// Western New York ECONOMIC NEWS
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Though the current business cycle expansion is 8 years of age, 3 years longer than the average post-WWII expansion, revisions of average GDP and GDI growth rates over the last three quarters point to an acceleration of economic growth. Three month Treasury bill yields have continued their climb since the fall of 2016, as the Federal Reserve has continued the process of raising its federal funds target rate. While the Fed has expressed an interest in returning interest rates to more normal levels in the future, its behavior has been tempered because it does not wish rising interest rates to be responsible for slowing down economic growth or possibly returning the economy to recession.

The National Economic Outlook

The BEA www.bea.gov recently published revised data for GDP from 2013 to the present. The "second estimate" of real GDP growth during 2017:Q2 was 3.0% compared to the lackluster figures of 1.8% and 1.2% during 2016:Q4 and 2017:Q1. Real Gross Domestic Income (GDI) growth over the same period was -1.7%, 2.7% and 2.9% respectively. The average of GDP and GDI growth rates amounted to 0%, 2% and 3% over the last three quarters pointing to an acceleration of economic growth. The growth rates of real GDP and GDI since 2007:Q4 are shown in Figure 1. The 3% growth rate during 2017:Q2 was due to increases in personal consumption, federal government expenditures and private inventories. Declining residential investment and state and local government expenditures moderated growth during the second quarter. GDP during 2017:Q3 is likely to be negatively impacted by hurricanes Harvey and Irma.

The current business cycle expansion is 8 years of age, 3 years longer than the average post-WW II expansion. The average rates of growth of the combined quarterly GDP and GDI figures amounted to 2.24% during the present expansion. This compares to 2.69% growth for the expansion that began in 2002:Q1 and ended in 2007:Q4. The lower rate of growth in the recovery from the Great Recession compared to past business cycles is perplexing. A possible explanation is that recoveries from recessions caused by financial crises result in decreased lending to consumers and firms as both the financial institutions and their customers repair their balance sheets. This negatively impacts investment and productivity.

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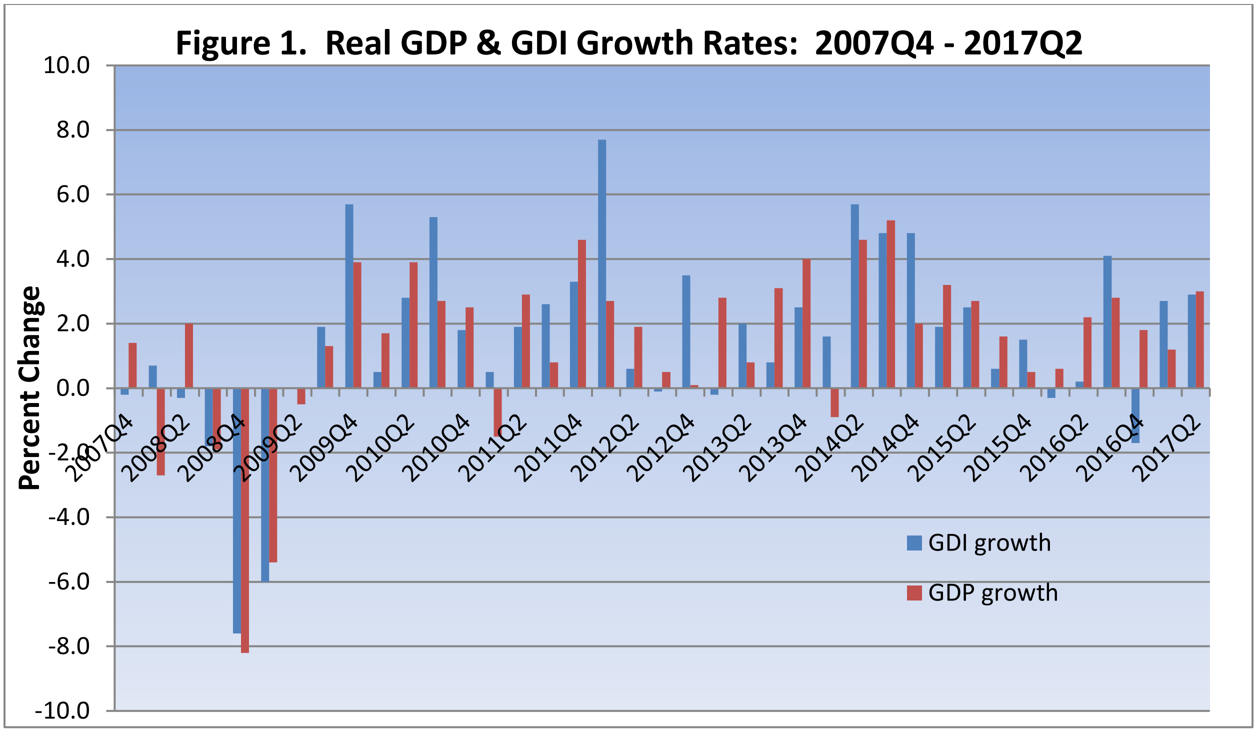
Figure 1. Real GDP & GDI Growth Rates: 2007Q4 - 2017Q2
Percent Change
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
-4.0
-6.0
-8.0
-10.0
2007Q4
2008Q2
2008Q4
2009Q2
2009Q4
2010Q2
2010Q4
2011Q2
2011Q4
2012Q2
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2017Q2
GDI growth
GDP growth

