an analysis of inflation-adjusted wage data showed that real wages stagnated in the region through the recession, and only recently showed some signs of real growth. From 2013 to 2014 (the most recent two years for which data is available), inflation-adjusted average weekly wages grew by 1.6 percent in Lackawanna County and 1.7 percent in Luzerne County.

Income is another important measure of how labor market conditions are impacting families and households. Data for 2014 shows that both Lackawanna and Luzerne counties are well behind national and state median incomes for families and households as well as income per capita. The region is behind to a lesser degree in median earnings per worker. Median earnings per worker only measures earnings from employment, whereas the other measures of income include income and benefits from all sources.

In both counties as well as Pennsylvania and the United States, median household income has generally risen over time. This unadjusted or "nominal" income statistic is shown in black and gray for the two counties in the line graph on the right. In Lackawanna County, nominal median household income is 7.3 percent higher in 2014 than in 2010; in Luzerne County, household income grew by 5.8 percent in that time.

However, the dark and light red lines represent inflation-adjusted median household income in 2014 dollars. After

Income Overview - 2014				
	Lackawanna	Luzerne	Pennsylvania	United States
Median Household Income	\$45,265	\$44,311	\$53,234	\$53,657
Median Family Income	\$56,825	\$57,650	\$67,876	\$65,910
Per Capita Income	\$24,547	\$24,737	\$29,220	\$28,889
Median Earnings for Workers	\$28,808	\$29,097	\$31,524	\$30,845

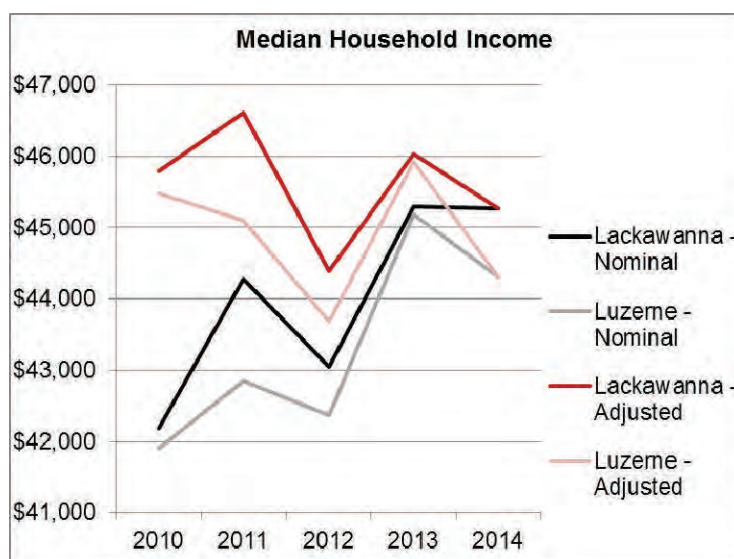


Data Source: US Census Bureau ACS 1-year Estimates, BLS Inflation Calculator

accounting for inflation, median household income is actually lower in 2014 than in 2010 in both counties. This is especially troubling as the rate of the inflation has been relatively low over the past several years compared with past decades, yet income has still not risen enough to keep pace.

With less real income, households in the region have less purchasing power than they did in 2010, which limits their ability to further stimulate and grow the economy. While wages have shown early signs of growing after years of stagnation, it remains to be seen to what degree this will be seen in income statistics in the region. ♦

"After accounting for inflation, median household income is actually lower in 2014 than in 2010 in both counties."



Data Source: US Census Bureau ACS 1-year Estimates, BLS Inflation Calculator

Colleges and Universities Significant Contributors to Region's Economy

Lackawanna and Luzerne counties are home to an array of colleges, universities, and technical schools. These institutions of higher education granted 8,899 degrees to graduates in 2014, down slightly from 2013. These degrees ranged from 1-year and 2-year certificates to bachelors and graduate degrees.

Providing education and training to the workforce is critical to the region's economy, but the impact of the area's post-

secondary institutions goes beyond granting degrees. The employment and income impacts are also significant. In the two counties, employment in higher education accounts for 9,741 jobs as of 2015.

This figure is project to continue growing substantially in the next decade. The area has already seen a significant growth of residents enrolled in college - a 15 percent increase in just one year from 2013 to 2014.

