



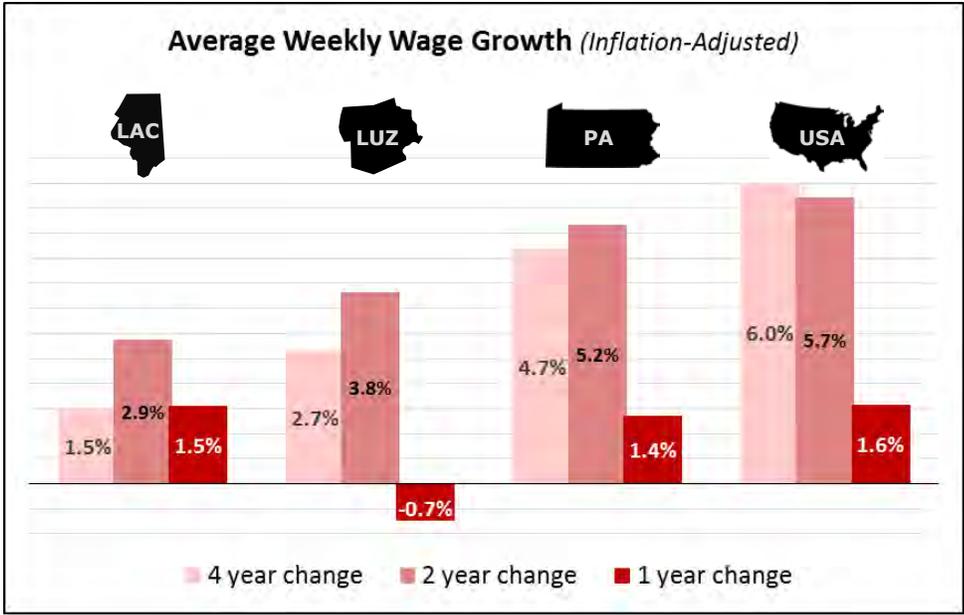
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Amid Workforce Shortage, Are Wages Growing?

By Andrew Chew, Senior Research & Policy Analyst

Nationwide and in Northeastern Pennsylvania, the labor market has tightened considerably in recent years. In Lackawanna and Luzerne counties, the unemployment rate stood at 4.7 and 5.6 percent through the first half of 2018, a modest decline from the prior year and a drop of over four percentage points since 2012. There are two related components driving this trend: growth in jobs, and minimal growth in the size of the labor force.

As the supply of workers shrinks relative to the number of job openings, conventional wisdom suggests that wages would rise accordingly. This has been the case regionally and nationally, as shown in the chart at right. For each year, first quarter wages were used as a basis for comparison; growth was calculated after adjusting for inflation.



Continued on Page 3

The Economy 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. Subscribe at www.institutepa.org to receive an electronic edition of the Tracker free of charge. In all its publications, The Institute uses the most current data available at the time of release.

In This Issue:

Are Wages Growing?	1	Cost of Living Index	5
Labor Market at a Glance	2	Cartography Corner	7
News from The Institute	2	Data Spotlight	8-9
Tax Burden Trends	4	Gender Pay Disparity	10
Labor Market Recovery	5	QET Underwriters	11

Labor Market at a Glance

In July 2018, the unemployment rate in Lackawanna and Luzerne counties stood at 4.9 percent and 5.5 percent, respectively, a decline of over one half of one percentage point compared with the same month the prior year.

Total employment has shown a generally upward growth since significant job losses affected the region from 2008 to 2010. Through the first half of 2018, total employment in both counties outpaced the 2017 annual average by a small margin, and the most recently monthly employment average, from July 2018, shows significant increases over the prior year.

The total labor force also grew in both counties relative to the prior year, though the 2018 year-to-date average does not reflect significant growth from previous years. Amid such a low unemployment rate, the lack of labor force growth appears to be one of the top issues facing the region's economy.

Further, the region continues to have generally higher unemployment rates than the Commonwealth and United States as a whole.

Unemployment Rate (Not Seasonally Adjusted)				
	Lackawanna	Luzerne	Pennsylvania	United States
2009	8.2	9.0	8.0	9.3
2010	9.0	10.0	8.5	9.6
2011	8.8	9.6	7.9	8.9
2012	8.8	9.8	7.8	8.1
2013	8.3	9.4	7.4	7.4
2014	6.6	7.3	5.9	6.2
2015	5.8	6.5	5.3	5.3
2016	5.7	6.3	5.4	4.9
2017	5.1	5.9	4.9	4.4
2018 YTD*	4.7	5.6	4.5	4.1
July 2017	5.7	6.2	5.3	4.6
July 2018	4.9	5.5	4.5	4.1

Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics
*2018 YTD averages are from January through July.

Labor Force & Employment				
	Lackawanna County		Luzerne County	
	Labor Force	Employment	Labor Force	Employment
2009	107,192	98,396	161,298	146,781
2010	106,990	97,405	159,763	143,863
2011	107,274	97,814	159,843	144,500
2012	107,640	98,121	160,855	145,103
2013	107,645	98,710	160,767	145,691
2014	106,718	99,692	159,038	147,381
2015	106,408	100,205	158,764	148,514
2016	106,792	100,755	158,791	148,775
2017	106,305	100,852	158,265	148,913
2018 YTD*	105,996	100,966	157,902	149,088
July 2017	107,173	101,089	159,078	149,266
July 2018	108,447	103,181	161,308	152,379

Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics
*2018 YTD averages are from January through July.