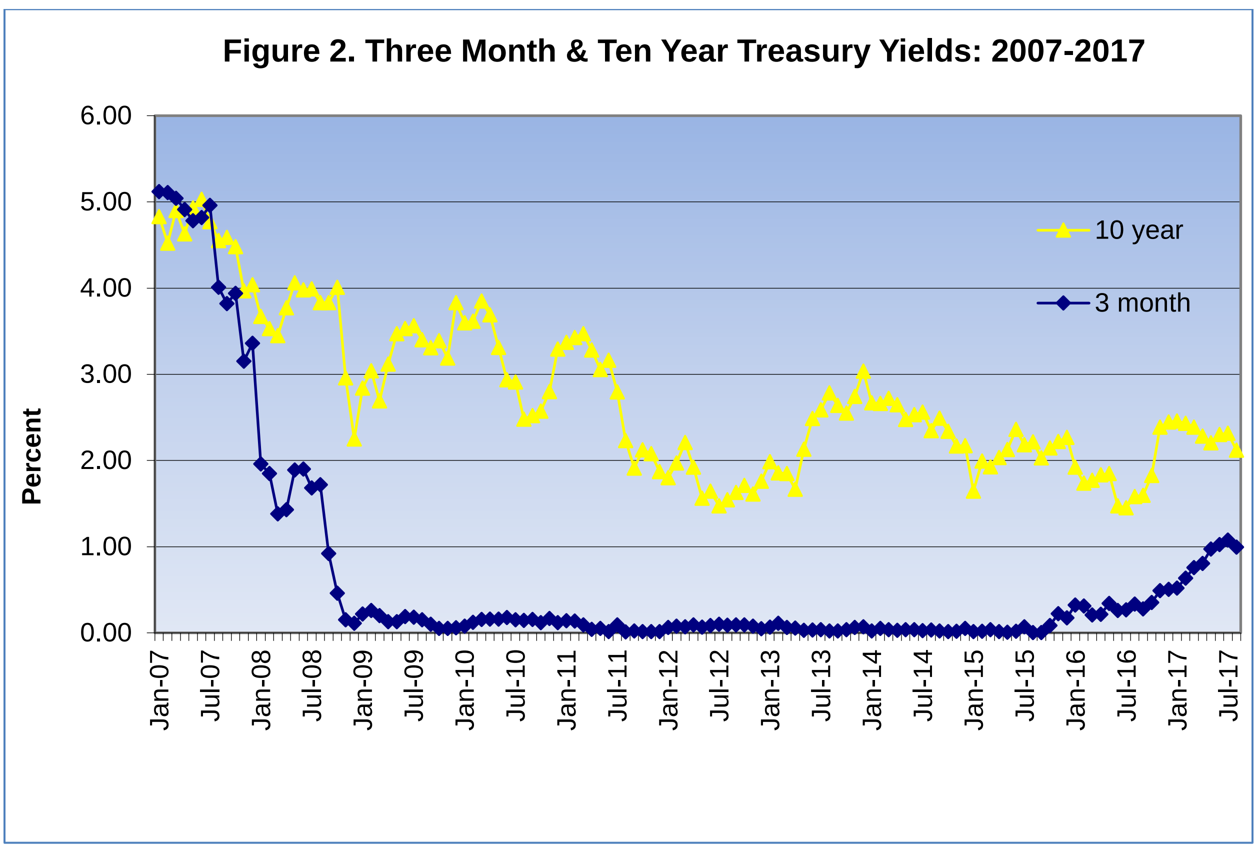