The average earnings per job is \$38,720. This provides total earnings of over \$377 million to these employees. Many of these workers live in the region

and spend their money locally, further growing the economy through the economic multiplier effect. ♦

Jobs (2015)	% Job Growth (2015 - 2024)	Avg. Earnings per Job (2015)
9,741	+ 13.1%	\$38,720

Data includes junior colleges, colleges and universities, professional schools, business schools, and technical/trade schools (NAICS 6112 - 6115)

Data Source: EMSI

Regional Transportation Barriers Limiting Economic Growth

For many low and moderate income families, transportation to work can be a significant barrier to getting ahead. Public transportation is available to some, but cannot possibly accommodate all work schedules and destinations. According to research, car ownership is associated with more work hours and higher earnings (Raphael & Rice 2000). Further, lower income workers generally pay more to own a vehicle due to subprime financing and higher insurance premiums (Plummer 2006).

In Lackawanna and Luzerne counties, 12 and 11 percent of households, respectively,

have no vehicles available. In Lackawanna County, over 60 percent of non-vehicle households have no workers living in the household, and in Luzerne County this figure is 74 percent. This is likely due to the fact that some retired individuals do not have cars. However, it could also point to difficulties finding employment for those without their own transportation.

Among households with at least one worker, 4.8 percent and 4.6 percent in Lackawanna and Luzerne counties, respectively, have no vehicle available. This represents nearly 6,500 households.

A total of 12.7 percent in Lackawanna County and 11.2 percent in Luzerne County have fewer vehicles than workers - another 9,800 households. Not all of these households, of course, are lacking transportation options. Some of those workers may walk or bike to work or use public transportation, and voluntarily opt to live car-free or with fewer vehicles.

However, others are certainly without access to a vehicle due to economic circumstances. In these situations, workers may miss work due to difficulty getting a ride, and their opportunities to change jobs may be limited by exist-

ing public transit routes and the availability of others in the household to provide transportation.

It is important to recognize that transportation challenges present a barrier to upward economic mobility in some of these households. These economic opportunities, in turn, are critical to the economic growth of the region. In order to maximize opportunities for working families, communities in the region can work to enhance walkability and bikability and continue working to provide public transit options where they are feasible. ♦

Household Car Ownership - 2014			
	Lackawanna	Luzerne	Pennsylvania
Total Households	84,280	125,235	4,945,972
Percent of Households with no vehicle available	12.0%	11.0%	11.4%
Percent of Households with at least 1 worker with no vehicle available	4.8%	4.6%	6.4%
Percent of Households with at least 1 worker with fewer vehicles than workers	12.7%	11.2%	13.0%

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

Selected Economic Indicators

Educational Attainment

In both counties as well as the state and nation, educational attainment (highest level of education achieved) has been increasing slowly but steadily. The percentage of residents aged 25 or older with a bachelor's degree or higher is lower in Lackawanna and Luzerne counties than Pennsylvania or the United States. However, The region also has relatively low percentages of residents without a high school diploma. Compared with 2013, educational attainment levels were relatively unchanged; however, the number of graduate or professional degree holders grew by over nine percent in Luzerne County while falling by about two percent in Lackawanna County. Also, both counties saw a substantial decrease in adult residents lacking at least a 9th grade education.

Education Attainment - 2014				
	Lackawanna County	Luzerne County	Pennsylvania	United States
Total Population (Aged 25+)	149,426	226,539	8,858,865	213,725,624
Less than Grade 9	2.2%	3.0%	3.5%	5.6%
Grade 9-12, no diploma	6.7%	8.0%	7.1%	7.5%
High School Graduate or GED	37.9%	38.8%	36.4%	27.7%
Some College, no Degree	18.3%	18.3%	16.2%	21.0%
Associate's Degree	9.2%	9.2%	7.9%	8.2%
Bachelor's Degree	16.3%	13.8%	17.5%	18.7%
Graduate or Professional Degree	9.5%	9.0%	11.4%	11.4%

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

School Enrollment

In both counties, 84,474 children were enrolled in Preschool through High School in 2014, a decline of about 1,000 pupils from 2013. An additional 34,084 individuals were enrolled in college in 2014, an increase of over 4,500 or 15 percent from the year before. The large and growing number of students currently enrolled in college will continue to drive growth of the college-educated workforce in the region.