News from The Institute

By Teri Ooms, Executive Director &

Susan Magnotta, Director of Community Outreach

Welcome to the Quarterly Economy Tracker, our review of economic and business trends and analysis. As we are set to begin our fifth year of bringing you the Economy Tracker on a quarterly basis, we are pleased to debut the QET's newly updated design. In addition to the facelift of the publication, we'll be bringing you a quarterly data map in our Cartography Corner feature and more content than ever to help all stakeholders

better understand our region's economy and emerging economic issues affecting our community.

"The Institute Review" has launched!

We are also pleased to announce our new twice-monthly electronic periodical, The Institute Review, which highlights relevant economic, social, equity, health and public policy news from around the globe.

The Institute Review is supported by the Moses Taylor Foundation and the Scranton Area Community Foundation to aid individuals and organizations with decision-making.

To receive The Review, visit www.institutepa.org and subscribe at the bottom of the home page. ♦

Are Wages Growing? –Continued from Page 1

In Lackawanna County, real weekly wages were 1.5 percent higher than the year before as well as four years prior. In Luzerne County, wages were slightly lower in 2018 than the year before, but nearly four percent higher than two years prior. For both counties, two-year and four-year wage growth has been slower than Pennsylvania and the United States, despite the two counties generally having unemployment rate declines on pace with the Commonwealth and nation overall.

Analyzing wage growth by broad industry category also shows a major factor that is likely related to this uneven wage growth: there is significant variation across sectors of the economy in their wage trends.

In both counties, the information sector showed double-digit real wage growth over the past four years. In both counties, the professional and business services and other services categories saw wage growth higher than for all private industry in that county.

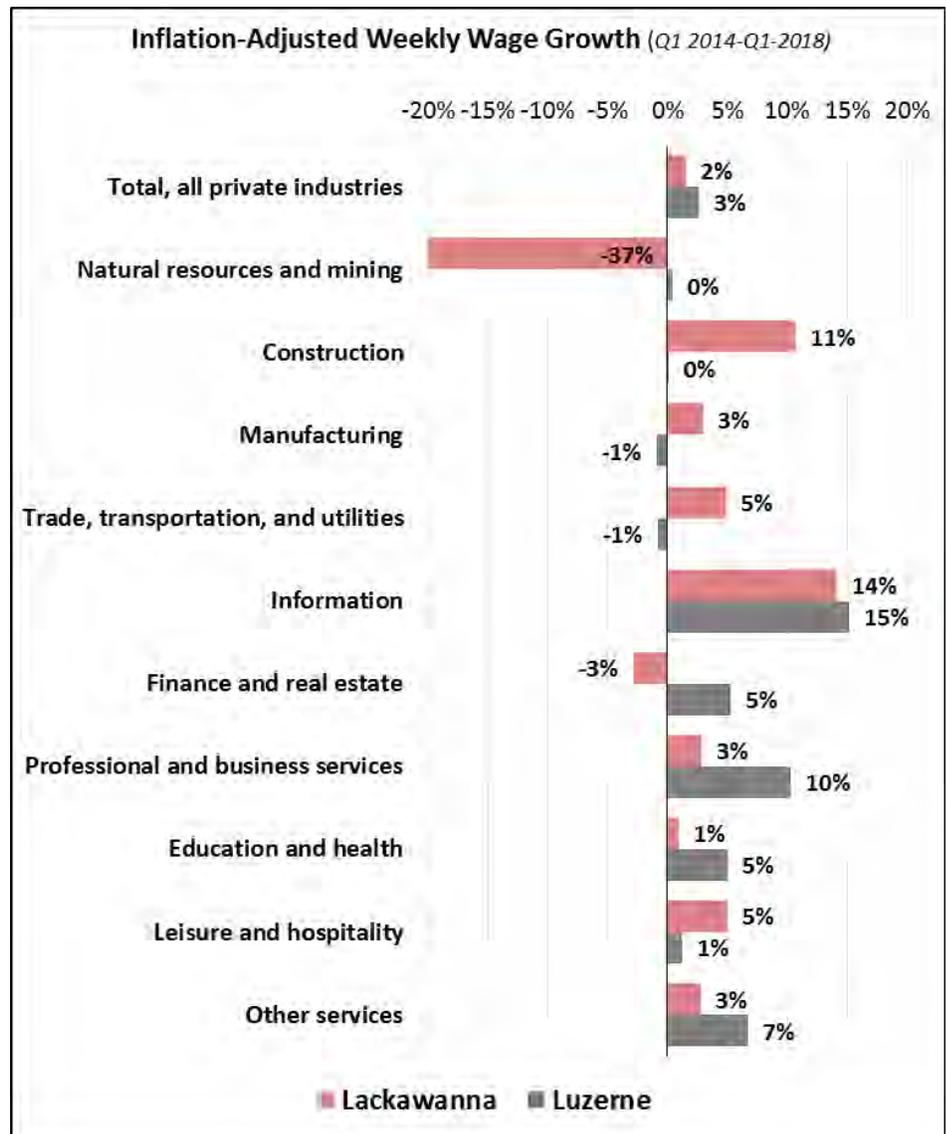
There were also some differences between the two counties. Lackawanna County saw a drop of 37 percent in real wages in the natural resources and mining sector. Lackawanna County also saw wage growth in both the construction and leisure and hospitality industries, while these trends were less apparent in Luzerne County. In Luzerne County, wages grew faster in the education, healthcare, and finance and real estate industries.

Trade, transportation, and utilities, a broad category of industries that includes retail and wholesale merchants as well as warehousing and distribution, has grown substantially in the region in recent years. Lackawanna County saw real wages rise by five percent in this

industry, while Luzerne County saw a small decline.

