

Western New York ECONOMIC NEWS

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<https://www.canisius.edu/academics/programs/economics/economics-wny-economic-news>

Volume 22, Number 1

January 2020

Real GDP grew by 2.1% during 2019, continuing the 41 quarter domestic expansion that far surpasses the 15 quarter average duration of post WWII expansions. From the end of May through mid-October 2019, the 3-month Treasury bill yield was consistently greater than the 10-year Treasury note yield. This unusual occurrence generally points to recession within 6 to 12 months of the yield curve's inversion. Though lower than the national average, as well as the other upstate areas growth rate for total employment between 2016 and 2019, the rate of growth of average annual pay was higher in the Buffalo MSA than for the other MSAs. It's growth rate for all industries equaled the national average over the period. Thus, though lower in earnings per worker than the rest of the nation and the other upstate MSAs, on average workers in the region are no longer falling behind.

The National Economic Outlook

Real GDP grew by 2.1% during 2019:Q3 after having grown by 3.1% and 2.0% during the first and second quarters of 2019. Real GDP growth has averaged 2.6% over the period 2017:Q3-2019:Q3. Figure 1 shows real GDP growth rates since 2007. Consumer expenditures, residential investment, government expenditure and exports all contributed to growth during the third quarter. The 41 quarter domestic expansion far surpasses the 15 quarter average duration of post-WWII expansions. In the past, we have emphasized that it is unrealistic to expect that we have eliminated downturns in the business cycle and that a downturn will likely occur at some point in the future due to an unforeseeable exogenous shock. At present however, the national economy has continued to grow despite of the trade war, a slowdown in worldwide economic growth and a fractured domestic political situation.

A fairly reliable indicator of future decline in economic activity has been the slope of the Treasury yield curve. From the end of May through mid-October 2019, the 3-month Treasury bill yield was consistently greater than the 10-year Treasury note yield. This unusual occurrence generally points to recession within 6 to 12 months of the yield curve's inversion. At present however, labor markets remain very strong as additions to payroll employment have averaged approximately 180,000 per month in 2019 and the national unemployment rate currently stands at 3.5%. Equity markets have joined the party as the S&P 500 index and the Dow-Jones industrial average recently reached all-time highs.

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Figure 1. Real GDP Growth Rates: 2007:Q1 - 2019:Q3

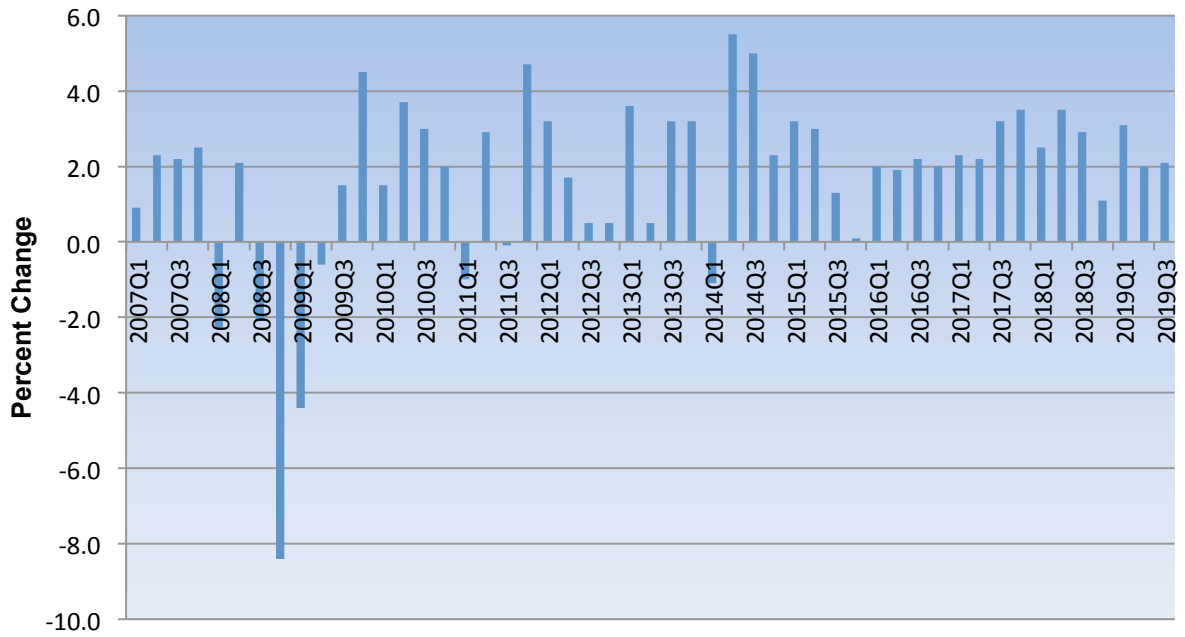
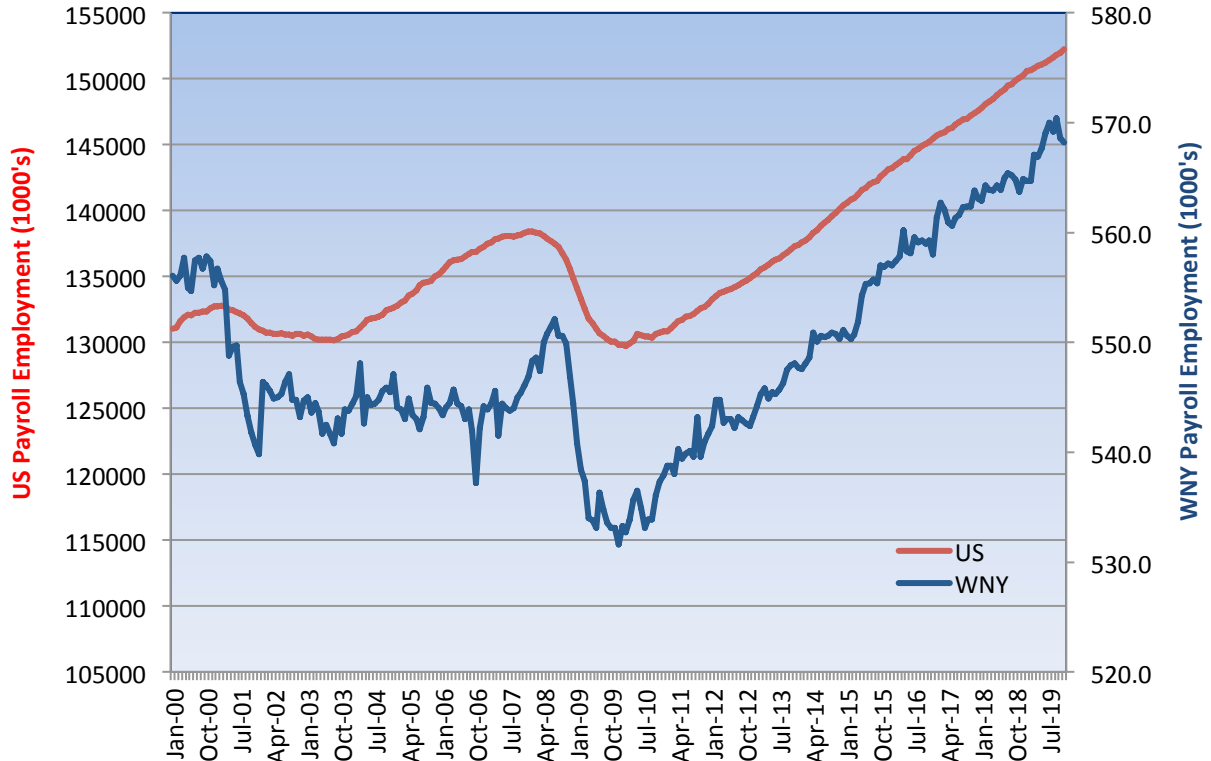


