

Western New York ECONOMIC NEWS

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The national unemployment rate, which hovered around the 4% level since the fourth quarter of 2017, stood at 3.9% in July 2018. Citing relatively strong GDP growth, a healthy labor market, and stable inflation expectations, the FOMC stated it would maintain its 1.75%-2.00% target rate during their July/August meeting. Even at “full employment” levels, the annual growth of real average weekly wages has amounted to only .67% on an annual basis since the end of the recession in 2009. The Buffalo MSA has had sustained, though modest, employment growth since the end of the last recession. Although average annual pay here is lower than the national average, it has grown at the same rate as the national average since 2010 (18%).

The National Economic Outlook

Advanced estimates of real GDP during the second quarter of 2018 had the economy growing by 4.1% after having grown by 2.3% and 2.2% during 2017:Q4 and 2018:Q1, respectively. Growth was fueled by consumption expenditures, non-residential fixed investment, government expenditures and exports. Inventories, residential investment and imports, were a drag on GDP growth. Figure 1 shows real GDP growth rates over the past ten years.

The national unemployment rate has hovered around the 4% level since the fourth quarter of 2017. It stood at 3.9% in July 2018. Monthly additions to non-farm payrolls have averaged 215,000 over the first 7 months of 2018. According to the BLS, monthly payroll employment growth in the Buffalo-Niagara Falls MSA has averaged approximately 7,800 jobs over the same period. Payroll employment in the U.S. and WNY over the period 2000-2018 are shown in Figure 2.

During their June meeting, the FOMC raised its federal funds target rate to 1.75%-2.00%. They did not alter this target during their July/August meeting even though inflation had finally surpassed their 2% target. They reasoned that inflation expectations remained stable in an environment where GDP growth was strong and labor markets were healthy. Quarterly inflation rates based on the Consumer Price Index and the Personal Consumption Expenditure Price Deflator (PCE) are shown in Figure 3. Inflation based on these series has been accelerating since 2015:Q1. Inflation based on the Fed’s preferred Personal Consumption Expenditure series stood at 2.16% during 2018:Q2.

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Figure 1. Real GDP Growth Rates: 2007:Q1 - 2018:Q2