As would be predicted by the region's tight labor market, wages have shown some real growth in recent years. However, this growth has been uneven across industries.

Nevertheless, over half of the broad industry categories analyzed saw wage growth in both counties over the past four years after adjusting for inflation, suggesting that wage growth is widespread, though uneven, in the region's economy. ♦



"For both counties, two-year and four-year wage growth has been slower than Pennsylvania and the United States, despite the two counties generally having unemployment rate declines on pace with the Commonwealth and nation overall."

Property Tax Burden Trends Upward, While Impact of Federal Tax Reform Remains Unclear

By Andrew Chew, Senior Research & Policy Analyst & Wyatt Cox, Research Intern, Wilkes University

County-level data from the Internal Revenue Service showed that over 250,000 households in the county reported over \$13.5 billion in income in 2016, the most recent year for which data is available.

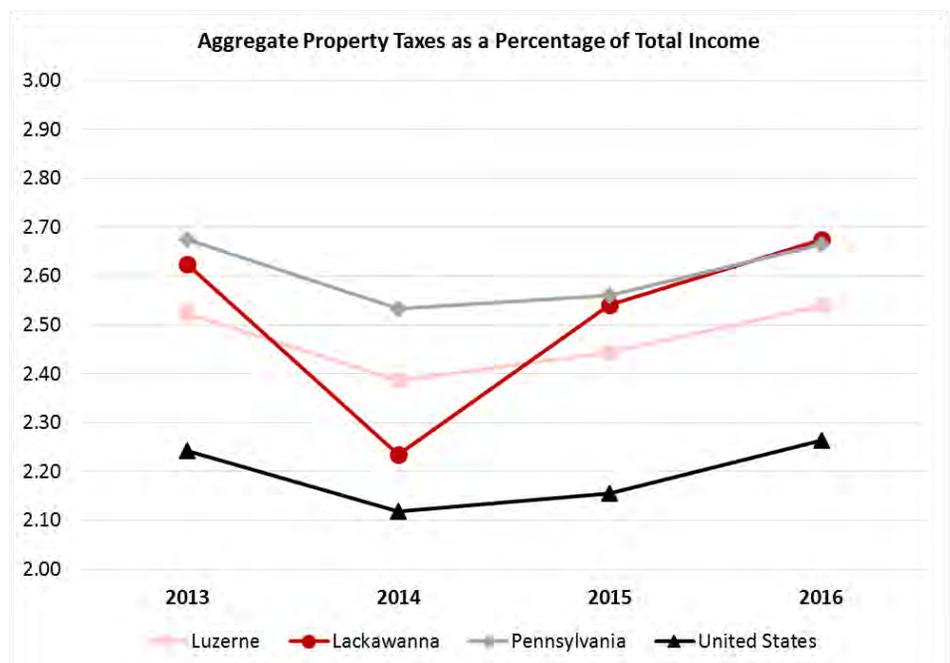
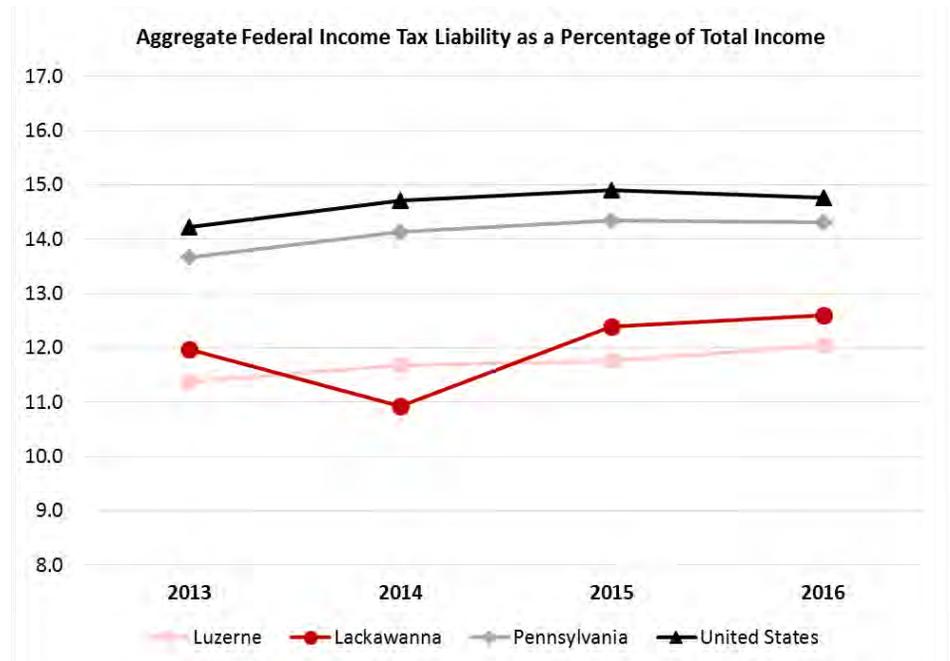
In 2016, the aggregate total federal income tax liability was 12 percent of total aggregate income in Luzerne County, and 12.6 percent in Lackawanna. In both counties, this ratio was lower than the state and national statistics. This is likely due to the region's generally lower income. Due to the structure of the federal income tax code, higher aggregate income is generally associated with a higher effective tax rate.

The ratio of the total federal income tax liability to real income increased somewhat from 2013 through 2016, for both counties. Furthermore, the impacts of the federal tax reform bill passed in 2017 are not yet apparent; a decrease in this ratio is likely, but the magnitude of the change is unclear.