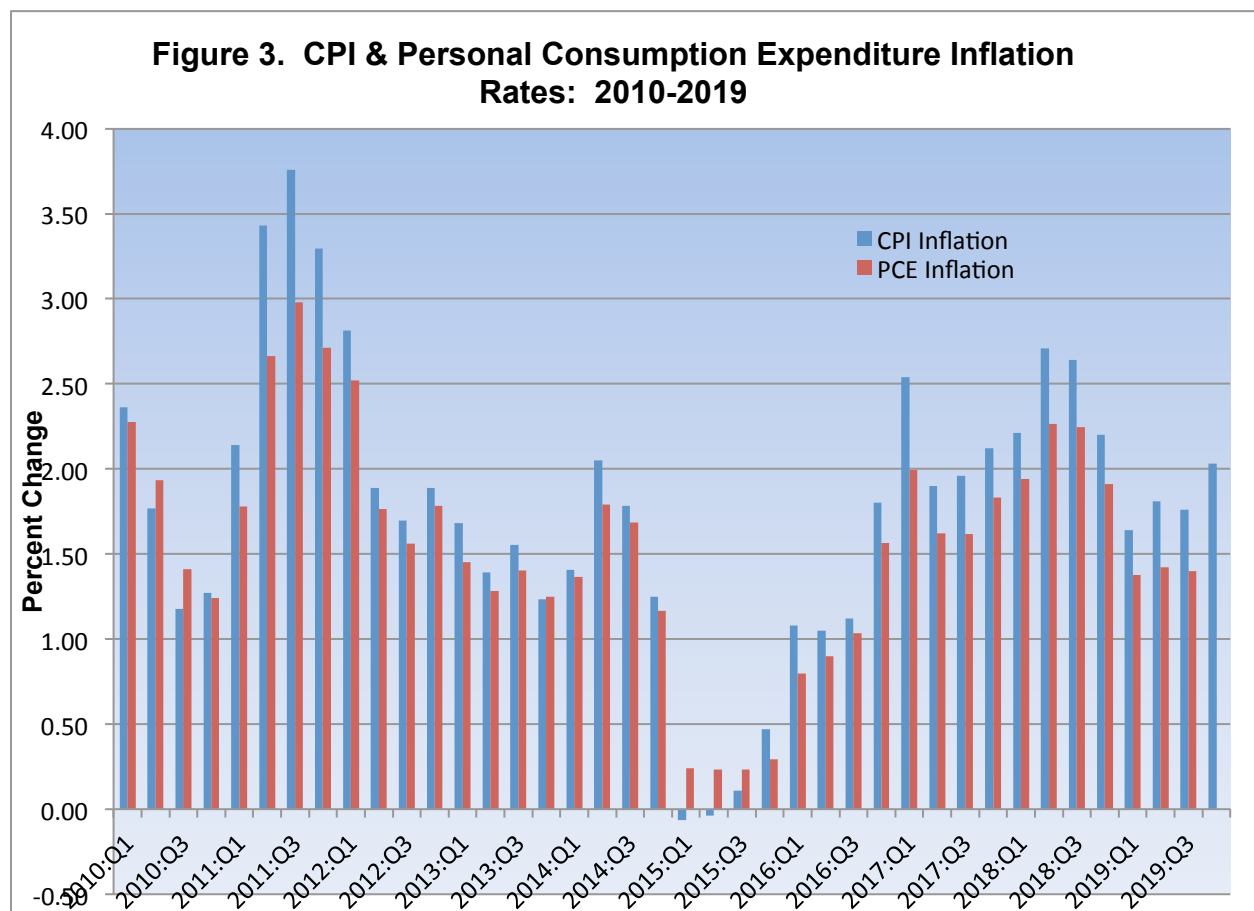
Figure 2. U.S and WNY Payroll Employment (2000-2019)



It is informative to compare national payroll employment growth with payroll employment growth in the Buffalo-Niagara Falls MSA (see Figure 2). Although there is an obvious positive correlation between national and regional employment growth, over the period 2009-2019, the national employment growth rate amounted to 1.59% while the local growth rate amounted to only 0.61%.

The Federal Open Market Committee lowered its federal funds target rate by 25 basis points during their October 2019 meeting to the 1.5% – 1.75% range. Despite strong domestic labor markets and economic growth, the FOMC cited lower global growth and a domestic inflation rate that was below their 2% target as the reason for the rate cut. During their December meeting, they took no further action.