School Enrollment - 2014		
	Lackawanna County	Luzerne County
Total Population Three Years and Over Enrolled in School	48,864	69,694
Nursery School/Preschool	2,705	3,876
Kindergarten	2,115	3,157
Elementary School	19,184	28,158
High School	9,751	15,528
College	15,109	18,975

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

Degree Completions

Institutions of higher education in the two counties conferred a total of 8,899 certificates and degrees in 2014, a decrease of about three percent from 2013. The number of doctoral degrees granted, however, grew from 252 in 2013 to 329 in 2014, an increase of 30 percent.

In 2014, bachelor's degrees made up 41 percent of all degrees awarded, certificates and associates degrees made up about 30 percent, and graduate degrees made up another 29 percent.

Degree Completions - 2014		
	Lackawanna County	Luzerne County
Certificate (<2 years)	338	569
Associates degree	755	960
Bachelors degree	1,992	1,655
Masters degree	1,128	1,138
Doctoral degree	138	191
Other degrees/certificates	18	17

Data Source: EMSI

Selected Economic Indicators

Fastest Growing Occupations

The tables below show the 10 fastest growing occupations for each county, as defined as the occupations with the greatest total increase in jobs from 2013 to 2015. Personal care aides and home health aides rank among the top growing occupations in both counties, as do manual labor occupations (such as hand laborers, construction laborers, and janitors and cleaners) and service industry occupations (such as food service workers and retail salespersons). Many of the fastest growing occupations do not require 4-year college degrees; however, many require specific certifications and/or technical training.

Fastest Growing Occupations in Lackawanna County				
Occupation	2013 Jobs	2015 Jobs	2013-2015 Change	2013-2015 % Change
Personal Care Aides	1,584	1,766	182	12%
Combined Food Preparation and Serving Workers, Including Fast Food	2,679	2,828	149	6%
Laborers and Freight, Stock, and Material Movers, Hand	2,384	2,527	144	6%
Home Health Aides	1,085	1,201	116	11%
Construction Laborers	573	679	107	19%
Postsecondary Teachers	1,632	1,728	96	6%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,702	1,798	96	6%
Heavy and Tractor-Trailer Truck Drivers	1,409	1,483	74	5%
Emergency Medical Technicians and Paramedics	367	426	58	16%
Telecommunications Line Installers and Repairers	111	167	56	51%

Fastest Growing Occupations in Luzerne County				
Occupation	2013 Jobs	2015 Jobs	2013-2015 Change	2013-2015 % Change
Laborers and Freight, Stock, and Material Movers, Hand	4,572	5,019	447	10%
Personal Care Aides	1,398	1,645	247	18%
Industrial Truck and Tractor Operators	2,060	2,264	205	10%
Customer Service Representatives	3,603	3,788	185	5%
Registered Nurses	3,030	3,213	183	6%
Home Health Aides	1,302	1,469	167	13%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,108	2,255	147	7%
Heavy and Tractor-Trailer Truck Drivers	2,550	2,695	146	6%
Elementary School Teachers, Except Special Education	1,430	1,543	113	8%
Retail Salespersons	4,554	4,666	112	2%

Data Source: EMSI

Selected Economic Indicators

Employment and Job Creation by Traded Cluster

Traded clusters are groups of related industries that serve markets beyond the region in which they are located. They bring new money into the region. In other words, they represent our region's economic base.

Statistics by traded cluster were last examined in the Fall 2014 Quarterly Economy Tracker. Since that time, in Luzerne County, Distribution and eCommerce employment has grown another 23 percent. In Lackawanna County, this cluster saw a small decline in employment and fell from the 2nd to 3rd largest traded cluster by employment. The business services cluster saw significant growth in both counties, especially in Lackawanna County. In both counties, the education and knowledge creation cluster

The charts at right show net job creation between 1998 and 2013 for the five traded clusters with the largest net gains and the five traded clusters with the largest net decline in each county. The expected value shows the net change that would be expected if the counties followed trends in the U.S. as a whole. It can be used to show which clusters have outperformed or underperformed in the region. In both counties, distribution and electronic commerce has showed high growth since 1998 and both exceeded the national growth rate during that time. Business services also saw high net job growth in both counties.