Most recently, real property taxes paid by households in the two counties amounted over \$350 million, an approximately 5 percent increase from \$332 million in 2013 (both figures are in 2016 dollars).

As a percentage of aggregate total income, property taxes paid amounted to nearly 2.7 percent statewide and in Lackawanna County and over 2.5 percent in Luzerne, compared with about 2.3 percent nationally. In the two counties and Pennsylvania, aggregate property taxes as a percentage of total income have trended upward since 2014. ♦

"Property taxes paid by households in the two counties amounted over \$350 million, an increase from \$332 million in 2013."



An Inclusive Recovery? For Many Workers, a Second Chance

By Christopher Ritter, Research Analyst

Over the last few decades, communities across Northeastern Pennsylvania have struggled to cultivate a diversified workforce due to the effect of widespread deindustrialization on the region’s blue-collar employment base. As of 2017, approximately 24.4 percent of employed individuals in Lackawanna and Luzerne counties over the age of 25 have earned a bachelor’s degree or higher. However, in Northeastern Pennsylvania, some of the biggest beneficiaries of the economic recovery following the Great Recession have been found in a historically declining portion of the regional

workforce: workers who earned less than a high school degree.

According to the U.S. Census Bureau’s Quarterly Workforce Indicators, workers who have earned less than a high school degree in the Scranton/Wilkes-Barre/Hazleton metropolitan statistical area (comprising of Lackawanna, Luzerne, and Wyoming counties) have enjoyed 34 percent of employment gains from 2007 to 2017 despite comprising just 11 percent of the regional workforce. Moreover, the rate at which these individuals are entering the regional

workforce has inched upward (from 51 to 53 percent), despite modest declines from workers in every other category of educational attainment. Even during the Great Recession, workers without a high school degree were more active workforce participants than any other category of educational attainment, as the number of employed shrank by just 2.5 percent (compared to 5.2, 3.5, and 2.8 percent for high school, associate’s degree, and bachelor’s/advanced degree graduates, respectively).

(continued on the next page)

Employment in Scranton - Wilkes-Barre - Hazleton MSA, Workers Age 25 and Over					
Educational Attainment	2007	2012	2017	# Change	% Growth
Less than High School	18,037	19,519	24,246	6,209	34.4%
High School or Equivalent, No College	70,926	68,153	69,837	-1,089	-1.5%
Some College or Associate's Degree	65,912	65,984	68,922	3,010	4.6%
Bachelor's Degree or Advanced Degree	50,319	51,314	52,600	2,281	4.5%

Source: U.S. Census Bureau, Quarterly Workforce Indicators (2017)

Labor Participation Rates, Lackawanna and Luzerne		
Educational Attainment	2012	2016
Less than High School	51.3%	52.9%
High School or Equivalent, No College	72.1%	70.5%
Some College or Associate's Degree	80.8%	79.8%
Bachelor's Degree or Advanced Degree	87.1%	86.7%

Source: American Community Survey (2016)

Cost of Living Falls Relative to National Average

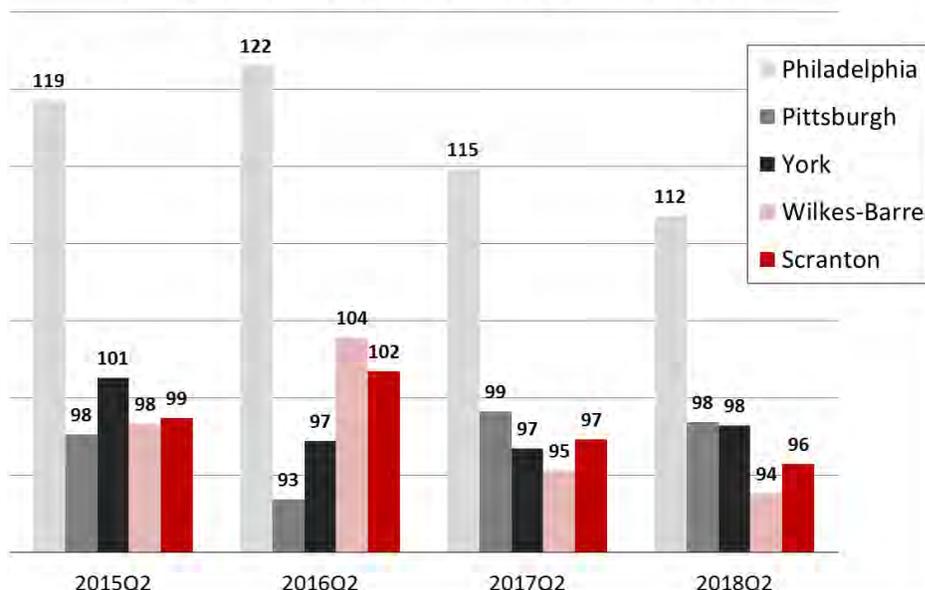
By Andrew Chew, Senior Research & Policy Analyst & William Gorman, Research Intern, University of Scranton

The Cost of Living Index for Wilkes-Barre and Scranton stood at 94 and 96, respectively, compared to the national benchmark of 100. Two other metro areas in the Commonwealth, Pittsburgh and York, had slightly higher index scores, while Philadelphia was higher than the national average at 112.

The region’s cost of living has shown small declines relative to the national average since 2016. The other Pennsylvania cities have seen their scores either decline or remain largely unchanged since 2015.