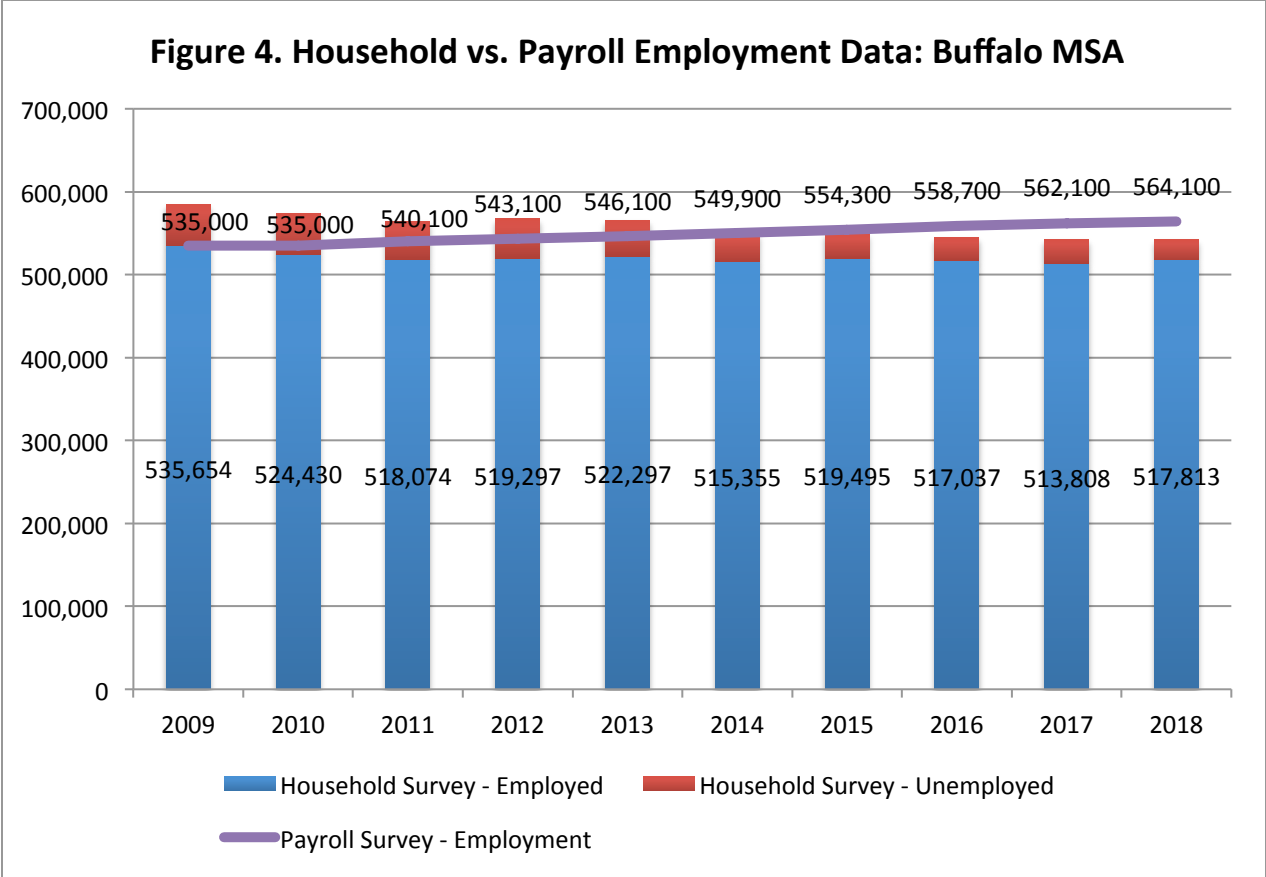
Quarterly inflation rates based on the Consumer Price Index (CPI) and the Personal Consumption Expenditure (PCE) deflator, the Fed’s preferred measure of inflation, are shown in Figure 3. The PCE inflation rate has been hovering in the 1.4% range over the past 3 quarters. This is below the 2% symmetric inflation target espoused by the Fed. CPI inflation has been approximately 1.8% the past 2 quarters and has been 2.3% over the period December 2018 to December 2019.



The Economic Outlook for the Buffalo Region

Similar to recent annual reports, employment growth in the Buffalo area lagged behind that of the nation again in 2019. Through November, the Buffalo MSA saw annual employment growth of 0.7%, whereas growth in employment in the U.S. was 1.6% over the same period. Figure 4 explains at least some of the slower growth in employment experienced in the Buffalo region in the years following the Great Recession. The Current Population Survey data reflects responses to a survey sent monthly to a sample of households. The count of individuals who report that they are employed during the week that includes the 12th of the month (Household Survey – Employed) are added to those who report that they are not working but are actively searching for work during that week (Household Survey – Unemployed) to obtain an estimate of the size of the labor force.

The Current Employment Statistics survey is sent to a sample of employers and counts the number of employees on the payroll of the companies during the pay period that includes the 12th of the month. These numbers are reflected in monthly estimates of job growth. As can be seen in Figure 4, in 2009, estimates of individuals employed were approximately equal to the counts of jobs on the payroll in the Buffalo MSA, but in 2018, the number of jobs in the area exceeded the size of the labor force.



Source: <https://www.bls.gov/data/>

The reasons for this discrepancy can be explained by individuals who hold more than one job and by individuals who do not live in the Buffalo MSA but work in the area. However, a region's shrinking labor force is hardly attractive to new business/job creation.

Regional personal income (PI) figures for the year 2018 were recently released by the BEA (<http://www.bea.gov/regional>). Real personal income growth rates measured in 2012 dollars over the period 2008-2018 are shown in Table 1 along with 2018 per capita income. One long standing concern we have expressed about the BEA personal income estimates is the dramatic swings that occur when the underlying series is revised. While the *QCEW* estimates provide a more stable measure, there is value in reviewing the BEA data.