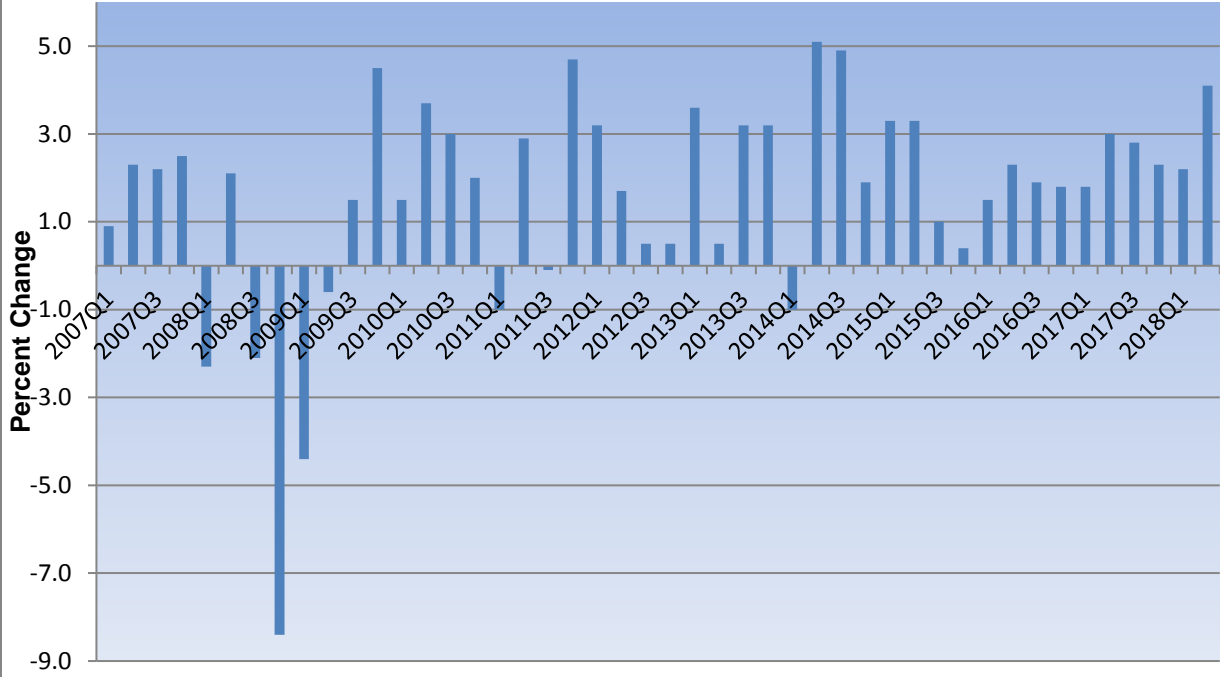
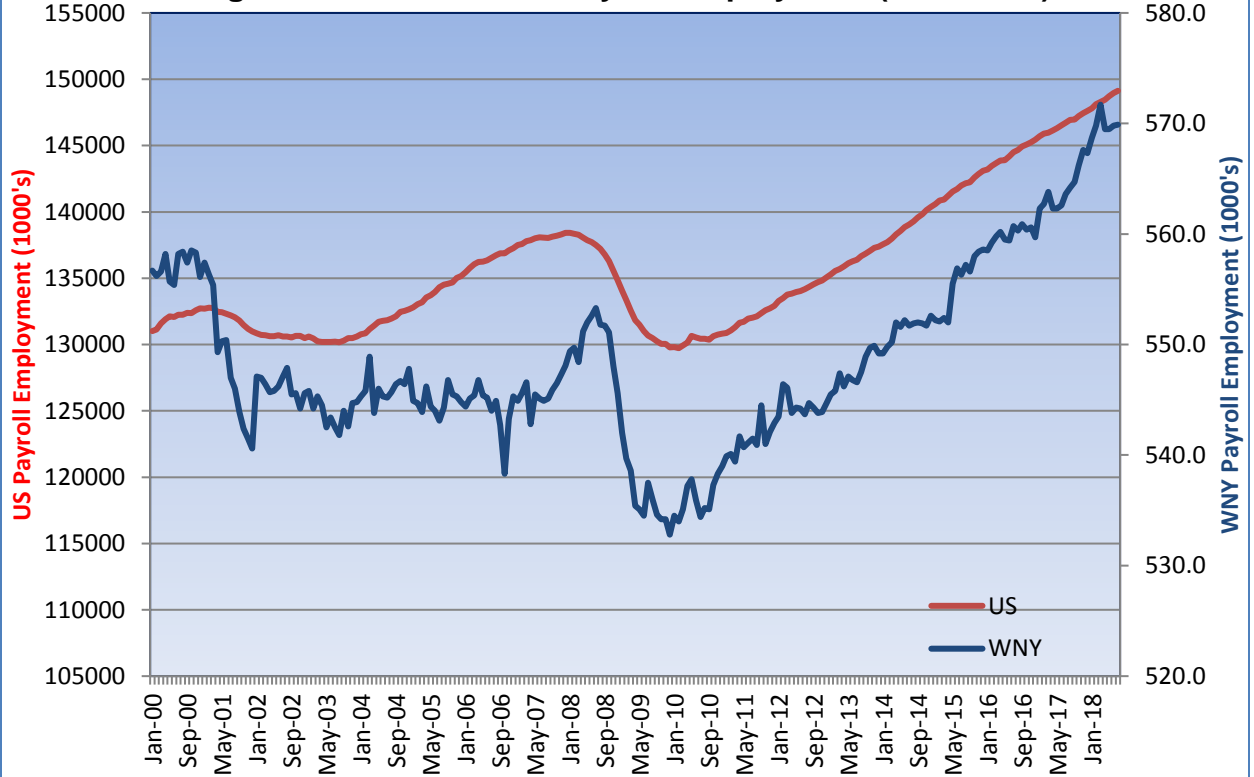
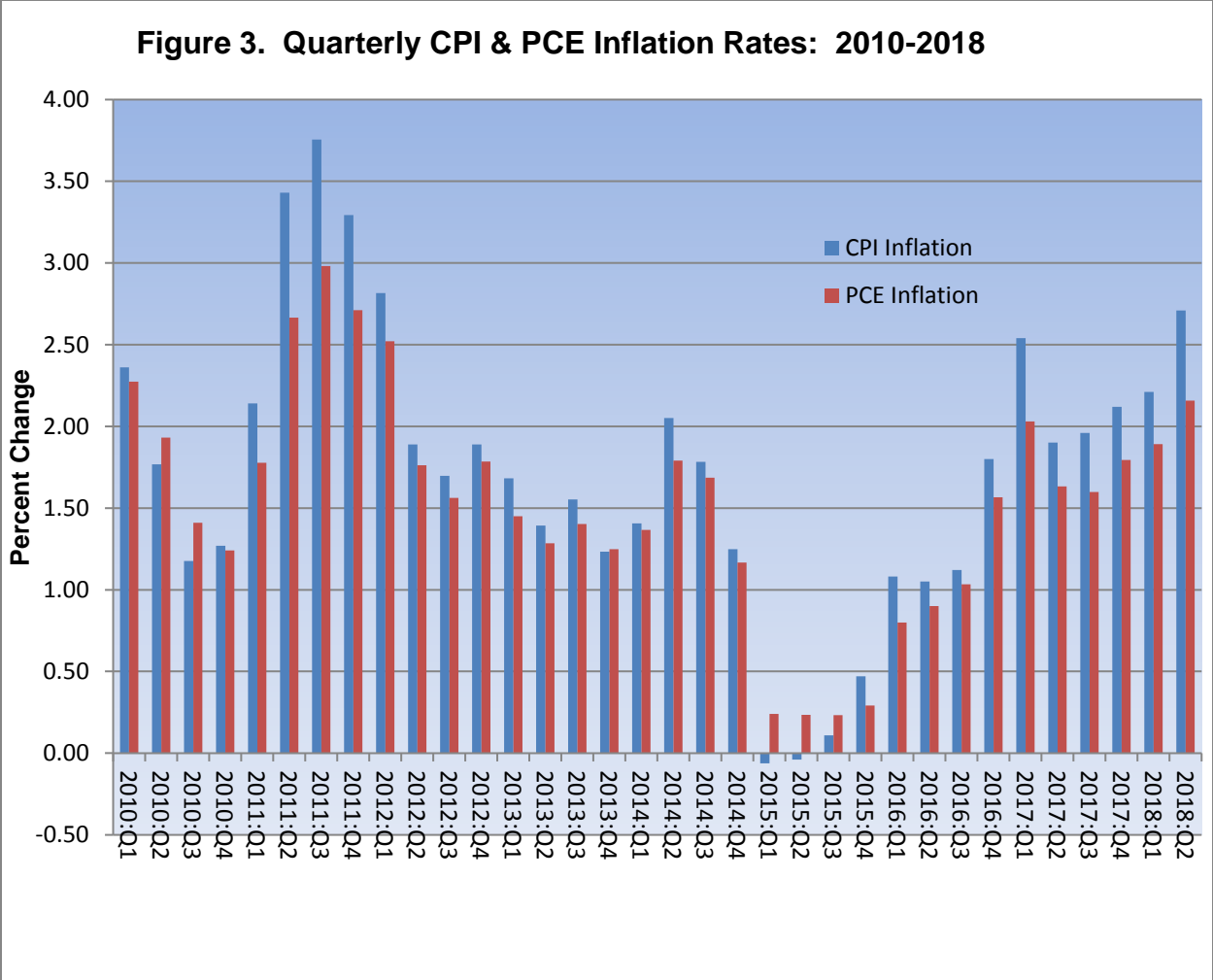