The Cost of Living Index includes prices for goods and services in several categories: groceries, housing, utilities, transportation, health care, and miscellaneous goods and services. ♦

Composite Cost of Living Index Q2 2015 - Q2 2018



Source: Cost of Living Index—Center for Regional Economic Competitiveness (www.coli.org)

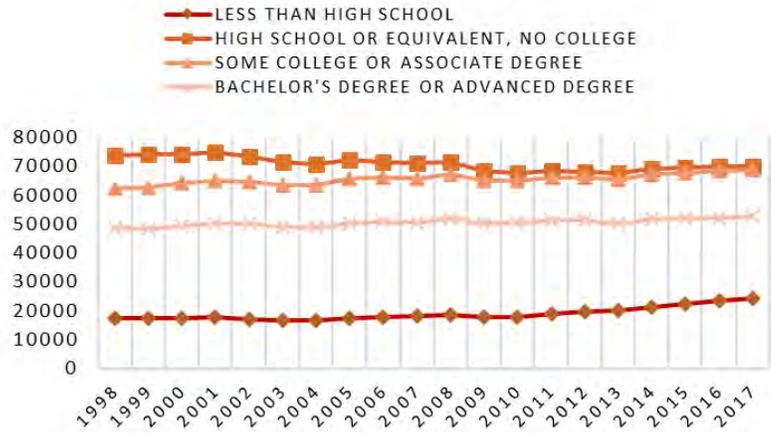
An Inclusive Recovery *(continued from previous page)*

Employment gains by educational attainment have also grown unevenly over the last two decades. While employment growth for workers without high school degrees averaged just 3.4 percent between 1998 and 2007, such gains skyrocketed by 31 percentage points to 34.4 percent from 2007 to 2017. This reflects a broader trend nationwide, as employment has risen by nearly 28 percent for workers without a high school degree across the country. However, while American workers of all educational backgrounds have enjoyed employment growth from 2007 to 2017 (at an average of 6 percent for workers with at least a high school degree), opportunities for more educated workers in Northeastern Pennsylvania have remained comparatively more modest. From 2007 to 2017, high school graduates have registered a 2 percent decline in employment, while employment among individuals with an associate’s degree rose 4.6 percent, and those with a bachelor’s degree or higher have experienced 4.5 percent employment growth.

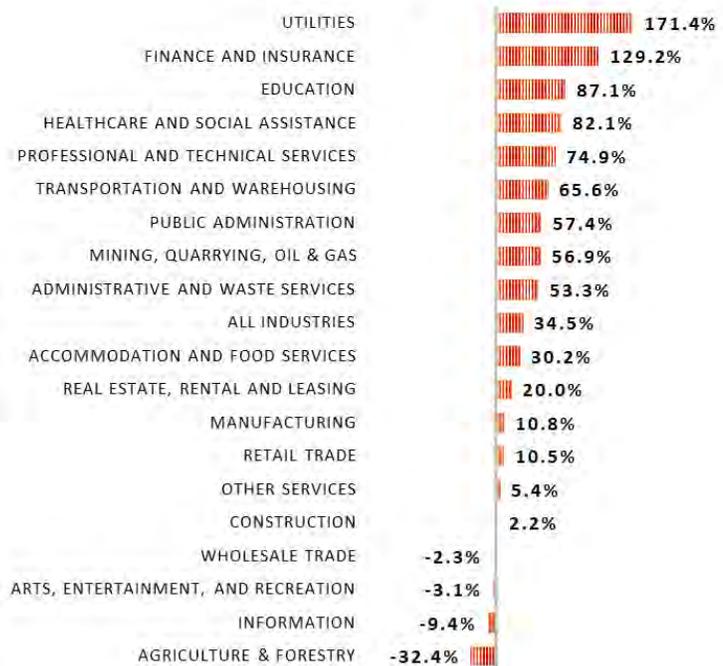
Employment gains for regional workers without a high school degree have been observed across a wide variety of industries. While positions in Healthcare and Social Assistance industries have generated the highest number of jobs for these workers (approximately 1,621 jobs from 2007 to 2017), utilities industries have generated the largest percentage of employment growth for these workers (at 171.4 percent), followed by finance and insurance (129.2 percent), education (87.1 percent), and professional and technical services (74.9 percent).

Despite this impressive growth however, many obstacles obviously remain for workers without a high school degree. In Lackawanna and Luzerne counties, these workers earn just \$20,507 per year on average, compared to \$27,521 for high school graduates, \$32,760 for associate’s degree graduates, \$45,687 for college graduates, and \$60,425 for professional degree graduates. Additionally, nearly 27 percent of these workers live in poverty— nearly double the rate of high school graduates and over six times the rate of college graduates. Finally, the unemployment rate of these workers remains stubbornly high, at 8.3 percent as of 2017, compared to 3.9 percent across the region overall. While entering the workforce remains challenging for the dwindling number of regional workers without a high school degree, recent data suggests that the broad-based nature of recent labor market gains may afford a crucial second chance to workers in the most desperate need of one. ♦

EMPLOYMENT BY EDUCATION (WORKERS AGE 25+)