Both Buffalo and Rochester seemed to have returned to their historical underperformance compared to the nation as a whole during 2018. Though, in 2008, 2009 and 2017, the regional economies outperformed the nation. We project the national growth rate for real PI to be 2.81% in 2019 (data for 2018: Q4 national PI was not available at the time this was written). Our projections of real PI growth for Buffalo and Rochester in 2019 are 1.30% and 1.20%, respectively.

Table 1

Real Personal Income Growth Rates: U.S. Buffalo & Rochester MSAs

| Year | US | Buffalo MSA | Rochester MSA |
|--|-----------------|--------------------|----------------------|
| 2008 | -0.20 | 0.64 | 1.71 |
| 2009 | -2.77 | 1.33 | 0.69 |
| 2010 | 2.39 | 1.77 | 2.24 |
| 2011 | 2.92 | 1.01 | 1.59 |
| 2012 | 3.00 | 1.45 | 2.73 |
| 2013 | -0.20 | -0.47 | -2.13 |
| 2014 | 4.01 | 1.25 | 0.42 |
| 2015 | 4.72 | 4.12 | 4.65 |
| 2016 | 1.28 | 0.58 | 0.10 |
| 2017 | 2.52 | 3.28 | 2.98 |
| 2018 | 3.07 | 0.73 | 0.60 |
| 2019 | 2.81 | 1.30 | 1.20 |
| 2018 personal income per capita | \$54,446 | \$50,414 | \$51,157 |

Real personal income growth rates for the Buffalo and Rochester MSAs over the period 2008 - 2018 are shown in Figures 5a and 5b. It is likely that both Buffalo and Rochester will experience lower real personal income growth in 2018 than the nation as a whole, given the fact that both Buffalo and Rochester area real PI growth rates have been less than the national rate in 8 of the past 12 years.

Figure 5a. Real Personal Income Growth Rates: US v. Buffalo

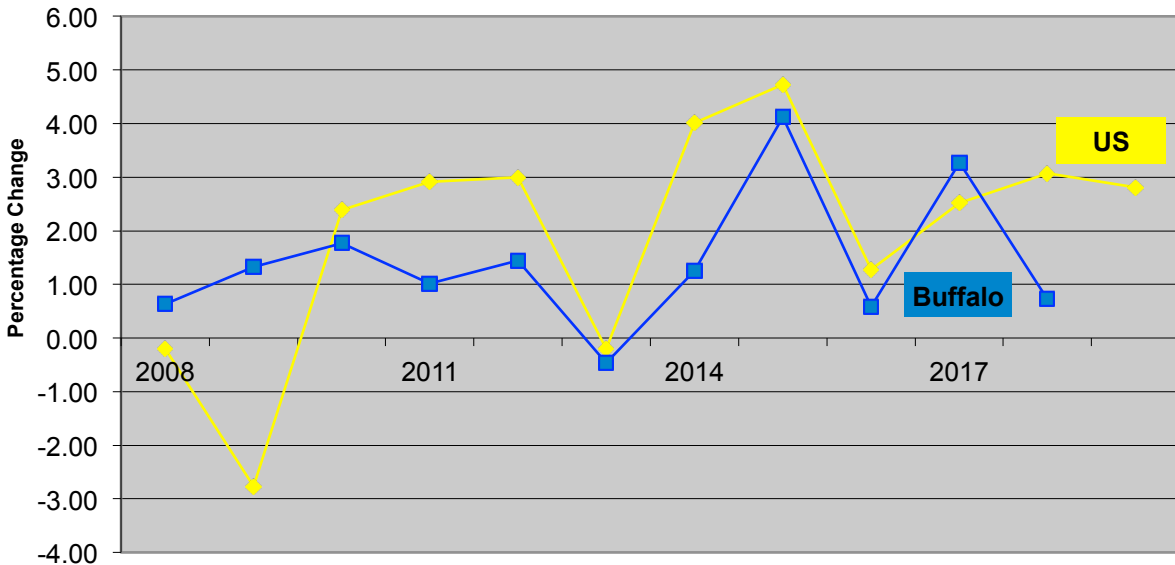
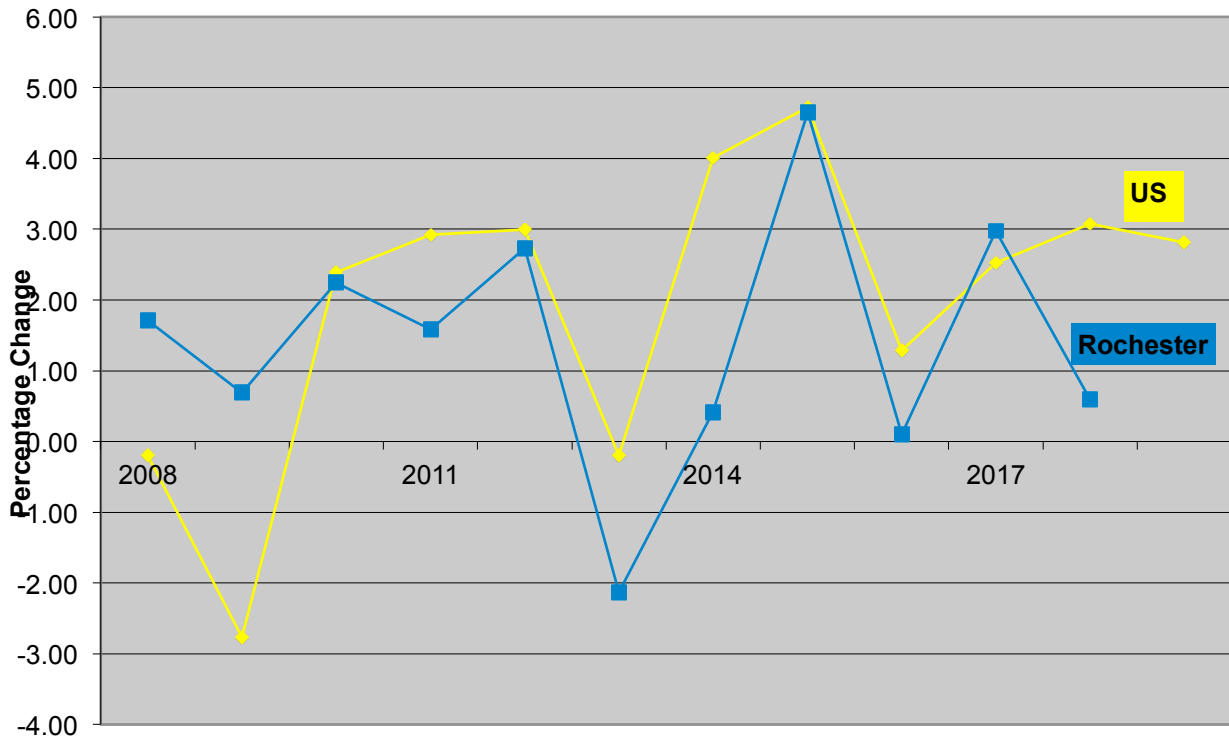


