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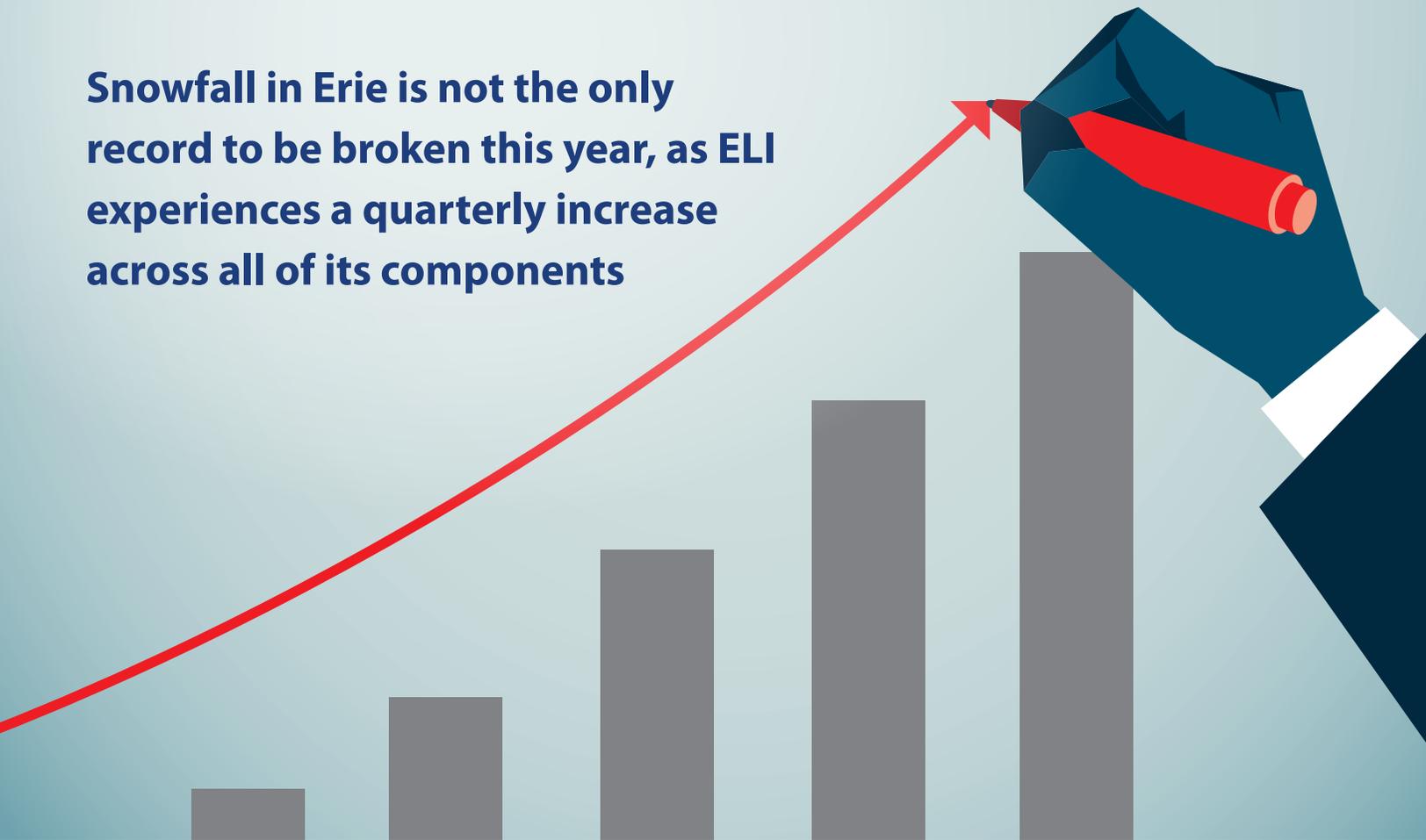
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**ELI** Erie  
Leading  
Index

**2<sup>ND</sup> QUARTER 2018 REPORT**

# Quarter So Bright, ELI Has to Wear Shades

Snowfall in Erie is not the only record to be broken this year, as ELI experiences a quarterly increase across all of its components



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# Stabilizing Manufacturing Employment, at Least for Now, Propels ELI to New Record

After a record-breaking winter and a late spring, Erie could certainly use some cheerful economic news as we head into another bright and sunny summer. Well, the Erie Leading Index (ELI) has just provided that extra ray of sunshine!