EMPLOYMENT BY INDUSTRY, HIGH SCHOOL LEAVERS

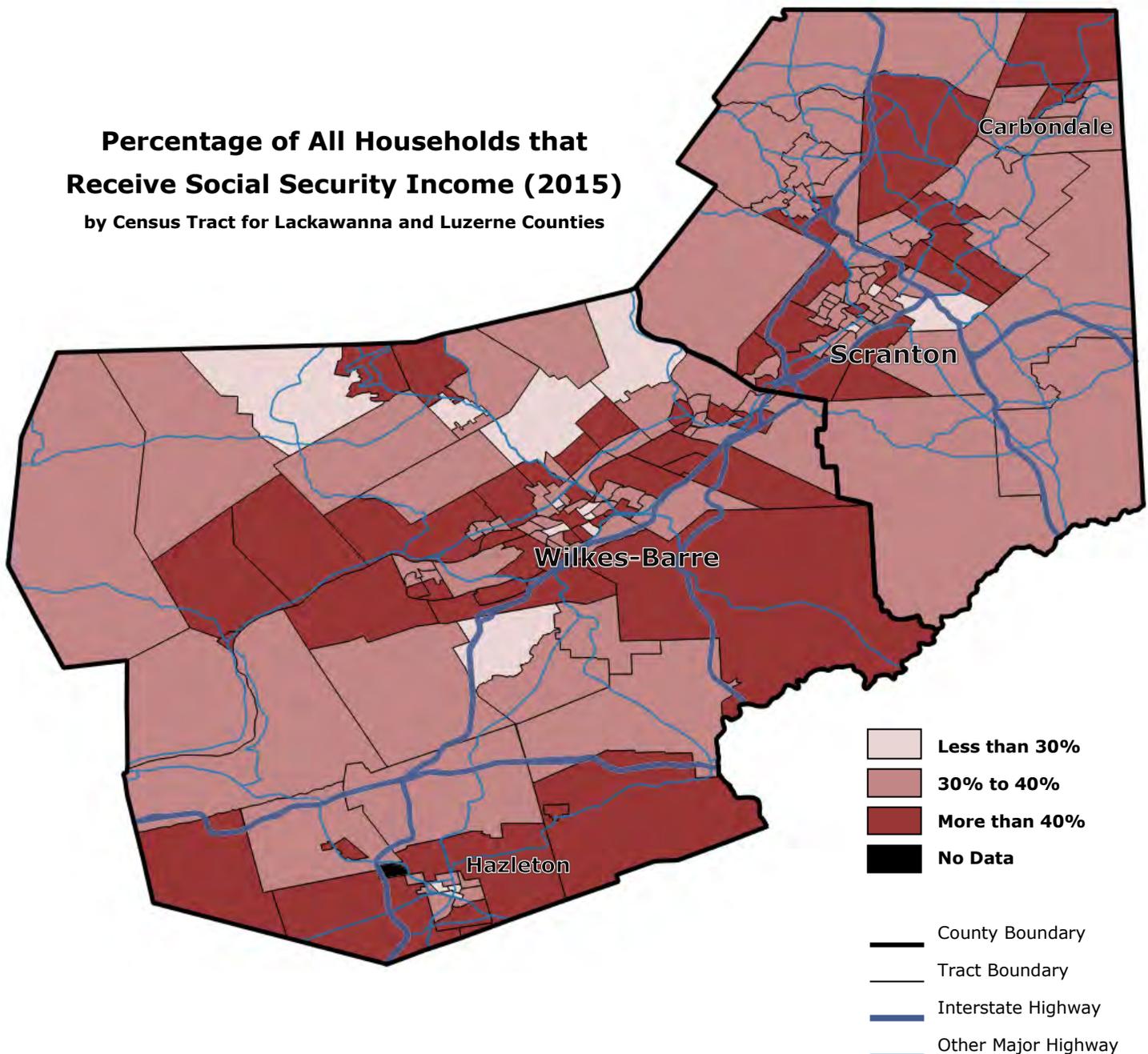


Source: U.S. Census Bureau, Quarterly Workforce Indicators (2017)

Cartography Corner

Where Are Households with Social Security Income?

This map shows the relative concentration of households that receive Social Security income. Households receiving Social Security income may or may not have income from other sources. Many of the census tracts with the highest concentrations of Social Security recipient households are in the more rural parts of the counties; however, the downtown areas of both Wilkes-Barre and Scranton each also have a disproportionate share of such households, as do several other urban tracts in and around Wilkes-Barre and Hazleton. This is likely due to the concentration of senior apartment complexes in the region's downtowns.