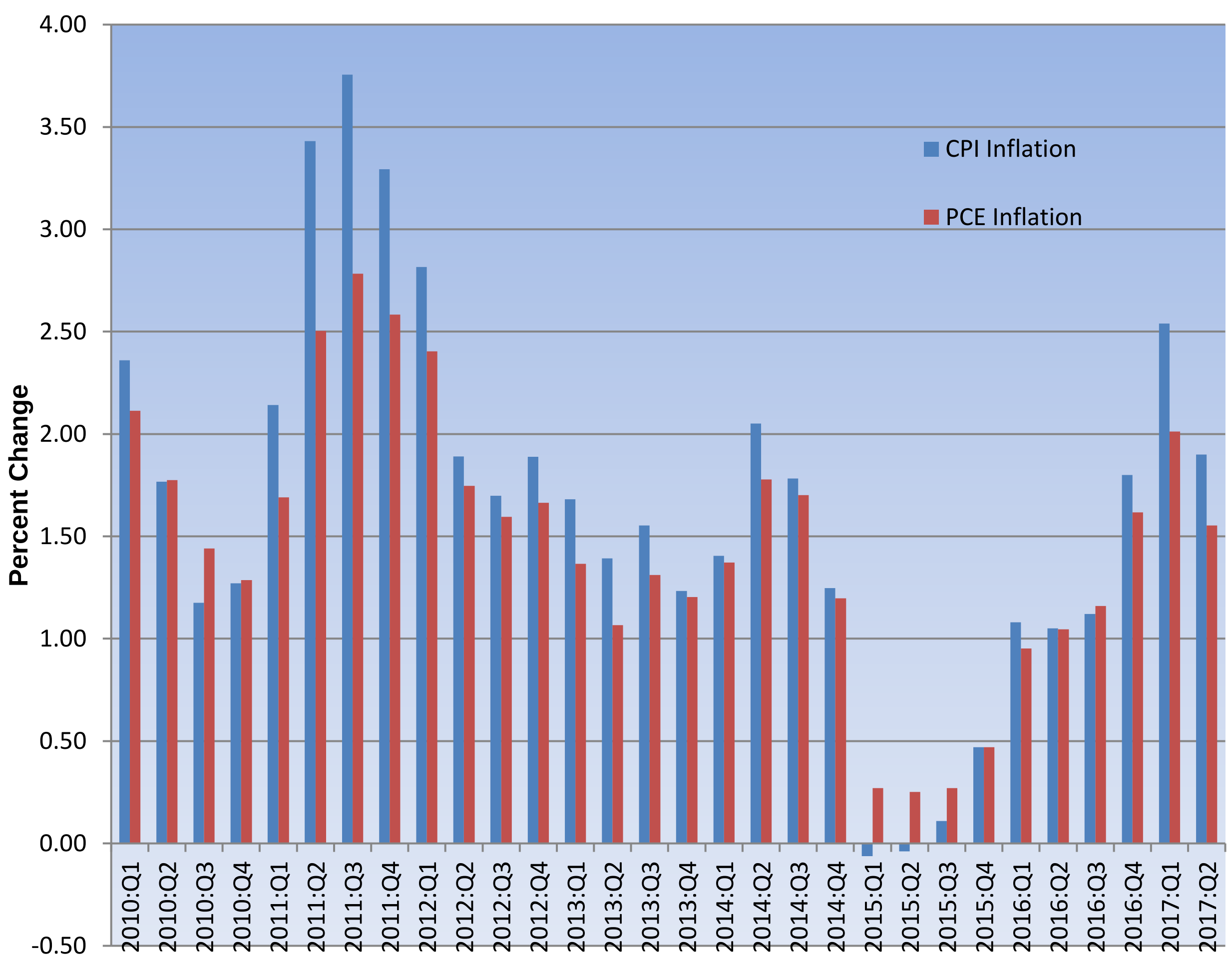