Figure 5b. Real Personal Income Growth Rates: US v. Rochester



Per capita personal income for Buffalo and the U.S. is shown in Figure 6a, while that for Rochester and the U.S. is shown in Figure 6b. It is apparent that both regions are underperforming the nation as a whole based on this metric.

Figure 6a. Per Capita Personal Income: US v. Buffalo

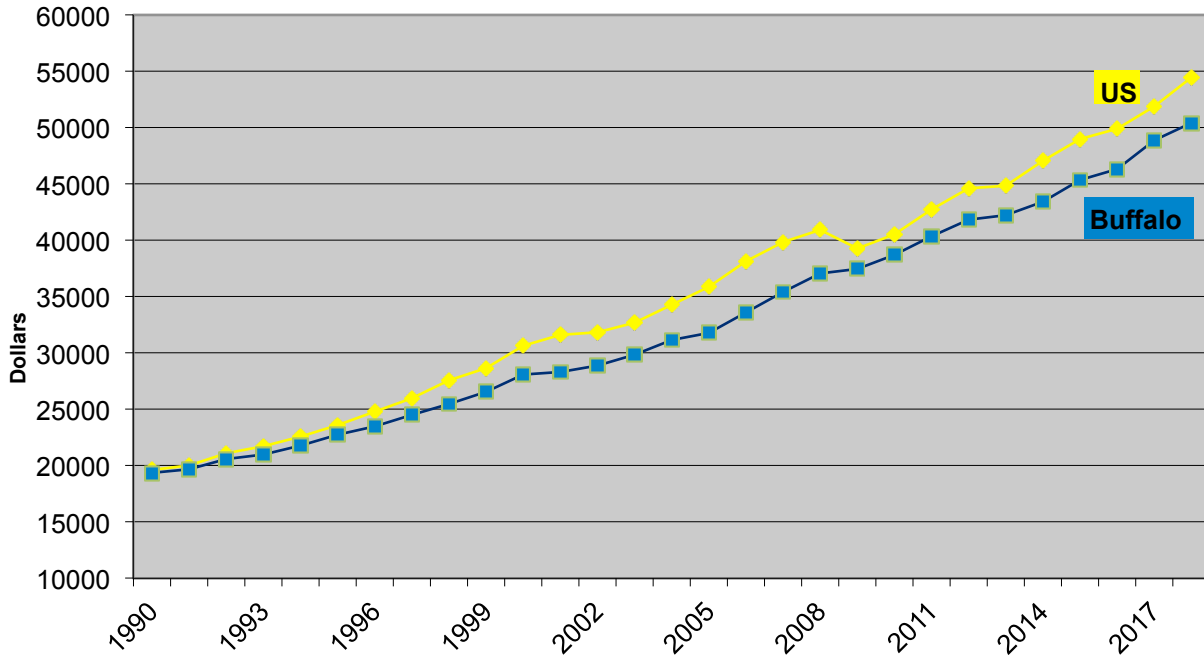
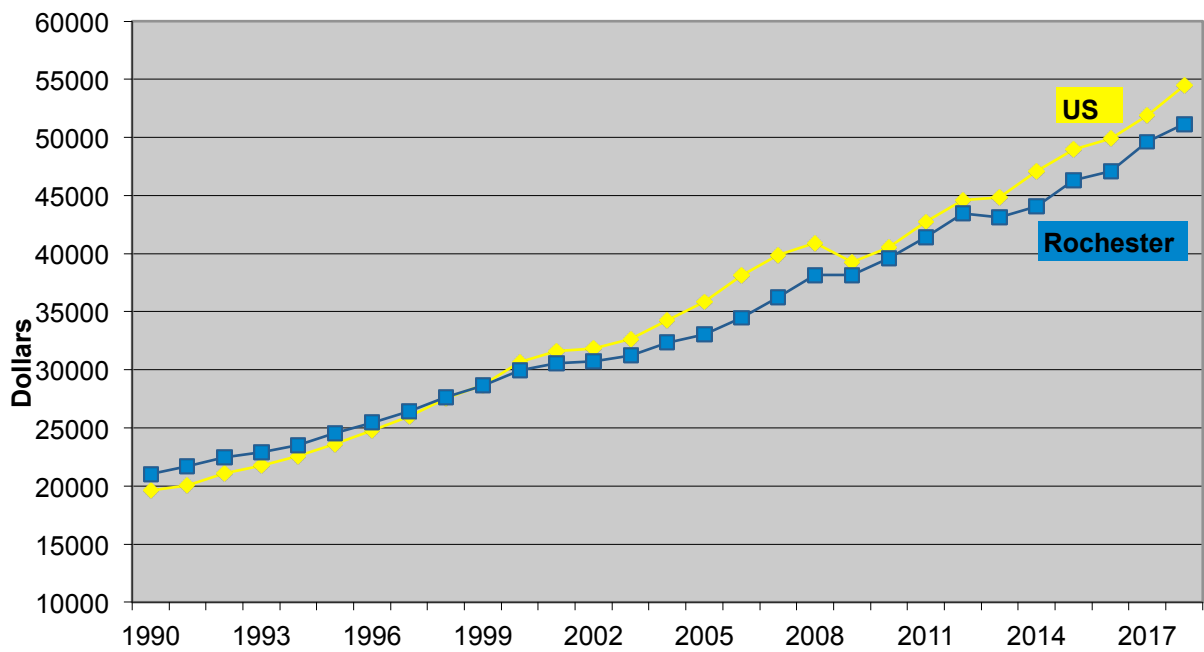


Figure 6b. Per Capita Personal Income: US v. Rochester



Tables 2a & 2b show the pattern of average annual pay in the upstate metropolitan areas compared to the average of the nation, based on QCEW data. While this information is for earnings rather than income, the results should give an indication of what has happened in the past and of what might be happening presently to per capita income in the region. Since earnings represent between 70 and 75% of total income, they may be a useful indicator of income patterns as they are emerging, but which can't be confirmed until next year's data is released.