Figure 2. U.S and WNY Payroll Employment (2000-2018)

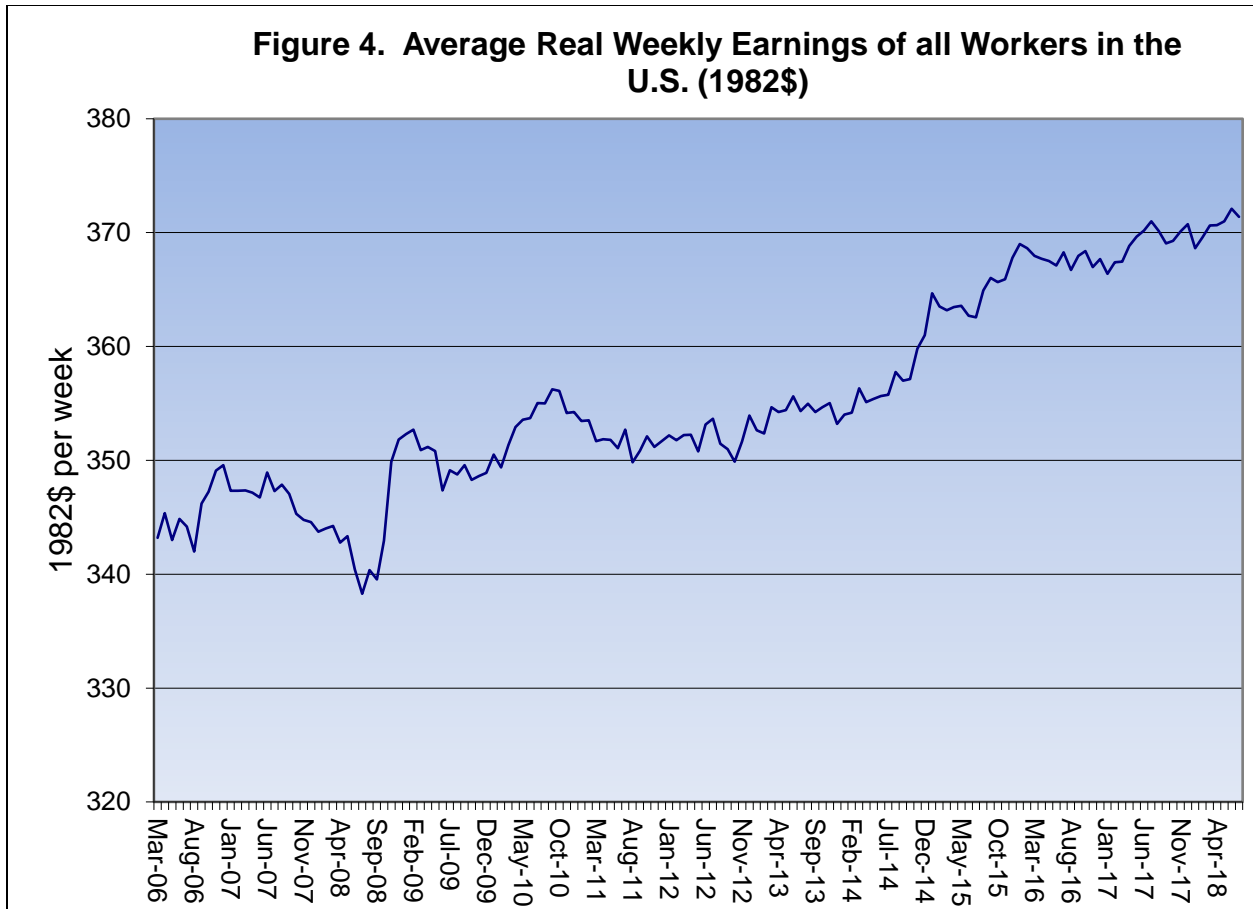




At present, the economy appears to be at what economists refer to as “full employment”. The economic expansion is aging, turning 109 months old in July 2018. Although it is difficult to say how much longer the expansion will last, it is interesting to note that the average post World War II expansion has averaged approximately 58 months or a little under 5 years. Eventually some exogenous shock will occur (for example a full blown trade war) and the economy will enter recession.