ELI's decline at the end of last year appears to have been a temporary blip because the index has recovered nicely to register a robust 2.1% increase from December 2017 to March 2018.

Since ELI's trajectory provides important clues about the state of the local economy in the months ahead, this new development suggests that we can all enjoy another beautiful Erie summer (and, hopefully, the months beyond) without the worry of an impending recession.

Indeed, this was the highest quarterly increase that ELI has experienced, breaking the previous record of a 1.8% increase set during the 3rd quarter of 2017. This should effectively help melt away any remaining thoughts of snow that may still have been lingering in the minds of Erieites.

Especially noteworthy is that employment in Erie's manufacturing sector appears to have stabilized somewhat after the turbulence of the past three years. On a seasonally adjusted basis, manufacturing employment increased every month during the first quarter, albeit at a very slow pace. This is the first time since 2012 that we have seen consecutive monthly increases in manufacturing employment within the same quarter. For the first quarter as a whole, Erie manufacturing employment rose by 2.0% (400 jobs) on a seasonally adjusted basis. However, as of March, this is still 2.1% (400 jobs) below where it was a year ago. So we have gained back some, but not all, of the recent manufacturing job losses.

Some additional uncertainty remains, of course, as G.E. completes its transfer of locomotive production out of Erie by the end of the year and prepares for the merger, pending regulatory approval, with Wabtec.

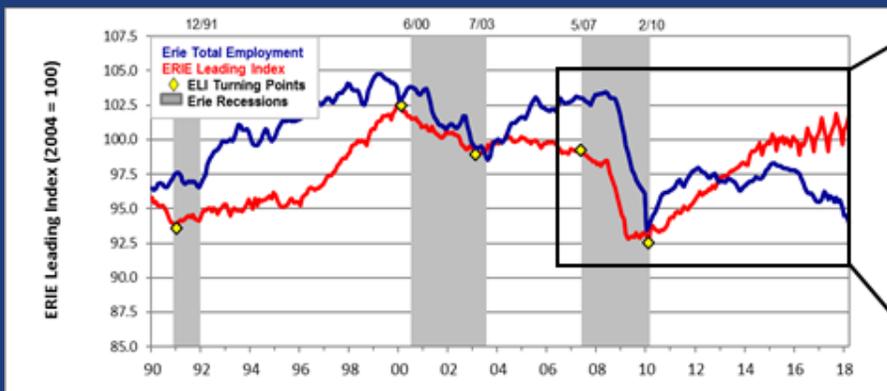
The most recent statistics from the Pennsylvania Department of Labor and Industry tell a similar story. On

a seasonally unadjusted basis, Erie manufacturing employment rose by 0.5% (100 jobs) between April and May, but is still 1.6% (300 jobs) below where it was last year.

The stabilization in Erie manufacturing employment during the past few months is part of a broader positive trend in the local economy: on a seasonally adjusted basis, total nonfarm employment increased by 1.0% (1,300 jobs) year-on-year in May.

The sectors in the local economy experiencing the highest rate of job growth year-over-year in May were: federal government (+6.7% or 100 jobs); leisure and hospitality (+4.0% or 600 jobs); and transportation, warehousing, and utilities (+3.0% or 100 jobs).

These broadly positive local employment trends were also reflected in Erie's seasonally adjusted unemployment rate, which fell to 4.4% in May, the lowest level in almost two decades, and is inching closer to that in Pennsylvania (4.5%) and the nation as a whole (3.8%).