Table 2a presents a comparison of the annual pay per worker by industry group for the upstate metropolitan areas in 2019 (an annualized measure of the first half of 2019). Table 2b presents the annual values for 2018. In 2018, the only industrial sectors where Buffalo workers earned more than the national average were state and local government employees. In 2019, state and local government workers were joined by leisure and hospitality, though it should be noted that the leisure and hospitality sector had the lowest paid workers both locally and nationally.

While highly specialized state employment in the region could be the cause of this distinction, it is hard to believe that local government employment is somehow unique or more productive than local government workers in the rest of the nation. Higher local government pay per worker is thus hard to explain in economic terms. In addition, not only do private sector workers in Buffalo still earn less than the national average, they also generally lag behind their counterparts in Rochester and Syracuse.

In 2019, as was true in 2018, it seems that the annualized estimate of the average pay for all workers in the Buffalo MSA is lower than the national average, and lower than in any of the other large upstate metropolitan areas. Again, as was the case in 2018, the same is true for construction employees, trade, transportation and utility industry employees, information industry employees, financial activities employees, education and health services employees, as well as other services and unclassified employees.

Earnings per worker in Buffalo in the goods-producing sector were lower than the average earnings in this sector nationally, though higher than for workers in the Rochester MSA. These levels of average private sector pay are not a sign of a growing and robust economy. Further, it raises the question of the sustainability of local public sector wages that are higher than the national average in a region where private sector wages are continuously below the national average.

Table 2a

Annual Pay Upstate MSAs by Industry: 2019**

| Industry | Buffalo MSA \$ | Rochester MSA \$ | Syracuse MSA \$ | U.S. Average \$ |
|--------------------------------------|----------------------|------------------------|-----------------------|-----------------------|
| Total, all industries | 50,930 | 51,005 | 51,790 | 59,231 |
| Total, Federal Government | 76,381 | 66,105 | 74,243 | 82,157 |
| Total, State Government | 74,982 | 66,244 | 64,831 | 61,967 |
| Total, Local Government | 58,099 | 51,709 | 54,667 | 53,084 |
| Total Private all industries | 48,420 | 50,380 | 50,109 | 59,333 |
| Goods-producing* | 64,847 | 63,562 | 65,516 | 67,266 |
| Natural resources & mining* | 37,251 | 40,895 | 35,455 | 63,769 |
| Construction* | 56,965 | 61,593 | 57,188 | 62,246 |
| Manufacturing* | 68,467 | 66,132 | 71,095 | 70,631 |
| Service-providing* | 45,282 | 47,334 | 47,181 | 57,648 |
| Trade, transportation & utilities* | 39,574 | 41,101 | 46,736 | 49,428 |
| Information* | 70,007 | 70,490 | 59,212 | 121,516 |
| Financial activities* | 70,172 | 75,917 | 72,913 | 105,756 |
| Professional & business services* | 61,726 | 61,516 | 61,818 | 78,480 |
| Education & health services* | 44,894 | 50,092 | 48,708 | 50,545 |
| Leisure & hospitality* | 24,737 | 19,364 | 19,400 | 24,121 |
| Other services* | 28,479 | 32,510 | 32,194 | 39,323 |
| Unclassified* | 30,604 | 42,401 | 30,666 | 56,027 |