*Data Source: www.clustermapping.us
(A project of Harvard Business School and the
U.S. Economic Development Administration.)*

Employment by Traded Cluster, Luzerne County					
	2011		2013		Percent Change
	Number of Employees	County Rank	Number of Employees	County Rank	
Distribution and Electronic Commerce	9,719	1	11,985	1	23.32%
Business Services	6,054	2	7,237	2	19.54%
Hospitality and Tourism	3,129	4	3,243	3	3.64%
Plastics	3,088	5	2,906	4	-7.13%
Education and Knowledge Creation	3,386	3	2,808	5	-17.07%

Employment by Traded Cluster, Lackawanna County					
	2011		2013		Percent Change
	Number of Employees	County Rank	Number of Employees	County Rank	
Business Services	4,213	3	7,439	1	76.57%
Education and Knowledge Creation	6,420	1	5,862	2	-8.69%
Distribution and Electronic Commerce	5,725	2	5,684	3	-0.72%
Insurance Services	2,334	4	2,702	4	15.77%
Transportation and Logistics	1,208	7	1,287	5	6.54%

Top & Bottom 5 Traded Clusters by Job Creation: Lackawanna County (1998 - 2013)		
Cluster Name	Net Change	Expected Change
Business Services	2,895	2,173
Distribution and Electronic Commerce	2,667	554
Education and Knowledge Creation	1,178	2,607
Transportation and Logistics	722	21
Insurance Services	687	-135
Downstream Metal Products	-460	-327
Plastics	-469	-401
Financial Services	-650	36
Apparel	-1,279	-1,069
Information Technology and Analytical Instruments	-3,235	-1,188

Top & Bottom 5 Traded Clusters by Job Creation: Luzerne County (1998 - 2013)		
Cluster Name	Net Change	Expected Change
Distribution and Electronic Commerce	7,922	746
Electric Power Generation and Transmission	1,870	0
Business Services	1,855	2,573
Medical Devices	1,208	-3
Food Processing and Manufacturing	1,050	-18
Insurance Services	-919	-175
Apparel	-940	-755
Vulcanized and Fired Materials	-1,365	-757
Production Technology and Heavy Machinery	-1,460	-506
Transportation and Logistics	-1,655	107

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. Willary is particularly interested in projects that support leadership and the development of leadership in business, the economy, education, human services, government, the arts, media, and research.

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Labor Market at a Glance

According to preliminary figures from BLS, in September 2015, the unemployment rate in Lackawanna County was 5.1 percent, and in Luzerne County, it was 5.7 percent. Both counties experienced some recovery in their unemployment rates from 2013 to 2014, and this trend continued through the first half of 2015. Unemployment in both counties remained higher than the statewide rate, which stood at 4.9 percent in September, matching the nationwide rate for that month.

Total employment in both counties has shown growth, though to a lesser degree than the drop in the unemployment rate might suggest. Still, total employment in both counties was higher in 2014 than any year since 2008, indicating that the region is finally seeing a tangible labor market recovery. Total employment in both counties is now near pre-recession levels. ♦



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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In all its publications, The Institute uses the most current data available.

Unemployment Rate (Not Seasonally Adjusted)				
	Lackawanna	Luzerne	Pennsylvania	United States
2007	4.8	5.0	4.4	4.6
2008	5.8	6.2	5.3	5.8
2009	8.2	9.0	8.0	9.3
2010	9.0	10.0	8.5	9.6
2011	8.9	9.6	7.9	8.9
2012	8.9	9.8	7.9	8.1
2013	8.4	9.4	7.4	7.4
2014	6.6	7.3	5.8	6.2
June '15	6.0	6.6	5.6	5.5
July '15	6.5	7.0	5.9	5.6
Aug '15	6.0	6.6	5.5	5.2
Sept '15*	5.1	5.7	4.9	4.9

September 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	107,182	98,386	161,298	146,781
2010	108,987	97,402	159,759	143,859
2011	107,292	97,796	159,797	144,474
2012	107,692	98,108	160,883	145,082
2013	107,874	98,848	160,789	145,600
2014	108,876	99,888	158,634	147,128
June '15	108,852	102,123	161,391	150,713
July '15	110,356	103,145	163,659	152,231
Aug '15	108,447	101,887	160,917	150,374
Sept '15*	108,548	103,014	161,190	152,007

September 2015 figures are preliminary.

Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics