

ERIE

**Economic Research
Institute of Erie**

ERIE is a research center of the
Black School of Business at Penn State Behrend

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ELI Erie
Leading
Index

3RD QUARTER 2017 REPORT

ELI Experiences First Quarterly Decline Since June 2016

**Decreases in Erie Manufacturing
Employment and the U.S.
Interest Rate Spread Contributed
to ELI's Slight Descent**



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ELI Stumbles as the Local Economy Struggles to Adapt to Manufacturing Job Losses

Like the falling autumn leaves, the Erie Leading Index (ELI) has experienced a gentle descent this quarter, decreasing by about 1.0%. ELI has not seen a decrease since the 1st quarter of 2016. Because ELI is designed to signal turning points in the local economy, the decline in the index is a pattern we want to avoid in the upcoming quarters.

Contributing to ELI's tumble is the continued decrease in local manufacturing employment, which fell by 2.5% (500 jobs) year-over-year in June. This followed a 3.5% year-over-year decrease (700 jobs) in May. On a seasonally adjusted basis, Erie manufacturing employment fell by 1.2% (240 jobs) during the 2nd quarter.

The latest statistics from the Pennsylvania Department of Labor and Industry indicate that, although Erie manufacturing employment increased (on a seasonally unadjusted basis) between April and July, this positive trend has since been reversed. The number

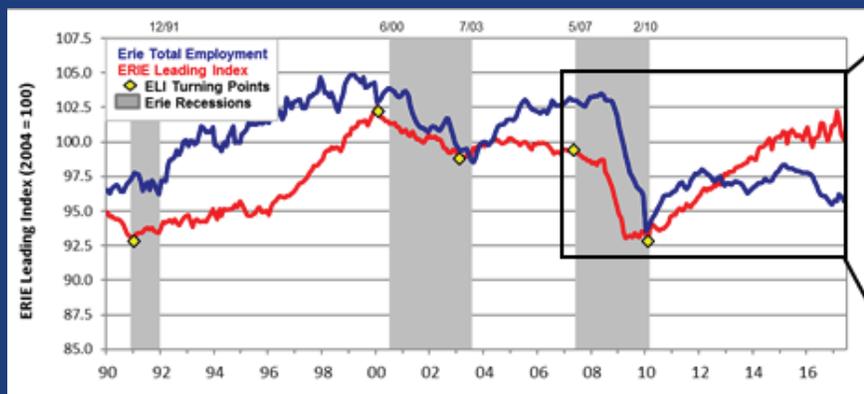
of manufacturing jobs once again fell between July and August and currently stands at 19,600, about 0.5% (100 jobs) below where it was a year ago.

It appears that manufacturing employment in Erie has yet to stabilize, and it is not clear when that will occur. In July, GE announced that it was planning to cease locomotive production in Erie by the end of 2018, transferring the work to its Fort Worth, Texas plant. After a 60-day "decision bargaining" period between union and management representatives, no agreement has been reached to try to save the 570 local manufacturing jobs that are expected to be lost. Unfortunately, this is likely to create additional turbulence for the Erie economy in the months ahead and may make it more difficult for ELI to resume the upward path that it has enjoyed over the past year.

The good news is that there were job gains in other sectors of the local economy during the first half of the

year. For example, the number of jobs expanded by 20.5% (2,700 jobs) in the leisure and hospitality sector; by 22.2% (800 jobs) in the mining, logging, and construction sector; by 5.4% (800 jobs) in the retail trade sector; and by 5.1% (500 jobs) in the professional and business services sector. As a result, the total number of nonfarm jobs edged up 0.3% (400 jobs) on a seasonally adjusted basis during the first half of the year, with an additional increase of 0.8% (1,000 jobs) between June and August to reach its current level of 129,600.

Erie's seasonally adjusted unemployment rate has also gradually fallen to 5.5% in August compared to 6.9% a year ago. However, this has been mainly due to a reduction in the size of the local labor force, which shrank by 1.9% (2,500 individuals) year-over-year in August. Erie's seasonally adjusted unemployment rate in August remained higher than that of Pennsylvania (4.9%) and the nation as a whole (4.4%).



*Data through June 2017

Components of ELI

Variable	March	April	May	June	Mar.-June	% Change*	Weights
ERIE Leading Index	101.72	100.54	100.17	100.71	-1.01	-0.99	1.000
U.S. Interest Rate Spread (%)	1.7	1.4	1.4	1.2	-0.54	-31.95	0.331
U.S. Index of Coincident Indicators (2004=100)	114.9	115.0	115.3	115.4	0.50	0.44	0.264
U.S. Real Money Supply (M2) (bill of chained 2009 \$)	11,947.8	11,968.0	12,027.2	12,045.8	98.00	0.82	0.144
PA Avg Weekly Hours in Manufacturing (hours)	40.3	40.7	41.2	40.9	0.61	1.51	0.085
Erie Manufacturing Employment (thou of jobs)	19.6	19.5	19.4	19.3	-0.24	-1.23	0.075
U.S. TS Freight Index (2000=100)	124.4	124.2	127.2	126.2	1.80	1.45	0.059
S&P 500 Stock Index (1941-43=10)	2,366.8	2,359.3	2,395.4	2,434.0	67.17	2.84	0.025
U.S. Building Permits (thou of units)	1,260	1,228	1,168	1,275	15.00	1.19	0.018

*Symmetric % change, using the average value of the series in the last quarter as the base. *Changes may differ from hand calculations due to rounding.

Autumn will soon bring vibrant hues of red, but six of ELI's eight components are staying green. These components mostly indicate national economic activity and thus reflect the continuing strength of the U.S. economy.

The component with the biggest gain was the S&P 500 Stock Index, which rose by 2.8%. The U.S. Transportation Services Freight Index rose by 1.5%, while the number of U.S. Building Permits increased by 1.2%.

The U.S. Real Money Supply also increased by 0.8%, but was lower than the 1.2% increase in the 1st quarter and the 1.3% increase during the same period a year ago. The limited growth of the real money supply is consistent with the Fed's recent policy stance of gradual monetary tightening, which reflects the Fed's confidence in the national economy and its desire to both promote maximum sustainable employment and maintain price stability. Although the Fed decided not to raise its benchmark federal funds interest rate in September

after having nudged it up twice earlier this year, it indicated that another rate hike is possible if the U.S. economy gains further momentum. Moreover, in a further sign of monetary tightening, the Fed announced that it will begin to reduce the size of its portfolio of bonds and other securities that were purchased as part of its efforts to stimulate the economy during the 2008 financial crisis.

These developments are significant because the U.S. economy typically leads the Erie economy, so the contractionary effects of the monetary tightening on the national economy may eventually create negative spillover effects locally.

In addition to these national economic developments, Pennsylvania Average Weekly Hours in Manufacturing increased by 1.5% during the quarter. However, the positive changes in these ELI components did not prevent ELI from falling, albeit at a modest 1.0%. A reason was the decline in Erie Manufacturing Employment by 1.2% on a seasonally adjusted basis. It is worth noting that

the decline in manufacturing employment has occurred at a time when the number of nonfarm jobs has been inching upward, reflecting the local economy's transition toward leaner manufacturing and service-oriented activities. The fact that ELI has still been nudged downward suggests the local manufacturing sector continues to significantly impact the rest of the local economy.

The component that had the largest negative effect on ELI this quarter was the U.S. Interest Rate Spread, which shrank by 32.0%. This was almost two-and-a-half times the 13.3% decline in the previous quarter. This narrowing of the spread, which measures the difference between the 10-year Treasury bond yield and the short-term federal funds rate, partly reflects the Fed's monetary tightening and is important to watch because a negative interest rate spread may signal the possibility for an economic downturn.

ELI falls slightly, although six of its eight components increased!

Trends and Implications for Different Sectors of the Erie Economy

Goods-Producing Sectors

Mining, Logging, and Construction:

Due to the incremental shift to warmer weather, employment in this sector increased 18.4% (700 jobs) from April to August, with a current total of 4,500 jobs. Although total employment in this sector is up 2.3% (100 jobs) compared to a year ago, job growth is likely to moderate as the colder season approaches. This sector may also be affected by U.S. fiscal, regulatory, and environmental policy.

Manufacturing:

After an increase of 2.6% (500 jobs) from April to July, manufacturing industry employment fell in August and is currently at 19,600, about 0.5% (100 jobs) below where it was a year ago. A further decline in employment is likely over the coming year as G.E. shifts locomotive production from Erie to Fort Worth, Texas. Changes in technology and government policy are also likely to have major effects on this sector.

Plastics & Rubber Products Mfg:

After rising by 2.3% (100 jobs) from January to February, employment in this sector remained stable at 4,400 from February to June. Since June, employment has increased by another 2.3% (100 jobs), causing a slight year-over-year improvement. Just as for the manufacturing sector overall, changes in technology and government policy can affect this sector.

Private Service-Providing Sectors

Wholesale Trade:

The wholesale trade sector has remained mostly stable over the past two quarters, fluctuating between 3,700 and 3,800 total jobs. However, as of August, employment in this sector is down 2.6% (100 jobs) compared to a year ago, partially due to adjustments in the manufacturing sector. Employment in this sector is likely to be influenced by seasonal factors, as well as by changes in government fiscal and trade policies.

Information:

This broad sector encompasses these industries: publishing (including software, traditional, and Internet publishing), motion picture and sound recording, broadcasting (including traditional and Internet broadcasting), data processing, and information services. The number of jobs has remained steady at 1,100 throughout the first eight months of the year, the same level compared to a year ago. This sector will continue to be affected by rapid changes in technology.

Education and Health Services:

After increasing 2.8% (800 jobs) between January and April, employment in this sector fell by 3.7% (1,100 jobs) between April and August. However, the current employment level of 28,400 jobs still represents a year-over-year increase of 2.9% (800 jobs). This is the largest sector (by employment) in the local economy. Education and health care policy, educational and medical technology, and shifting demographics in the local region, are all likely to affect this sector.

Retail Trade:

Employment in this sector rose by 5.4% (800 jobs) in the first half of the year. Moreover, employment has increased by 2.6% (400 jobs) year-over-year in August. Further job increases in this sector are likely as the November and December holiday seasons approach. However, continued job losses in manufacturing as well as government policies that affect household disposable incomes can influence this sector.

Financial Activities:

This sector has remained relatively stable, with employment remaining at 6,300 during the first six months of the year, and increasing by 1.6% (100 jobs) since then. Compared to a year ago, employment has also risen by 1.6% (100 jobs). Innovations in data and information processing, as well as changes in U.S. fiscal, monetary, and regulatory policies that affect household and corporate financial decisions will affect this sector.

Leisure and Hospitality:

As expected, increasing recreational and tourist activities helped to lift employment in this sector during the summer months. Between April and June, employment rose by 13.6% (1,900 jobs). Although employment dipped slightly in July, it has bounced back in August and currently stands at 15,900. This represents a year-over-year increase of 2.6% (400 jobs). However, employment may fall with the end of the summer recreational season.

Transportation, Warehousing, Utilities:

Employment in this sector was relatively stable in the first half of the year, fluctuating between 3,300 and 3,400. However, employment has fallen by 3.0% (100 jobs) between June and August, although the current number of jobs is still slightly higher by 3.2% (100 jobs) compared to a year ago. Changes in U.S. fiscal, trade, regulatory, and environmental policy can affect this sector.

Professional and Business Services:

This sector is experiencing a robust recovery after employment fell in the fourth quarter of 2016 by 2.9% (300 jobs). Employment has increased by 6.1% (600 jobs) since January and the current level of 10,400 jobs represents an increase of 2.0% (200 jobs) year-over-year in August. As in other sectors, employment in this sector can be affected by government fiscal and regulatory policies.

Other Services:

Employment in this sector rose by 5.3% (300 jobs) between January and April, held steady at 6,000 jobs between April and July, but has fallen back to 5,900 jobs in August. The current level of employment represents a year-over-year decrease of 1.7% (100 jobs). As with other parts of the local economy, government policies and other events affecting household disposable income are likely to influence this sector.

Government Sector

As of August 2017, Erie total employment in the government sector stood at 14,600. This was down 1.4% (200 jobs) compared to the month of June, and down 0.7% (100 jobs) compared to a year ago. Between June and August, federal and state government employment increased by 6.7% (100 jobs) and 8.6% (300 jobs), respectively, while local government employment fell by 6.1% (600 jobs). Government employment locally is affected by the school calendar as well as by education, fiscal, and regulatory policies.



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Economic Research Institute of Erie
Black School of Business
Penn State Erie, The Behrend College

5101 Jordan Road • Erie, PA 16563
814-898-7150 • ERIEdata.org

Director: Dr. Kenneth Louie; klouie@psu.edu
Graduate Research Assistant: Marissa Baker; mjb5985@psu.edu

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