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

*private sector wages

**Annualized from 1st half of 2019

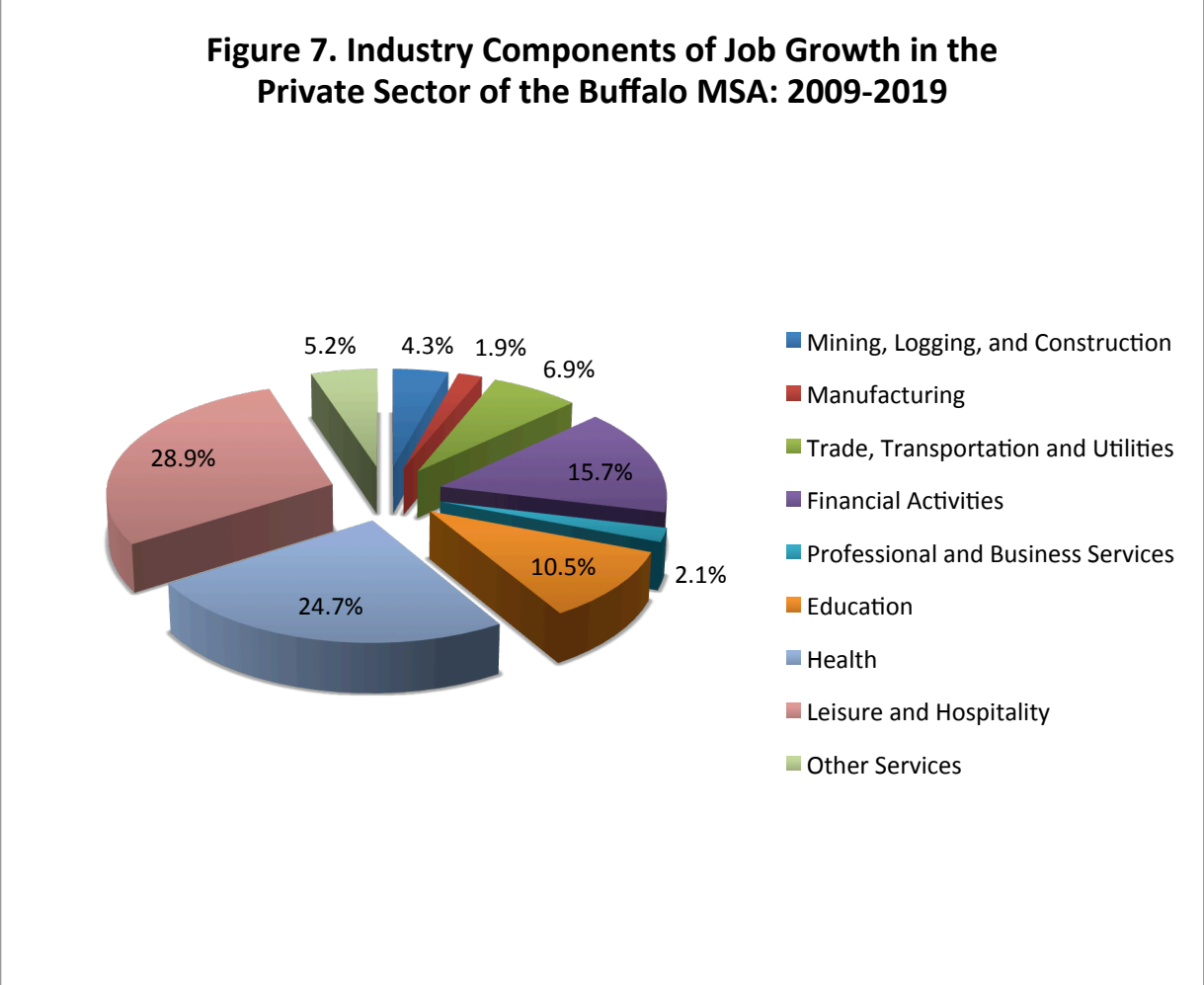
Table 2b**Annual Pay Upstate MSAs by Industry: 2018**

| Industry | Buffalo MSA \$ | Rochester MSA \$ | Syracuse MSA \$ | U.S. Average \$ |
|--------------------------------------|-------------------------------|---------------------------------|--------------------------------|--------------------------------|
| Total, all industries | 49,273 | 49,819 | 50,705 | 57,265 |
| Total, Federal Government | 79,270 | 66,524 | 73,997 | 83,666 |
| Total, State Government | 71,232 | 63,436 | 64,268 | 60,731 |
| Total, Local Government | 54,675 | 48,941 | 51,671 | 51,507 |
| Total Private all industries | 47,036 | 49,443 | 49,283 | 57,198 |
| Goods-producing* | 63,078 | 62,371 | 63,973 | 65,817 |
| Natural resources & mining* | 38,775 | 37,978 | 33,638 | 59,618 |
| Construction* | 57,640 | 60,704 | 59,781 | 62,732 |
| Manufacturing* | 66,029 | 65,338 | 68,080 | 68,528 |
| Service-providing* | 43,959 | 46,429 | 46,440 | 55,369 |
| Trade, transportation & utilities* | 38,697 | 40,278 | 45,297 | 47,607 |
| Information* | 63,879 | 66,170 | 57,353 | 113,795 |
| Financial activities* | 65,858 | 69,652 | 68,910 | 95,574 |
| Professional & business services* | 59,583 | 61,727 | 60,104 | 75,156 |
| Education & health services* | 44,663 | 49,665 | 49,823 | 50,442 |
| Leisure & hospitality* | 24,255 | 18,982 | 19,288 | 24,074 |
| Other services* | 27,887 | 31,942 | 33,401 | 38,474 |
| Unclassified* | 32,045 | 39,428 | 28,176 | 59,406 |

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

*private sector wages

Figure 7 shows the sources of employment growth in the Buffalo MSA since 2009, as the recovery from the Great Recession began. More than 50% of the job growth in the private sector came from the leisure and hospitality and health care industries. The leisure and hospitality industry has the lowest industry wage, and with much of the growth in health care concentrated in the home health care sub-industry, we do not expect substantial growth in wages driven by new job creation.



Source: <https://www.bls.gov/data/>

Table 3

% Difference between Annualized Estimate and Actual 2018 Average Pay per Worker

| Industry | Buffalo MSA | Rochester MSA | Syracuse MSA | U.S. Average |
|------------------------------------|--------------------|----------------------|---------------------|---------------------|
| Total, all industries | 0.39% | 0.66% | -0.33% | 0.16% |
| Total, Federal Government | -3.16% | -0.27% | -1.32% | -2.36% |
| Total, State Government | 1.25% | -0.21% | -1.67% | -0.92% |
| Total, Local Government | 4.10% | 2.98% | 4.53% | 0.11% |
| Total Private all industries | -0.24% | 0.37% | -0.96% | 0.32% |
| Goods-producing* | 0.29% | 1.01% | -0.88% | -0.16% |
| Natural resources & mining* | -4.92% | 3.23% | -3.28% | 2.10% |
| Construction* | -2.96% | -2.31% | -2.77% | -3.70% |
| Manufacturing* | 1.10% | 1.31% | -0.54% | 1.27% |
| Service-providing* | -0.29% | 0.30% | -0.83% | 0.46% |
| Trade, transportation & utilities* | -0.93% | 1.77% | 0.27% | 0.09% |
| Information* | 2.52% | 3.09% | 4.23% | 1.20% |
| Financial activities* | 4.61% | 4.01% | 3.68% | 8.15% |
| Professional business services* | 0.33% | 0.37% | -1.43% | 0.09% |
| Education & health services* | -2.19% | -1.63% | -3.48% | -2.47% |
| Leisure & hospitality* | -4.84% | -2.05% | -2.14% | -3.39% |
| Other services* | -2.70% | -1.71% | -1.34% | -1.54% |
| Unclassified* | -3.11% | -13.57% | -5.74% | -10.97% |
| Average error | -0.60% | -0.15% | -0.78% | -0.64% |

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

**private sector wages*

This issue continues the use of the *QCEW* wage data annualized from the first two quarters of the year. Table 3 shows the degree to which this process over- or underestimated the actual 2018 annual earnings per worker. The average error in the estimate was smallest for Rochester and largest for Syracuse. For Buffalo and for the nation, the estimate was about 0.6% lower than the average of the actual values.