The June 2018 Livingston inflation expectations survey published by the Philadelphia Federal Reserve Bank shows survey participants projecting CPI inflation to be 2.6% over the period 2017-2018 and 2.3% over the period 2018-2019. Both of these projections increased slightly compared to the December 2017 survey (.4% and .1% respectively).

Real average weekly wages (1982\$) of all employees in the U.S. over the period March 2006 to July 2018 are shown in Figure 4 (www.bls.gov). Since the end of the recession in 2009, the annual growth of real average weekly wages has amounted to only .67%. The 2016-17 growth rate was .37%, while so far in 2018 real wages have grown by .38% over 2017 levels.

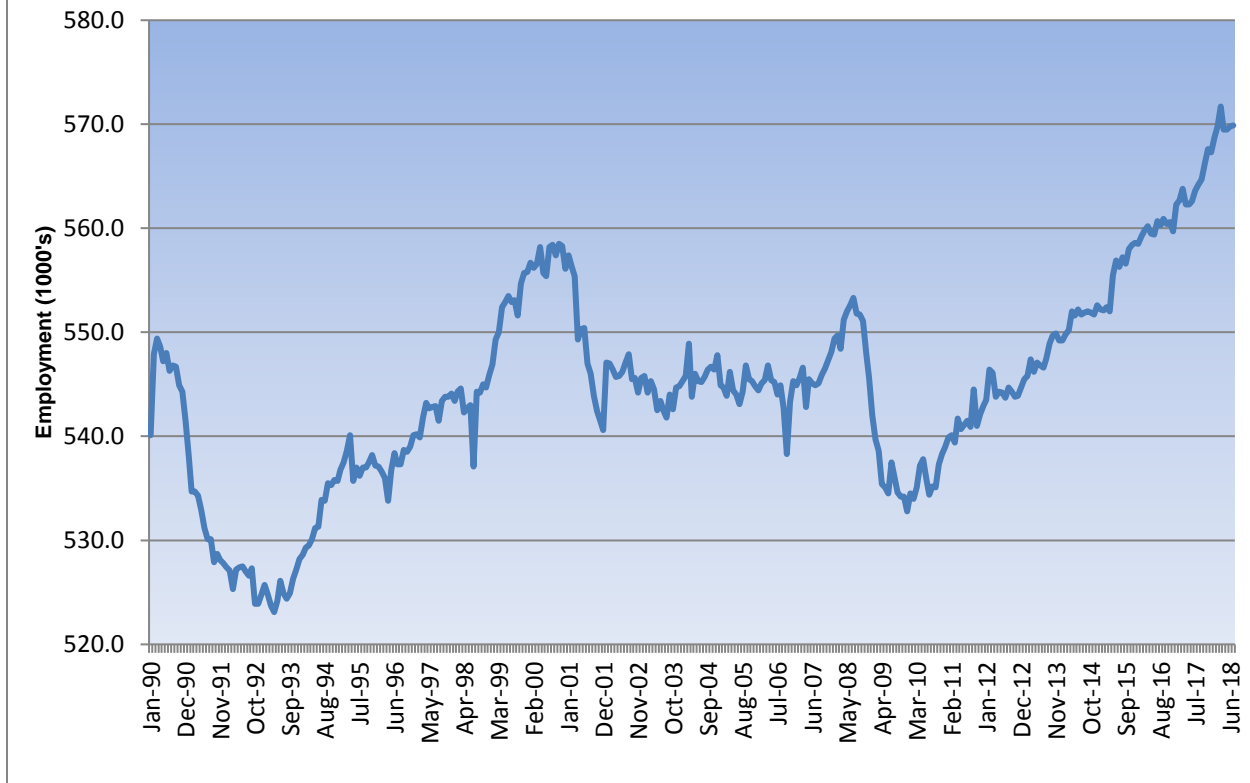


The Economic Outlook for the Buffalo Region

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 series when attempting to draw conclusions about trends in the regional economy.

Figure 5 shows the seasonally adjusted monthly employment series for the Buffalo MSA from 1990 through July 2018. 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 shows that in the Buffalo MSA there has been sustained, though relatively modest employment growth since 2010.

Figure 5. WNY Non-Agricultural Employment: Seasonally Adjusted (1990-2018)



Figures 6a - 6c compare BLS employment growth rates since 1990 for several metropolitan areas. The ratio of annual employment in a metropolitan area to its level in 1990 results in the construction of an employment index. These metropolitan area indexes can then be compared to the national employment index to determine the relative growth of the metro areas to the nation. Figure 6a shows this comparison for the Upstate New York metropolitan areas. It is obvious that each WNY metro area has had much less employment growth than the nation as a whole.

A selection of large metropolitan areas in Figure 6b shows that growth is not simply the province of the agglomeration effects found in large areas. The New York (19.6%) and Los Angeles (7.6%) areas have clearly performed less well than the national average, and substantially worse than Phoenix and Seattle.

To keep the context of change clear, the Rochester metropolitan area had 9% more employment in 2018 than it had in 1990 and Buffalo was 5% above the level in the base year. The national average was 36% above 1990 and Phoenix was 107% higher than 1990 employment levels.