Figure 2. Three Month & Ten Year Treasury Yields: 2007-2017
Percent
6.00
5.00
4.00
3.00
2.00
1.00
0.00
10 year
3 month
Jan-07
Jul-07
Jan-08
Jul-08
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Jul-13
Jan-14
Jul-14
Jan-15
Jul-15
Jan-16
Jul-16
Jan-17
Jul-17

Three month Treasury bill yields have continued their climb since the fall of 2016, as the Federal Reserve has continued the process of raising its federal funds rate target. Three month and ten year Treasury yields are shown in Figure 2. The Fed raised its target by 25 basis points in both March and June of 2017 and presently stands at 1.00 – 1.25%. Ten year Treasury yields have remained relatively stable due to the benign inflation environment. The Fed has expressed an interest in returning interest rates to more normal levels in the future. The FOMC minutes and speeches by members of the Federal Reserve Board have revealed a desire to further increase the Fed Funds target, but they do not wish rising interest rates to be responsible for slowing down economic growth or possibly returning the economy to recession. A key factor in their decision is and has been the behavior of inflation. They wish to see the inflation rate rise to at least a 2% level before raising rates further. Economic theory suggests that as an economic recovery progresses and new jobs are created, wages should rise along with inflation expectations, causing an increase in economy-wide inflation.

Figure 3. CPI & PCE Quarterly Inflation Rates: 2010-2017

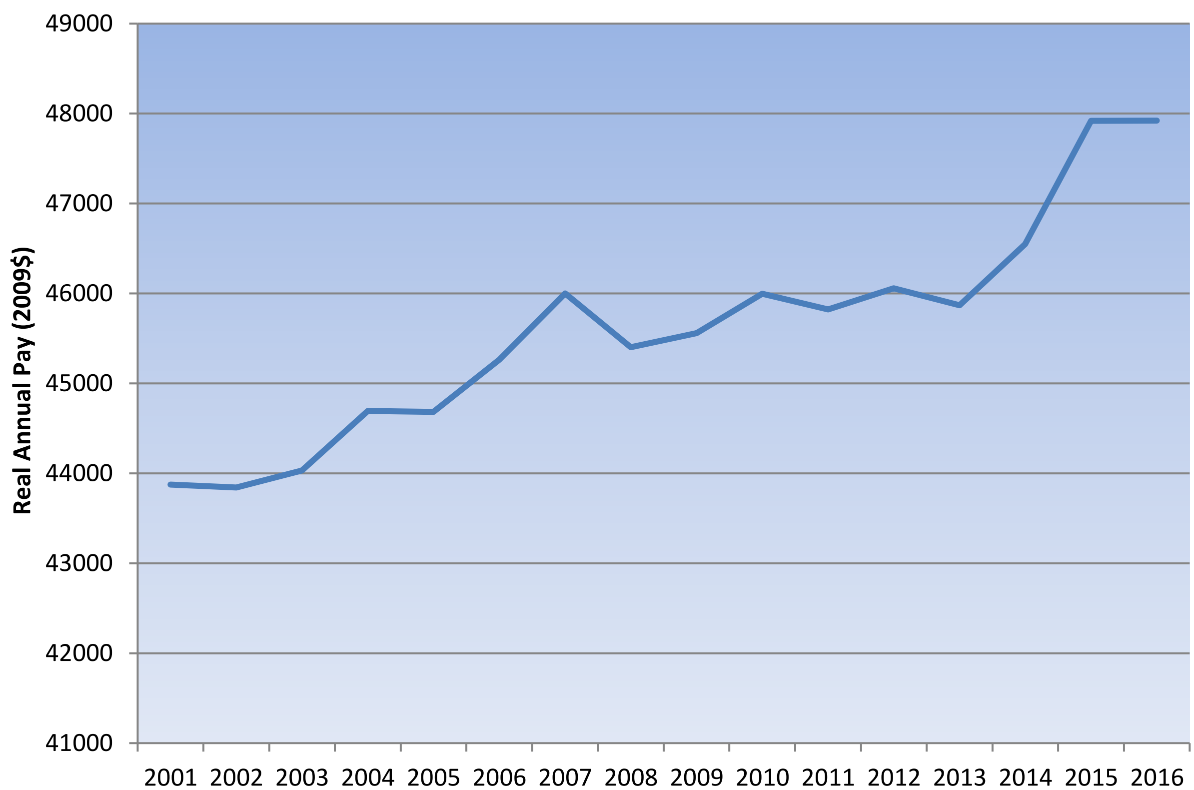


The trend in quarterly inflation rates based on both the Consumer Price Index and the Personal Consumption Expenditure Deflator appears in Figure 3. Inflation rates based on both the CPI and PCE have been increasing since 2015. However, PCE inflation, the Fed's preferred inflation measure, declined to 1.55% during 2017Q2 from its 2% level in 2017Q1. This was a factor in the decision of the FOMC to leave the fed funds target unchanged during their July meeting.