Source: U.S. Census Bureau American Community Survey (2015) 5-year Estimates

Data Spotlight

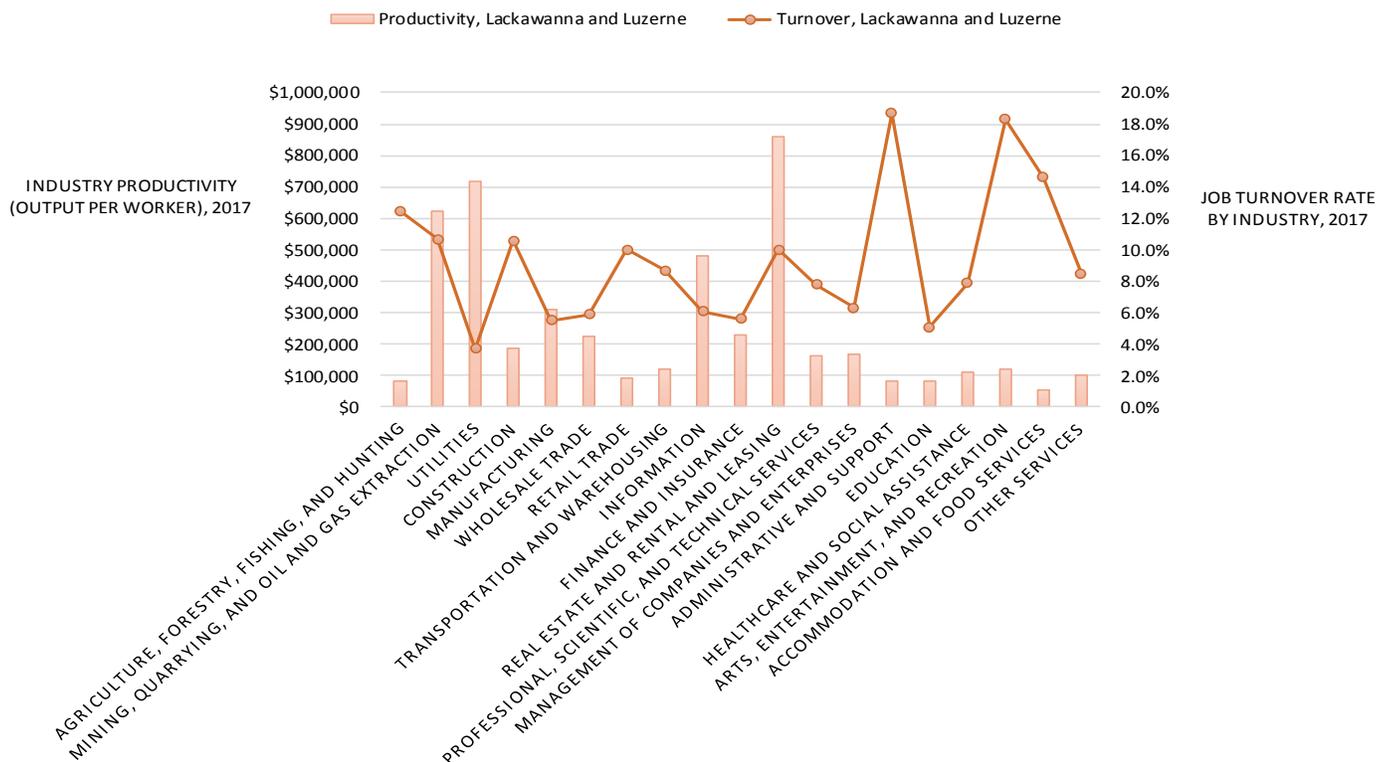
Regional Productivity and Labor Turnover by Industry

The dataset below analyzes the interaction between worker productivity (the measurement of the total output per worker within each industry) and labor turnover (the rate at which employees depart an organization and are replaced) among industries in Lackawanna and Luzerne counties. It finds that the most productive industries in the region enjoy a more stable workforce through lower job turnover rates. In many circumstances, industries marred by high turnover, whether due to occupational stress, injury, or other factors, can be harmed if skilled workers are replaced with novices. Thus, high turnover contributes not only to shorter employee turnover, but also potentially hampers employer productivity.

Regional workers in real estate, rental, and leasing professions are considered the most financially productive among workers in all other industries, generating approximately \$862,000 in output by each worker. Other productive workers by industry in the region include those in utilities (\$718,000), mining, quarrying, and oil and gas extraction (\$625,000), and information (\$482,000). Industries with the lowest outputs per worker include accommodation and food services (\$56,000), education and administrative support (\$83,000), agriculture, forestry, fishing and hunting (\$84,000), and retail trade (\$92,000).

In Lackawanna and Luzerne counties, industries with the highest staff turnovers include administrative and support positions (18.7 percent), arts, entertainment, and recreation (18.3 percent), accommodation and food services (14.6 percent), and agriculture, forestry, fishing, and hunting (12.5 percent). Industries with the lowest employee turnover include wholesale trade (5.9 percent), finance and insurance (5.6 percent), manufacturing (5.5 percent), education (5.1 percent), and utilities (3.7 percent).

HOW DOES INDUSTRY PRODUCTIVITY COMPARE TO JOB TURNOVER?



Source: Chmura Economics, accessed via JobsEQ

Data Spotlight

Wage Growth by Industry

The tables below show the most recent four years of wage data for Lackawanna and Luzerne Counties, as analyzed in this issue's cover story, "Amid Workforce Shortage, Are Wages Growing?" All data are inflation-adjusted in 2018 dollars.

In both counties, the Leisure and Hospitality industry group consistently has the lowest wages, while Finance and Real Estate has the highest. Both counties have likewise seen consistent growth in Construction and Information sector wages. The complete data also shows differences between one year, two-year, and four-year percentage change in each industry group. The Natural Resources and Mining industry group in Lackawanna County saw a steep wage decline between the first quarter of 2014 and the first quarter of 2016, the most dramatic change of any sector in either county.

Average Weekly Wages for Lackawanna County - 2018 Dollars

High-Level Industry Group	Q1 2014	Q1 2016	Q1 2017	Q1 2018	4 year change	2 year change	1 year change
Total, all private industries	777	767	777	789	1.5%	2.9%	1.5%
Natural resources and mining	1321	698	699	830	-37.2%	18.9%	18.7%
Construction	1081	990	986	1196	10.6%	20.8%	21.3%
Manufacturing	894	1006	910	920	2.9%	-8.5%	1.1%
Trade, transportation, and utilities	655	661	689	687	4.9%	3.9%	-0.3%
Information	992	991	1041	1132	14.1%	14.2%	8.7%
Finance and real Estate	1389	1314	1364	1349	-2.9%	2.7%	-1.1%
Professional and Business Services	782	767	788	804	2.8%	4.8%	2.0%
Education and Health	828	813	832	836	1.0%	2.8%	0.5%
Leisure and Hospitality	280	294	302	294	5.0%	0.0%	-2.6%
Other Services	516	531	545	530	2.7%	-0.2%	-2.8%