Figure 6a. Upstate MSAs v. US Employment (1990 = 1)

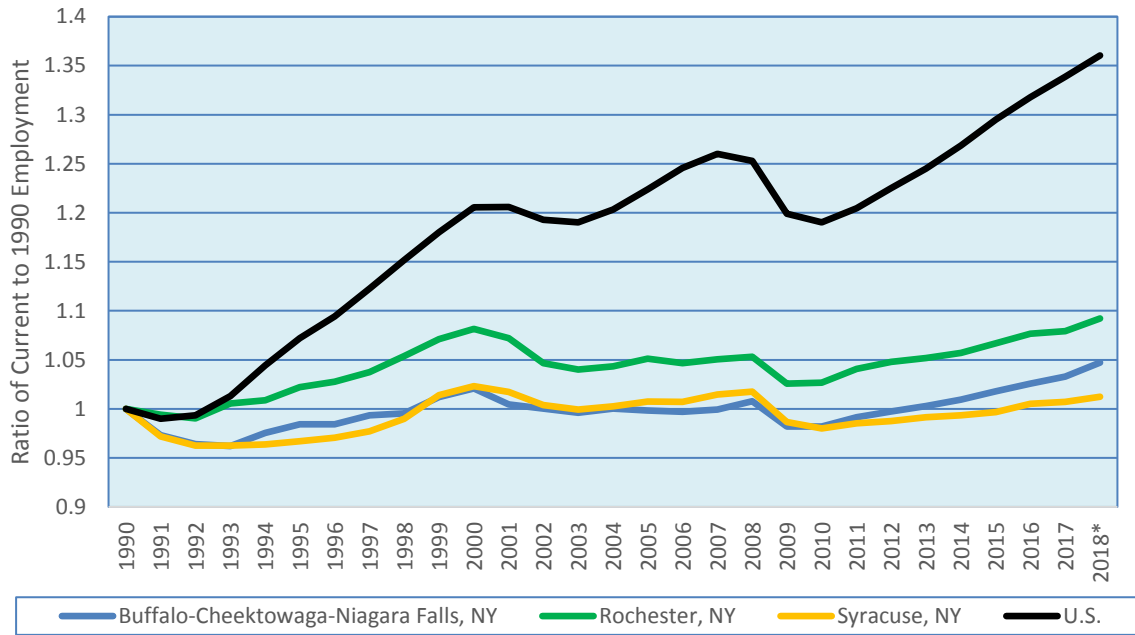
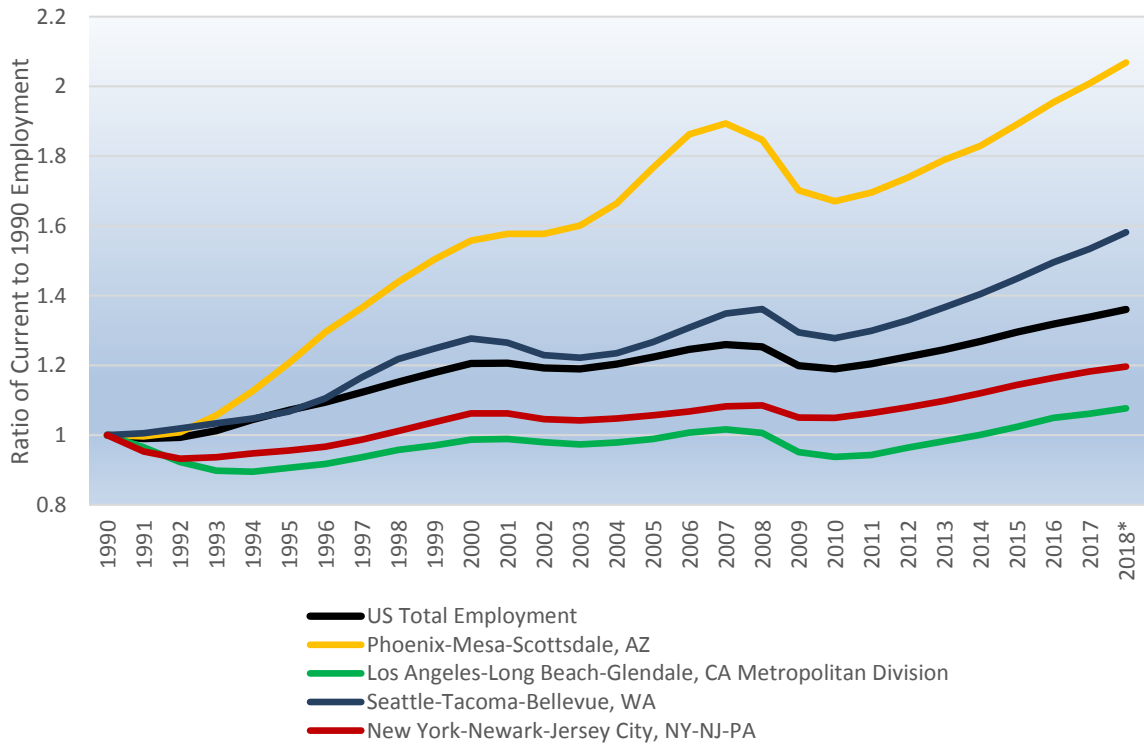


Figure 6b. Large MSAs v. US Employment (1990=1)



Several metropolitan areas that were relatively close to Buffalo's level of employment in 1990 are presented in Figure 6c. Wilmington, Delaware and Virginia Beach, Virginia grew at 22% and 30% respectively, nearly at the national average. Las Vegas increased by an astounding 168%, from 374,000 in 1990 to over 1,000,000 in 2018. This is compared to an increase from 546,000 to 572,000 in the Buffalo MSA.

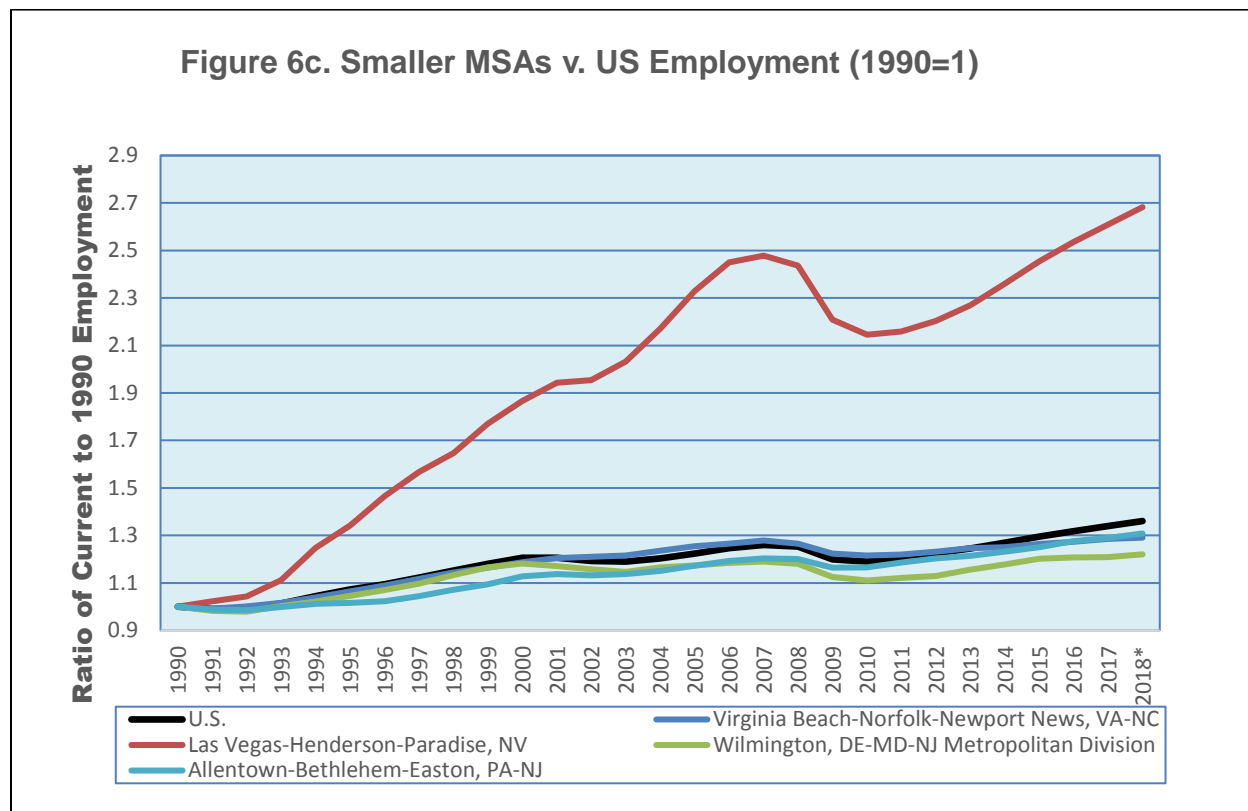


Table 2a presents annual employment and annual pay based on QCEW data for the U.S. in 2017. Table 2b presents the same series for the Buffalo MSA in addition to local location quotients and the ratio of local to national earnings per worker. The data allows a comparison of Buffalo versus the nation for total employment in the public and private sectors, as well as for specific industries in the private sector.

The location quotients (LQs) in Table 2b are calculated by dividing the ratio of industry employment in the Buffalo MSA to total employment in the MSA divided by the ratio of industry employment in the US to total employment in the US. Thus, the value of Buffalo's LQ for construction (.78) means that the proportion of total employment made up by construction employment in Buffalo is 78% of the average for the entire United States. The LQ's used here are employment based but the same calculation could be made using industry earnings compared to total earnings. An LQ greater than 1 implies some degree of specialization in that industry for the region.

Table 2a

US Employment and Earnings by Industry: 2017

Industry	Average Annual Employment	Average Annual Pay (\$)
Total, all industries	143,860,904	\$55,375
Total, Federal Government	2,801,939	80,440
Total, State Government	4,626,131	58,544
Total, Local Government	14,042,503	49,712
Total Private all industries	122,390,331	55,331
Goods-producing	21,203,608	63,963
Natural resources & mining	1,884,096	56,865
Construction	6,913,111	60,742
Manufacturing	12,406,401	66,835
Service-providing	101,186,723	53,523
Trade, transportation & utilities	27,243,309	46,152
Information	2,804,239	105,250
Financial activities	8,083,549	92,960
Professional & business services	20,326,689	72,519
Education & health services	22,139,340	49,199
Leisure & hospitality	15,891,971	23,182
Other services	4,429,782	37,319
Unclassified	267,844	55,364