The June 2017 Livingston inflation expectations survey published by the Philadelphia Federal Reserve Bank shows survey participants projecting CPI inflation to be 2.4% over the period 2016-2017 that for 2017-2018 to be 2.3%. The latter figure decreased by .2 percentage points compared to the December 2016 survey. Survey participants have clearly become used to the moderate inflation environment in revising downward their expectations for 2017-2018.

Real average annual pay measured in 2009 dollars over the period 2001-2016 is shown in Figure 4 www.bls.gov . Since the end of the recession in 2009, the growth of real average annual pay amounted to only .7% (BLS QCEW data). The growth of this series between 2015 and 2016 was 0%.

Figure 4. Real Average Annual Pay (2009$)



The Economic Outlook for the Buffalo Region

We have found it informative to compare the monthly *Current Employment Statistics* (CES) data series to the broader based and larger *Quarterly Census of Employment and Wages (*QCEW) data when attempting to draw conclusions about trends in the regional economy.

The QCEW data for 2016 shows that Erie County employment has continued to grow at an annual rate greater than almost any other time since the *great recession;* 1.1% in 2015 and 1.0% in 2016. While the rate of growth of employment in Erie County for 2015 and 2016 is nearly three times the average growth rate over the period 2010 - 2014, it is approximately half the rate of growth for the rest of the nation for the same years. The increasing disparity in employment growth during the economic recovery can be clearly seen in Figure 5a, which shows the quarterly employment data for Erie County and the nation over the period 2001 – 2016, as a percent of its 2001 level.

Figure 5b shows the seasonally adjusted monthly employment data for the Buffalo MSA from 2001 through July 2017. The Buffalo MSA data is based on the payrolls of establishments drawn from the CES survey http://www.bls.gov/sae/. The data provided by this survey is timelier than that from the QCEW, though, and perhaps because, it is drawn from a smaller sample. While it presents an opportunity to get an early glimpse into trends in the labor market, it is probably not as reliable as the larger survey that lags in release time.

The combination of sampling techniques and the underlying relative strength of the Erie and Niagara County economies could explain much of the difference between Figures 5a and 5b. While employment in the Buffalo MSA finally returned to the level it had attained prior to the 2001 recession, having previously exceeded its 2008 peak in 2015, it has experienced declines since January 2017.

QCEW data suggests that Erie County employment growth is stronger than that of the MSA, implying that the weakness in the MSA growth rates might be due to Niagara County. The 2017 data indicates that seasonally adjusted monthly employment levels in the first quarter of 2017 compared to the same months in 2016 are lower in Niagara County. Comparing the 2017 monthly employment data for Erie County to the same months in 2016 indicates that the employment growth rates are about the same as the annual rates, 1%. Second and third quarter results may help us understand if this indicates that a greater movement away from the national growth path is in our future.

Table 2, based on QCEW data, presents a comparison of employment, employment growth rates, annual pay per worker, the ratio of local to national earnings per worker and local location quotients for Erie County. These comparisons are made for total employment in the public and private sectors, as well as for specific industries in the private sector.