\*Data through March 2018

## Components of ELI

Variable	Dec.	Jan.	Feb.	Mar.	Dec.-Mar.	% Change*	Weights
<b>ERIE Leading Index</b>	<b>99.64</b>	<b>100.69</b>	<b>101.05</b>	<b>101.70</b>	<b>2.06</b>	<b>2.07</b>	<b>1.000</b>
U.S. Interest Rate Spread (%)	1.1	1.2	1.2	1.1	0.23	20.91	0.331
U.S. Index of Coincident Indicators (2004=100)	102.9	102.8	103.0	103.2	0.30	0.29	0.265
U.S. Real Money Supply (M2) (bill of chained 2009 \$)	12,173.1	12,132.1	12,132.4	12,183.1	10.00	0.08	0.146
PA Avg Weekly Hours in Manufacturing (hours)	41.0	41.2	41.4	41.6	0.57	1.40	0.085
Erie Manufacturing Employment (thou of jobs)	18.7	18.9	19.0	19.1	0.38	2.01	0.075
U.S. TS Freight Index (2000=100)	129.9	127.6	129.0	130.8	0.90	0.69	0.056
S&P 500 Stock Index (1941-43=10)	2,664.3	2,789.8	2,705.2	2,702.8	38.43	1.44	0.025
U.S. Building Permits (thou of units)	1,320	1,366	1,323	1,377	57.00	4.32	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.

All of ELI's eight components increased between December and March, causing the index to rise by a record 2.1%.

As noted previously, the U.S. economy influences ELI's movements, since the national economy leads the local one. Thus, the strength of national indicators played a role in ELI's improvement.

For example, in anticipation of the construction season, the number of U.S. Building Permits increased by 4.3%. The U.S. Transportation Services Freight Index also increased by 0.7%, while the S&P 500 Stock Index rose by 1.4%.

The component that increased most was the U.S. Interest Rate Spread, expanding by 20.9%. Measured as the difference between the 10-year Treasury bond yield and the short-term federal funds rate, this indicator is key because research shows a negative interest rate spread may signal an economic downturn.

Monetary policy also remained slightly expansionary as the U.S. Real Money Supply grew by 0.1%. In the 1st quarter,

U.S. real gross domestic product or GDP, a broad measure of aggregate production and output, increased at an annual rate of 2.0%. This was lower than the late 2017 growth rates, but economists expect higher growth in the 2nd quarter once the December tax cuts (which took effect in January) begin to show impact. There is evidence that the business tax cuts, which lowered corporate tax rates to 21% from 35%, may already be having some effect. After-tax corporate profits rose by 8.7% in the 1st quarter, compared to the 1.4% increase in the 4th quarter of last year. The impact of the personal income tax cuts, however, remains uncertain.

Of course, whether the U.S. economy can sustain this momentum and continue to generate positive spillover effects on the Erie economy will depend on some other important factors.

One factor is the degree of additional monetary restraint the Federal Reserve will impose in the coming months to avoid an overheated national economy that might create excessive inflationary

pressures. According to the U.S. Bureau of Labor Statistics, the overall consumer price index (CPI) rose by 2.8% before seasonal adjustment for the 12 months ending in May. In June, the Fed raised the range for its benchmark federal funds rate for the 7th time since 2015, noting it may do so twice more in 2018. If so, this may gradually slow economic growth. The Fed's forecasts are for real GDP to grow at 2.8% in 2018, but at a slower pace of 2.4% in 2019, 2.0% in 2020, and 1.8% in the long term.

Other uncertain factors include the possibility of a more substantial "trade war" between the U.S. and some of its trade partners, and the final form of renegotiated U.S. trade agreements such as NAFTA.

In addition to the positive trends in ELI's national-level components, the two local-level components also increased. On a seasonally adjusted basis, Erie Manufacturing Employment rose by 2.0% and Pennsylvania Average Weekly Hours in Manufacturing grew by 1.4%.

**All 8 components in ELI increased this quarter!**

# Trends and Implications for Different Sectors of the Erie Economy

## Goods-Producing Sectors

### Mining, Logging, and Construction:

After a cold and snowy spring, employment in this sector has picked up with the improving weather. Employment rose by a robust 16.2% (400 jobs) between March and May. Moreover, employment is up by 2.4% (100 jobs) year-over-year in May and currently stands at 4,300. Changes in regulatory, environmental, trade, and fiscal policy, including the new tax law, may affect this sector.