Table 4**% Change in Annual Pay Upstate MSAs by Industry: 2016-19**

| Industry | Buffalo MSA | Rochester MSA | Syracuse MSA | U.S. Average |
|------------------------------------|--------------------|----------------------|---------------------|---------------------|
| Total, all industries | 10% | 7% | 9% | 10% |
| Total, Federal Government | 3% | 3% | 6% | 5% |
| Total, State Government | 31% | 14% | 40% | 8% |
| Total, Local Government | 11% | 10% | 11% | 10% |
| Total Private all industries | 9% | 6% | 7% | 11% |
| Goods-producing* | 8% | 8% | 6% | 8% |
| Natural resources & mining* | 5% | 20% | 13% | 14% |
| Construction* | 3% | 12% | -2% | 6% |
| Manufacturing* | 9% | 6% | 9% | 9% |
| Service-providing* | 10% | 6% | 7% | 11% |
| Trade, transportation & utilities* | 8% | 5% | 8% | 10% |
| Information* | 14% | -2% | -7% | 23% |
| Financial activities* | 12% | 15% | 13% | 19% |
| Professional business services* | 13% | 1% | 9% | 12% |
| Education & health services* | 7% | 7% | 3% | 5% |
| Leisure & hospitality* | 4% | 9% | 10% | 7% |
| Other services* | 12% | 15% | 5% | 9% |
| Unclassified* | 21% | 54% | 17% | 8% |

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

**private sector wages*

Table 4 presents the rate of change of average earnings per worker for the upstate metropolitan areas and the average throughout the nation. It is here that there might be glimmer of hope for the region. Though lower than the national average, as well as the other MSAs' growth rates for total employment between 2016 and 2019, the rate of growth of average annual pay was higher in the Buffalo MSA than for the other two metropolitan areas. It's growth rate for all industries equaled the national average over the period. Thus, though lower in earnings per worker than the rest of the nation and the upstate MSAs, on average, the growth of wages in the region is no longer falling behind.

NATIONAL, STATE & LOCAL BUSINESS INDICATORS

| | | | | | % change |
|--|-----------------|---------------|----------------|-----------------|-------------------|
| NATIONAL INDICATORS | | | | | 2018:III - |
| | 2018:III | 2019:I | 2019:II | 2019:III | 2019:III |
| Real GDP (billions of chained 2012\$) (1)(a) | 18,732.7 | 18,927.3 | 19,021.9 | 19,121.1 | 2.1 |
| US Personal Income (billions of \$) (1)(a) | 17,928.5 | 18,355.4 | 18,555.9 | 18,718.4 | 4.4 |
| | | | | | |
| | | | | | % change |
| | | | | | Dec-18 - |
| | Dec-18 | Oct-19 | Nov-19 | Dec-19 | Dec-19 |
| CPI Inflation Rate (%) (2)** | 1.91 | 1.76 | 2.05 | 2.29 | |
| Exchange Rate Canadian cents/US \$ (3)(b) | 136.41 | 131.64 | 132.81 | 129.90 | -4.77 |
| 10 Year Treasury Note Yield (%) (3)(b) | 2.68 | 1.69 | 1.78 | 1.92 | -0.76 |
| 3 Month Treasury Bill Yield (%) (3)(b) | 2.45 | 1.54 | 1.59 | 1.55 | -0.90 |
| S&P 500 Stock Index (3)(b) | 2,506.85 | 3,037.56 | 3,140.98 | 3,230.78 | 28.88 |
| Dow-Jones Industrial Average (3)(b) | 23,327.46 | 27,046.23 | 28,051.41 | 28,538.44 | 22.34 |
| LABOR MARKET TRENDS (2) | | | | | |
| Nonag Civilian Employment | | | | | |
| US (1000's)(a) | 150,275 | 151,982 | 152,238 | 152,383 | 1.40 |
| Change from previous month | 227 | 152 | 256 | 145 | |
| NY State (1000's)(a)* | 9,714.6 | 9,810.8 | 9,826.2 | | 1.20 |
| WNY (1000's)(a)* | 570.7 | 576.3 | 575.7 | | 0.72 |
| Unemployment Rate (%) | | | | | |
| US (a) | 3.9 | 3.6 | 3.5 | 3.5 | -0.4 |
| NY State (a)* | 3.9 | 4.0 | 4.0 | | 0.1 |
| WNY* | 4.1 | 4.0 | 3.9 | | 0.3 |
| Ave. Weekly Hours in Mfg. US (a) | 42.0 | 41.4 | 41.4 | 41.4 | -1.43 |
| Ave. Weekly. Earnings in Mfg. US \$(a) | 917.70 | 923.63 | 926.12 | 929.84 | 1.32 |
| US Private Employment (1000's)(a) | 127,790 | 129,355 | 129,598 | 129,737 | 1.52 |
| WNY EMPLOYMENT BY SECTOR (1000's)(2) | | | | | |
| Mining, Logging & Construction | 19.8 | 22.4 | 20.7 | | -1.90 |
| Manufacturing | 52.6 | 50.4 | 50.9 | | -2.86 |
| Trade, Transportation & Utilities | 104.4 | 102.8 | 104.5 | | 0.29 |
| Durable Goods | 32.6 | 31.0 | 31.4 | | -3.09 |
| Finance Activities | 36.6 | 37.5 | 37.2 | | 1.92 |
| Government | 91.5 | 91.0 | 91.4 | | 0.22 |
| (1) US Dept. of Commerce | | | | | |
| (a) Seasonally Adjusted | | | | | |
| (2) US Dept. of Labor | | | | | |
| (b) End of month data | | | | | |
| (3) Wall Street Journal | | | | | |
| *Nov-18 - Nov-19 % change | | | | | |
| **% change from same month in previous year | | | | | |