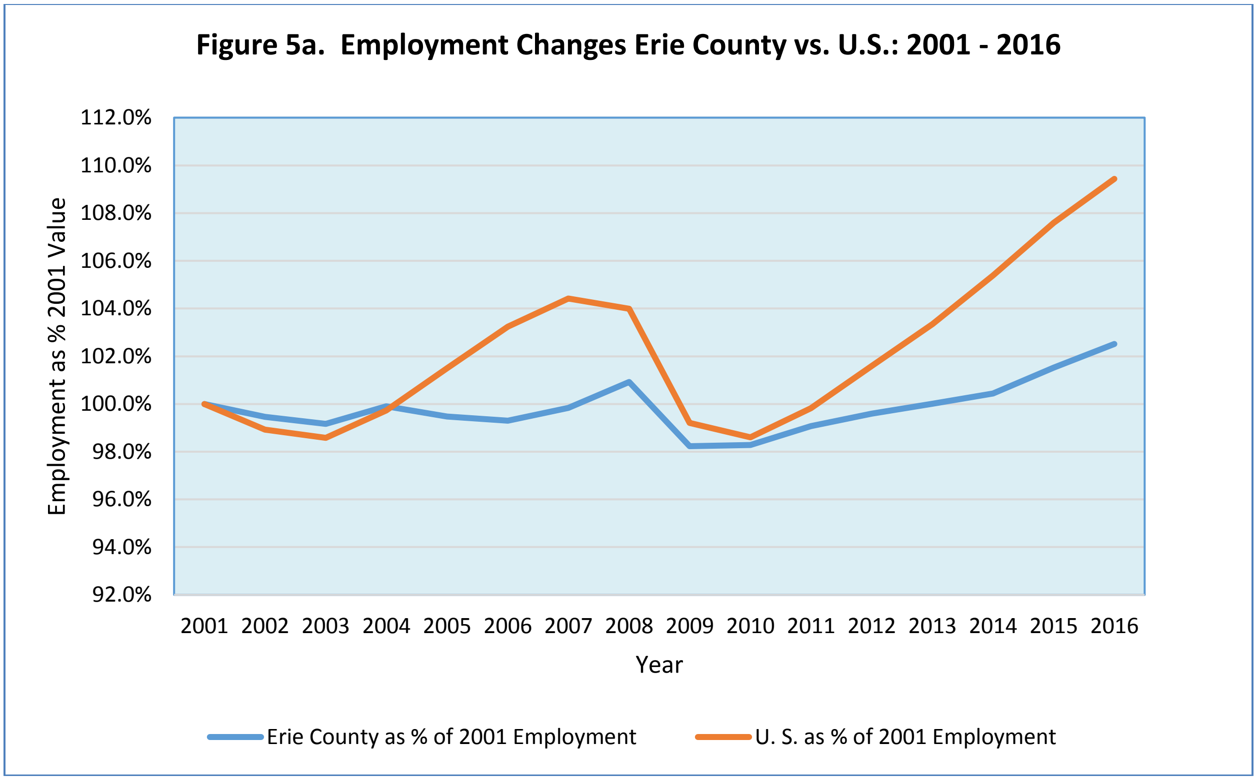
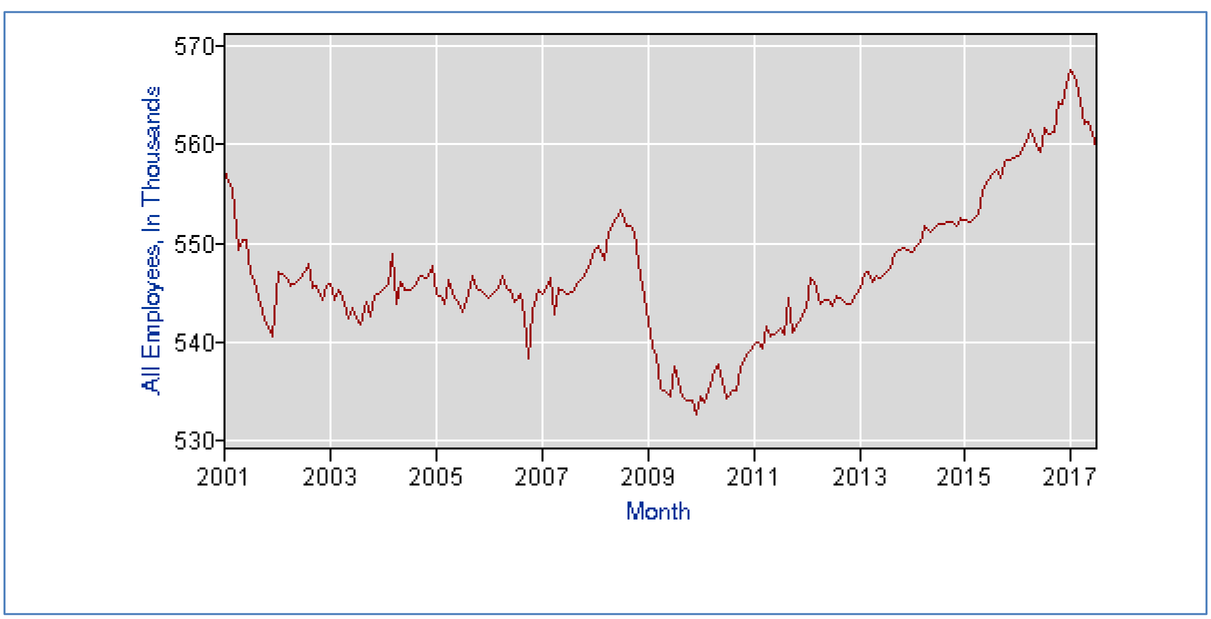