### Manufacturing:

Employment has stabilized after the job losses of the past few years and currently stands at 18,800, though this is down 1.6% (300 jobs) compared to a year ago. Further changes may occur as G.E. stops locomotive production in Erie and prepares for its merger with Wabtec. Rapid changes in technology, globalization, and government policy continue to affect this sector.

### Plastics & Rubber Products Mfg:

This sector remains stable, though employment fell by 2.3% (100 jobs) year-over-year in May and currently stands at 4,300. Like manufacturing overall, changes in technology, globalization, and government policy can affect this sector. The new Shell cracker plant is also expected to boost employment in the long run.

## Private Service-Providing Sectors

### Wholesale Trade:

This sector continues to be stable, with employment remaining at 3,500 throughout the first five months of the year, though this is down 2.8% (100 jobs) compared to a year ago. Seasonal expenditure patterns can affect this sector, as can government fiscal and trade policies. Policies or new technologies that influence or disrupt the global supply chain can also affect this sector.

### Information:

This broad sector encompasses the following industries: publishing (including software, traditional, and web publishing), motion picture and sound recording, broadcasting (including traditional and Internet broadcasting), data processing, and information services. As of May, employment in this sector was unchanged at 1,100 compared to a year ago. Rapid changes in technology continue to affect this sector.

### Education and Health Services:

After rising in the first three months of the year, employment in this sector has dipped slightly since March and currently stands at 28,600, up 1.4% (400 jobs) compared to a year ago. This continues to be 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:

After a post-holiday lull, employment in this sector has steadily recovered since January and currently stands at 14,600, unchanged from a year ago. Changes in employment in other sectors like manufacturing and policies that affect household disposable incomes, such as the newly-passed Tax Cuts and Jobs Act or tariffs on imported goods, can influence this sector.

### Financial Activities:

This sector has been very stable, with employment remaining at 6,300 in the first five months of the year, though this is down 1.6% (100 jobs) compared to a year ago. 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, such as the newly-passed Tax Cuts and Jobs Act, will affect this sector.

### Leisure and Hospitality:

As expected, employment in this sector has increased steadily with the onset of spring. Between March and May, employment rose by 10.7% (1,500 jobs) and currently stands at 15,500. Moreover, this represents a year-on-year increase of 4.0% (600 jobs). Job growth is likely to escalate with the summer tourist season as well as with Bayfront development and other efforts to promote the Erie region.

### Transportation, Warehousing, Utilities:

Employment in this sector has risen slightly since January to the current level of 3,400, which is up by 3.0% (100 jobs) compared to a year ago. Seasonal factors and changes in fiscal, trade, regulatory, and environmental policy, as well as events or technologies that disrupt the global supply chain, can affect this sector.

### Professional and Business Services:

After fluctuating earlier this year, employment in this sector rose by 5.1% (500 jobs) between March and May to stand at 10,400, which is up 1.0% (100 jobs) compared to a year ago. As in most other sectors, employment in this sector can be affected by government regulatory and fiscal policies such as the newly-passed Tax Cuts and Jobs Act.

### Other Services:

Employment in this sector has increased by 1.7% (100 jobs) since March to its current level of 6,100, which is unchanged compared to a year ago. Changes in government policy and other events affecting household disposable incomes as well as business and household consumption patterns are likely to influence this sector.

## Government Sector

As of May 2018, Erie employment in the government sector stood at 16,400, unchanged compared to March, but up 2.5% (400 jobs) compared to a year ago. Federal government employment remained unchanged between March and May, but increased by 6.7% (100 jobs) to 1,600 compared to a year ago. Changes in state and local government employment normally occur over the course of the school year. Between March and May, state government employment fell by 4.2% (200 jobs) to its current level of 4,600, but this is still up 2.2% (100 jobs) compared to a year ago. During the same period, local government employment increased by 2.0% (200 jobs) to its current level of 10,200, which also represents an increase of 2.0% (200 jobs) compared to a year ago. Federal as well as state education, fiscal, and regulatory policies may also affect local government employment at all three levels.



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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](mailto:klouie@psu.edu)  
Graduate Research Assistant: Natalie Szalajko; [nps5181@psu.edu](mailto:nps5181@psu.edu)

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