Average Weekly Wages for Luzerne County - 2018 Dollars

High-Level Industry Group	Q1 2014	Q1 2016	Q1 2017	Q1 2018	4 year change	2 year change	1 year change
Total, all private industries	792	783	819	813	2.7%	3.8%	-0.7%
Natural resources and mining	1017	1039	1039	1021	0.4%	-1.7%	-1.7%
Construction	987	888	935	988	0.1%	11.3%	5.7%
Manufacturing	1009	977	1028	1000	-0.9%	2.4%	-2.7%
Trade, transportation, and utilities	770	749	795	764	-0.8%	2.0%	-3.9%
Information	949	971	990	1093	15.2%	12.6%	10.4%
Finance and Real Estate	1247	1251	1306	1313	5.3%	5.0%	0.5%
Professional and Business Services	742	758	815	818	10.2%	7.9%	0.4%
Education and Health	828	855	861	869	5.0%	1.6%	0.9%
Leisure and Hospitality	338	330	339	342	1.2%	3.6%	0.9%
Other Services	490	496	504	523	6.7%	5.4%	3.8%

Source: Chmura Economics, accessed via JobsEQ

Regional Gender Pay Disparity Smaller than PA, US

By Kara McGrane, Research Assistant

According to the National Women’s Law Center, the wage gap, or the difference in pay between a man and woman has improved since mid-20th century. Over the last decade, there has been an increase in women’s wages of 2.9 cents, elevating the women’s to men’s earnings ratio by 80 percent. The gap fluctuates depending on additional identifying characteristics. In this article, the wage gap will be highlighted by racial differences, motherhood, and geography.

After aggregating and averaging salary data broken down by gender in the American Community Survey data from 2017, there is an average wage gap (measured in median annual earnings) of \$9,902 in the Northeastern Pennsylvania Region, which includes Lackawanna and Luzerne counties. As of 2017, men earned an average of \$38,079 and women \$28,176. The region’s gender wage gap was the smallest in both absolute dollars and as a percentage of overall earnings, 30 percent, of all regions in the Commonwealth. The region with the largest gap, the southwest, is 26 percent larger than the national average. Pennsylvania’s wage gap is larger than the national average by 4 percent.

Minority women’s to men’s pay ratio is larger than white women and women overall, as shown in the table below, with data sourced from the National Women’s Law Center. Motherhood acts as a further contributor towards wage disparities; mothers have lower earning ratios compared to non-mothers across all racial and ethnic groups.

Latinas, both mothers and not, have the worst pay ratio, state-wide and

Median Earnings in Past 12 Months								
Geography	Pennsylvania Regions						PA	USA
	NE	SE	NC	SC	NW	SW		
Overall	\$32,754	\$38,411	\$29,438	\$34,182	\$28,829	\$32,160	\$35,000	\$33,646
Male	\$38,079	\$45,860	\$35,833	\$40,894	\$34,834	\$40,147	\$41,182	\$40,228
Female	\$28,176	\$31,955	\$23,803	\$28,440	\$23,335	\$25,661	\$29,255	\$28,737
Wage Gap	\$9,902	\$13,905	\$12,031	\$12,453	\$11,500	\$14,486	\$11,927	\$11,491
Wage Gap %	30%	36%	41%	36%	40%	45%	34%	34%

Source: U.S. Census Bureau American Community Survey 2017

Median Income by Sex for Luzerne and Lackawanna Block Groups				
Median Income Range	Block groups by male salary range		Block groups by female salary range	
\$0-\$14,999	13	3%	38	9%
\$15,000-\$24,999	51	12%	166	38%
\$25,000-\$34,999	136	32%	180	41%
\$35,000-\$49,999	171	40%	45	10%
\$50,000-\$64,999	46	11%	5	1%
\$65,000-\$74,999	6	1%	0	0%
\$75,000 and above	5	1%	0	0%

Source: U.S. Census Bureau American Community Survey 2017

nationally, with women only making 54 cents to a white non-Hispanic man’s dollar; Latina mothers earned only 46 cents on the dollar nationally.

There are 571,006 single mothers in Pennsylvania, 9,784 in Lackawanna, and 17,330 in Luzerne. This is not to say that single women are much further ahead. Typically those who work year round, full-time are paid 76 cents for every dollar a year round, full-time working man earns, according to National Women’s Law Center. ♦

“The region’s gender wage gap was the smallest in both absolute dollars and as a percentage of overall earnings, 30 percent, of all regions in the Commonwealth.”

Women's Earnings as a Percentage of Mens' Earnings by Race/Ethnicity and Motherhood												
	Women overall		Black Women		Latinas		Native Women		Asian Women		White, non-Hispanic Women	
	All	Mothers	All	Mothers	All	Mothers	All	Mothers	All	Mothers	All	Mothers
PA	79	70	68	58	57	50	60	50	80	78	78	72
USA	80	71	63	54	54	46	57	50	87	85	79	69

National Women's Law Center Wage Gap State Rankings 2018

*Earnings for mothers compared to earnings of fathers.

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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.

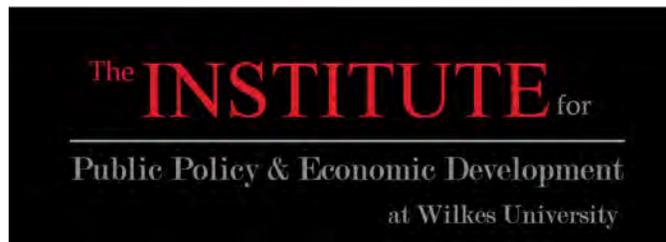
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