Source: <http://www.bls.gov/cew/datatoc.htm>

Table 2b**Buffalo MSA Employment and Earnings by Industry: 2017**

Industry	Average Annual Employment	Average Annual Pay (\$)	Location Quotient Relative to U.S. 2017	Local % of U.S. Average Pay 2017
Total, all industries	540,436	47,443	1.00	86%
Total, Federal Government	9,331	75,800	0.89	94%
Total, State Government	21,298	59,988	1.23	102%
Total, Local Government	55,472	53,211	1.05	107%
Total Private all industries	454,335	45,569	0.99	82%
Goods-producing	73,305	61,561	0.92	96%
Natural resources & mining	1,715	36,975	0.24	65%
Construction	20,147	56,337	0.78	93%
Manufacturing	51,442	64,426	1.10	96%
Service-providing	381,030	42,492	1.00	79%
Trade, transportation & utilities	97,499	37,571	0.95	81%
Information	6,774	63,514	0.64	60%
Financial activities	35,877	63,672	1.18	68%
Professional & business services	67,130	56,658	0.88	78%
Education & health services	92,045	43,092	1.11	88%
Leisure & hospitality	60,598	24,451	1.02	105%
Other services	20,122	26,487	1.21	71%
Unclassified	985	28,885	0.98	52%

Source: <http://www.bls.gov/cew/datatoc.htm>

In addition to the LQ's, Table 2b also shows average earnings per worker by industrial sector in the Buffalo MSA as a percent of the national average for that sector. This combination reveals the areas of specialization within the Buffalo MSA and the relative earnings generated per worker in each sector. Buffalo has a larger concentration of state workers than is the norm for the country (23% higher), and they are paid slightly more than the national average for state employees (2% higher). That could reflect the professional employment at the SUNY campuses.

The higher level of local government employment may reflect the requirement that county level governments deliver social services in New York State, a function that is provided at the state level in most states. Whether this explains the higher earnings per worker in the Buffalo MSA for employees of local governments is not clear.

Interestingly, while manufacturing is still somewhat concentrated in the Buffalo MSA (10% above the national average employment), average pay is 4% lower than the national average. In 1998, BEA estimates showed earnings per manufacturing worker in the Buffalo metropolitan area about 9% higher than the national average. Manufacturing employment in the Buffalo MSA in 1998 was approximately 90,635, while at present there are about 51,442 manufacturing employees. The region has lost manufacturing jobs and more importantly, the jobs it has retained generate earnings that are lower than the national average for the sector.

Table 2b shows that financial service employment continues to be concentrated in the Buffalo MSA. While average annual pay in this sector is well above the regional mean, it is only 68% of the national average. It is not surprising that there is employment growth in an industrial sector where the average pay is lower than the national norm, for this behavior is consistent with properly functioning markets.

Based on this criteria one might expect new employment growth to appear in the information services sector since wages are substantially lower in Western New York than in the rest of the nation. While employment could move towards lower wages regions, it is also possible that lower wage regions reflect the reduction in wages that accompany sectoral decline. The average annual pay for information service employees in each of the three WNY metropolitan areas shown in Tables 3a - 3c was lower in 2017 than the national average. Each MSA also had declining levels of employment in this sector between 2010 and 2017.

Tables 3a - 3c compare changes in employment and annual pay by industrial sector in the upstate metropolitan areas to changes in the national averages between 2010 and 2017.

Table 3a

Changes in Employment & Earnings by Industry: Buffalo v. the U.S.
(2010 – 2017)

Industry	Buffalo MSA % Change in Employment 2010 – 2017	U.S. % Change in Employment 2010 - 2017	Buffalo MSA % Change in Average Annual Pay 2010 - 2017	U.S. % Change in Average Pay 2010 - 2017
Total, all industries**	5%	13%	18%	18%
Total, Federal Government	-11%	-6%	17%	16%
Total, State Government	3%	0%	26%	20%
Total, Local Government	-6%	0%	17%	14%
Total Private all industries***	7%	15%	19%	19%
Goods-producing	6%	13%	16%	17%
Natural resources & mining	7%	5%	14%	14%
Construction	12%	26%	16%	22%
Manufacturing	4%	8%	16%	16%
Service-providing	7%	16%	19%	20%
Trade, transportation, & utilities	3%	11%	17%	18%
Information	-10%	4%	23%	41%
Financial activities	19%	9%	24%	26%
Professional & business services	-2%	22%	21%	21%
Education & health services	8%	19%	19%	13%
Leisure & hospitality	17%	22%	31%	20%
Other services	8%	2%	16%	27%
Unclassified	109%	75%	10%	10%

Source: <http://www.bls.gov/cew/datatoc.htm>

Table 3b

**Changes in Employment & Earnings by Industry: Rochester v. the U.S.
(2010 – 2017)**

Industry	Rochester MSA % Change in Employment 2010 – 2017	U.S. % Change in Employment 2010 - 2017	Rochester MSA % Change in Average Annual Pay 2010 - 2017	U.S. % Change in Average Pay 2010 - 2017
Total, all industries**	6%	13%	15%	18%
Total, Federal Government	-9%	-6%	12%	16%
Total, State Government	-6%	0%	7%	20%
Total, Local Government	-1%	0%	11%	14%
Total Private all industries***	7%	15%	16%	19%
Goods-producing	1%	13%	7%	17%
Natural resources & mining	15%	5%	21%	14%
Construction	21%	26%	16%	22%
Manufacturing	-5%	8%	5%	16%
Service-providing	9%	16%	19%	20%
Trade, transportation, & utilities	2%	11%	18%	18%
Information	-14%	4%	28%	41%
Financial activities	6%	9%	26%	26%
Professional & business services	13%	22%	19%	21%
Education & health services	14%	19%	17%	13%
Leisure & hospitality	11%	22%	22%	20%
Other services	9%	2%	21%	27%
Unclassified	64%	75%	14%	10%