Figure 5b
Buffalo MSA Seasonally Adjusted Non-Agricultural Employment: 2001 – 2017



As implemented by the BLS, the location quotients (LQs) are the ratio of industry employment in Erie County to total base-industry employment in the county divided by the ratio of industry employment in the US to base-industry employment in the US. Thus, the value of Erie County's LQ for construction (.81) means that the proportion of total employment made up by construction employment in Erie County is 81% of the average for all counties in the United States. The LQ's used here are employment based; the same calculation could be made using industry earnings compared to total earnings. An LQ substantially greater than 1 implies some degree of specialization in that industry for the region.

As shown in Table 3, federal and local government employment fell between 2010 and 2016 by 13% and 6% respectively. Over that period, a common theme in this newsletter had been, and continues to be, that the tax base, both property and sales, could no longer support the level of local government employment that existed before the recession. Either the size of local government employment or the average compensation of government workers would need to fall. Since local government employment declined by 6% over the period 2010-2016, while the average wages of local government workers are 9% higher than the national average, it seems apparent which direction we have chosen.

With the exception of the leisure and hospitality industry, the fastest growing private sector industries in Erie County had wages per worker at or below the national average. Financial services employment, second only to leisure and hospitality in growth, has average annual pay that is 69% of the national average. It should be noted that only manufacturing workers have higher average annual earnings than employees in the financial services sector.

An LQ of 1.20 for the financial sector supports the statement made many times in this space that the region is attractive to those firms that need skilled workers that are willing to work for less than the national average salary. When this salary is higher than that which can be earned by workers in almost any other local industry, then firms that relocate to WNY, as well as newly employed residents working for them, are made better off by the move.

Conclusion

The 2016 CES employment data suggested that the Buffalo MSA was not growing as quickly as pre-revised data made it appear, though it was still growing. Current data for the MSA suggest that total employment has been declining locally since January 2017. The weakness appears to be in Niagara County. While employment growth in the region still lags behind the nation, for the first time since the recession, several industrial sectors show earnings per worker to be growing at a rate that exceeds the national average. Finally, once again we question state and local development policy that is aimed at manufacturing employment, where local earnings approximate the national average. Rather, information, financial activities and the business services sectors, where local average pay is between 65% and 75% of the national average, but is still higher than the local average, would seem to provide the region's competitive advantage.

Table 2

Erie County vs. US Employment and Earnings by Industry: 2016

Industry	Average Annual Employment	Average Annual Pay	Location Quotient Relative to U.S. 2016	Local to U.S. Average Pay
Total, all industries	466,277	$47,058	1	88%
Total, Federal Government	8,199	$75,262	0.89	96%
Total, State Government	19,807	$57,125	1.32	100%
Total, Local Government	43,578	$52,899	0.95	109%
Total Private all industries	394,693	$45,322	1	85%
Goods-producing	61,486	$61,365	0.9	99%
Natural resources & mining	1,011	$39,226	0.16	70%
Construction	17,704	$56,868	0.81	97%
Manufacturing	42,771	$63,750	1.06	98%
Service-providing	333,207	$42,361	1.02	82%
Trade, transportation & utilities	84,587	$37,630	0.95	84%
Information	6,379	$62,515	0.69	63%
Financial activities	31,964	$62,815	1.22	71%
Professional & business services	62,377	$54,812	0.95	78%
Education & health services	77,465	$43,048	1.09	90%
Leisure & hospitality	51,164	$24,818	1	111%
Other services	17,590	$26,050	1.22	73%
Unclassified	1,681	$26,046	1.77	50%

Source: http://www.bls.gov/cew/datatoc.htm
*** All employers, public and private ***private sector wages*