Source: <http://www.bls.gov/cew/datatoc.htm>

Table 3c

**Changes in Employment & Earnings by Industry: Syracuse v. the U.S.
(2010 – 2017)**

Industry	Syracuse MSA % Change in Employment 2010 - 2017	U.S. % Change in Employment 2010 - 2017	Syracuse MSA % Change in Average Annual Pay 2010 - 2017	U.S. % Change in Average Pay 2010 - 2017
Total, all industries**	2%	13%	16%	18%
Total, Federal Government	0%	-6%	13%	16%
Total, State Government	15%	0%	25%	20%
Total, Local Government	-9%	0%	14%	14%
Total Private all industries***	3%	15%	16%	19%
Goods-producing	-1%	13%	11%	17%
Natural resources & mining	26%	5%	10%	14%
Construction	7%	26%	15%	22%
Manufacturing	-6%	8%	11%	16%
Service-providing	4%	16%	17%	20%
Trade, transportation, & utilities	1%	11%	16%	18%
Information	-7%	4%	13%	41%
Financial activities	-14%	9%	24%	26%
Professional & business services	4%	22%	24%	21%
Education & health services	10%	19%	14%	13%
Leisure & hospitality	10%	22%	21%	20%
Other services	3%	2%	18%	27%
Unclassified	91%	75%	-22%	10%

Source: <http://www.bls.gov/cew/datatoc.htm>

Bold figures indicate growing faster or declining more slowly

Tables 3a – 3c show that local government employment fell between 2010 and 2017 in each of the MSAs. A common theme in this newsletter had been and continues to be, that the property and sales tax base can no longer support the level of local government employment that existed before the recession. These results continue to support that conjecture. Without increases in intergovernmental transfers, either the level of local government employment or the average compensation of government workers would need to fall. While local government employment declined over the period, the average wage of local government workers increased at a rate near or above the national average.

Financial services employment, second only to leisure and hospitality in growth, has average annual pay that is 68% of the national average. It should be noted that only manufacturing and federal government workers have higher average annual earnings than employees in the financial services sector in the Buffalo MSA.

An LQ of 1.18 for the financial services sector in Buffalo supports the statement made many times in this space that the region is attractive to those firms that need skilled workers who 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, firms that relocate to WNY, as well as newly employed residents working for them, are made better off by the move.

NATIONAL, STATE & LOCAL BUSINESS INDICATORS

					% change
NATIONAL INDICATORS					2017:I -
	2017:II	2017:IV	2018:I	2018:II	2018:I
Real GDP (billions of chained 2012\$) (1)(a)	17,995.2	18,223.8	18,324.0	18,507.2	2.8
Real GDI (billions of chained 2012\$) (1)(a)**	18,168.7	18,294.2	18,469.7		2.3
US Personal Income (billions of \$) (1)(a)	16,721.2	17,103.1	17,318.9	17,502.6	4.7
					% change
					Jul-17 -
	Jul-17	May-18	Jun-18	Jul-18	Jul-18
Consumer Price Index (1982-84=100) (2)	244.786	251.588	251.989	252.006	2.95
Exchange Rate Canadian cents/US \$ (3) (b)	124.770	129.590	131.370	130.080	4.26
10 Year Treasury Note Yield (%) (3) (b)	2.315	2.860	2.861	2.963	0.65
3 Month Treasury Bill Yield (%) (3) (b)	1.078	1.913	1.923	2.018	0.94
S&P 500 Stock Index (3) (b)	2,470.3	2,705.27	2,718.37	2,816.29	14.01
Dow-Jones Industrial Average (3) (b)	21,891.12	24,415.84	24,271.41	25,415.19	16.10
LABOR MARKET TRENDS (2)					
Nonag Civilian Employment					
US (1000's)(a)	146,728	148,723	148,971	149,128	1.64
NY State (1000's)(a)	9,525.4	9,619.4	9,633.6	9,642.4	1.23
WNY (1000's)	562.4	574.5	576.4	569.3	1.23
Unemployment Rate (%)					
US (a)	4.3	3.8	4.0	3.9	-0.4
NY State (a)	4.7	4.5	4.5	4.3	-0.4
WNY*	5.3	4.3	4.4	4.5	-0.8
Ave. Weekly Hours in Mfg. US (a)	42.0	42.0	42.1	42.1	0.24
Ave. Weekly Earnings in Mfg. US \$(a)	876.96	898.80	903.05	902.62	2.93
US Private Employment (1000's)(a)	124,402	126,390	126,624	126,794	1.92
WNY EMPLOYMENT BY SECTOR (1000's) (2)					
Mining, Logging & Construction	23.0	22.3	23.1	24.3	5.65
Manufacturing	51.9	52.7	53.2	52.7	1.54
Trade, Transportation & Utilities	100.6	100.5	100.9	99.5	-1.09
Durable Goods	31.6	32.3	32.6	32.2	1.90
Finance Activities	37.4	36.9	37.0	37.5	0.27
Government	86.9	92.3	90.8	87.1	0.23
(1) US Dept. of Commerce	(a) Seasonally Adjusted				
(2) US Dept. of Labor	(b) End of month data				
(3) Wall Street Journal	**2017:I to 2018:I growth				