Table 3

Erie County - US Employment and Earnings by Industry: 2016

Industry	Location Quotient Relative to U.S.	Erie County %Change in Employment 2010 - 2016	U.S. %Change in Employment 2010 - 2016	Erie County %Change in Average Pay 2010 - 2016	U.S. %Change in Average Pay 2010 - 2016
Total, all industries**	1	4%	15%	15%	15%
Total, Federal Government	0.89	-13%	13%	15%	13%
Total, State Government	1.32	1%	17%	22%	17%
Total, Local Government	0.95	-6%	11%	15%	11%
Total Private all industries***	1	6%	15%	16%	15%
Goods-producing	0.9	7%	14%	13%	14%
Natural resources & mining	0.16	-3%	13%	6%	13%
Construction	0.81	14%	18%	14%	18%
Manufacturing	1.06	4%	13%	14%	13%
Service-providing	1.02	6%	16%	16%	16%
Trade, transportation, & utilities	0.95	5%	14%	14%	14%
Information	0.69	-8%	32%	19%	32%
Financial activities	1.22	12%	20%	20%	20%
Professional & business services	0.95	-1%	16%	17%	16%
Education & health services	1.09	6%	10%	17%	10%
Leisure & hospitality	1	14%	16%	27%	16%
Other services	1.22	9%	22%	11%	22%
Unclassified	1.77	309%	3%	-5%	3%

Source: http://www.bls.gov/cew/datatoc.htm
*** All employers, public and private ***private sector wages*

NATIONAL, STATE & LOCAL BUSINESS INDICATORS

NATIONAL INDICATORS	2016:II	2016:IV	2017:I	2017:II	% change 2016:II - 2017:II
Real GDP (billions of chained 2009$) (1)(a)	16,663.5	16,851.4	16,903.2	17,030.0	2.2
Real GDI (billions of chained 2009$) (1)(a)	16,783.0	16,882.1	16,994.1	17,115.0	2.0
US Personal Income (billions of $) (1)(a)	15,910.1	16,025.7	16,245.2	16,363.9	2.9

	Aug-16	Jun-17	Jul-17	Aug-17	% change Aug-16 - Aug-17
Consumer Price Index (1982-84=100) (2)	240.849	244.955	244.786	245.519	1.94
Exchange Rate Canadian cents/US $ (3) (b)	131.06	129.66	124.77	124.83	-4.75
10 Year Treasury Note Yield (%) (3) (b)	1.582	2.302	2.315	2.119	0.54
3 Month Treasury Bill Yield (%) (3) (b)	0.332	1.026	1.078	0.996	0.66
S&P 500 Stock Index (3) (b)	2,170.95	2,423.41	2,470.30	2,471.65	13.85
Dow-Jones Industrial Average (3) (b)	18,400.88	21,349.63	21,891.12	21,948.10	19.28
LABOR MARKET TRENDS (2)					
Nonag Civilian Employment					
US (1000's)(a)	144,633	146,385	146,574	146,730	1.45
NY State (1000's)(a)	9,421.4	9,533.2	9,554.8	*	1.47
WNY (1000's)	560.3	568.3	560.3	*	0.02
Unemployment Rate (%)					
US (a)	4.9	4.4	4.3	4.4	-0.5
NY State (a)*	4.9	4.5	4.7	*	-0.2
WNY*	4.7	5.1	5.3	*	0.4
Ave. Weekly Hours in Mfg. US (a)	41.8	42.0	42.0	42.1	0.7
Ave. Weekly. Earnings in Mfg. US ($)(a)	859.41	873.60	877.80	879.89	2.38
US Private Employment (1000's)(a)	122,343	124,065	124,267	124,432	1.71
WNY EMPLOYMENT BY SECTOR (1000's) (2)*					
Mining, Logging & Construction	23.6	22.8	23.1	*	-2.12
Manufacturing	52.3	52.7	51.8	*	-0.77
Trade, Transportation & Utilities	102.0	104.4	102.9	*	0.49
Durable Goods	32.2	32.3	31.5	*	-0.94
Finance Activities	35.3	34.3	34.1	*	-3.67
Government	85.8	90.9	87.1	*	1.16

(1) US Dept. of Commerce — (a) Seasonally Adjusted
(2) US Dept. of Labor — (b) End of month data
(3) Wall Street Journal — *July 2016 - July 2017 % change