

Employment in New York State

OCTOBER 2019

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Department
of Labor

RESEARCH AND STATISTICS

At a Glance

New York State had 9,783,800 total nonfarm jobs in August 2019, including 8,280,700 private sector jobs, after seasonal adjustment. The state's seasonally adjusted private sector job count increased by 0.1% in July-August 2019, while the nation's private sector job count also increased by 0.1% over this period. From August 2018 to August 2019, the number of private sector jobs increased by 1.3% in the state and by 1.5% in the nation (not seasonally adjusted).

In August 2019, New York State's seasonally adjusted unemployment rate was unchanged at 4.0%. The comparable rate for the nation in August 2019 was 3.7%.

New York State's seasonally adjusted labor force participation rate decreased from 60.8% in July 2019 to 60.7% in August 2019.

Change in Nonfarm Jobs

August 2018 - August 2019

(Data not seasonally adjusted, net change in thousands)

	Net	%
Total Nonfarm Jobs	117.4	1.2%
Private Sector	106.3	1.3%
Goods-producing	7.7	0.9%
Nat. res. & mining	0.1	1.7%
Construction	11.6	2.8%
Manufacturing	-4.0	-0.9%
Durable gds.	-4.8	-1.9%
Nondurable gds.	0.8	0.4%
Service-providing	109.7	1.2%
Trade, trans. & util.	14.6	0.9%
Wholesale trade	0.5	0.2%
Retail trade	7.0	0.8%
Trans., wrhs. & util.	7.1	2.5%
Information	1.3	0.5%
Financial activities	-4.1	-0.6%
Prof. & bus. svcs.	-3.5	-0.3%
Educ. & health svcs.	56.3	2.8%
Leisure & hospitality	31.6	3.1%
Other services	2.4	0.6%
Government	11.1	0.8%

October is National Cybersecurity Awareness Month...

A Look at the Booming Cybersecurity Field

"Cyberattacks and data breaches are facts of life for government agencies, businesses and individuals alike in today's digitized and networked world."

Aaron Smith, Pew Research Center

October is National Cybersecurity Awareness Month! It is a joint effort between government and industry aimed at raising awareness about the importance of cybersecurity. To recognize this annual event, this article highlights some key aspects of the booming cybersecurity field.

Since the founding of the World Wide Web 30 years ago, the internet as we know it has rapidly transformed almost every aspect of our lives – some for better, some for worse. The internet's architects never imagined that it would one day carry most of the world's information, communications and commerce and would be available for people to use (or misuse).

What is Cybersecurity?

As our reliance on digital technology expands, so does the opportunity for exploitation. This in turn has given rise to the fast-growing field of "cybersecurity," which tech company Cisco defines as: *"...the practice of protecting (computer) systems, networks and programs from digital attacks. These cyberattacks are usually aimed at accessing, changing, or destroying sensitive information; extorting money from users; or interrupting normal business processes."*

Cybersecurity is big business. In 2019, global spending on security-related hardware, software and services will top \$106 billion, including \$46 billion in the U.S., according to data provider IDC.

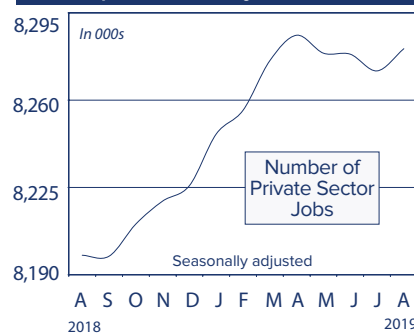
More Cyberattacks

Today, cybercriminals use automated tools to attack millions of devices simultaneously.

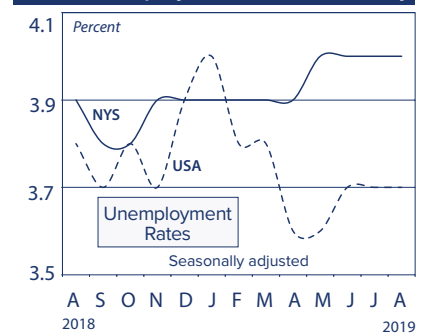
Continued on page 2

In August...

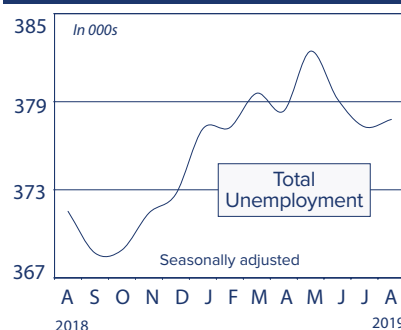
...NYS private sector jobs increased



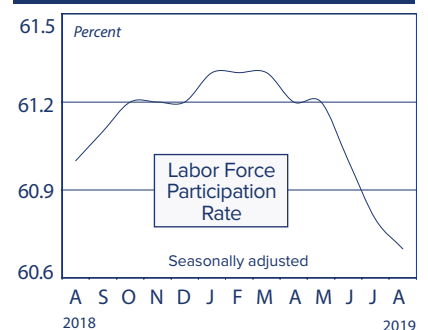
...NYS unemployment rate held steady



...NYS unemployment increased



...NYS LF participation rate decreased



Focus on the Mohawk Valley

Holiday Hiring Lifts Retail in the Mohawk Valley

by Brion Acton, Labor Market Analyst, Mohawk Valley

With the kids back in school, the temperature falling, and the leaves changing color, autumn must be here! This also means the holiday shopping season is right around the corner.

Holiday retail sales are a critical component of the overall U.S. economy. They reached \$1.09 trillion in 2018, according to the Census Bureau. Heading into the gift-giving season, holiday shoppers are expected to spend 4.5-5.0% more this year than they did last year, according to consulting firm Deloitte.

In 2018, the Mohawk Valley's retail sector employed 22,400 workers and paid out more than \$626.3 million in total wages, according to data from the Quarterly Census of Employment and Wages (QCEW). Looked at another way, retailers in the Mohawk Valley accounted for 15.1%, or almost one-sixth, of private sector employment in the region in 2018.

Holiday Job Gains

Employment in retail trade is highly seasonal. Retail stores tend to ramp up hiring in October, reach peak employment in December, then shed seasonal employees in January. In addition to supporting a significant number of seasonal jobs, consumer spending during the holiday shopping season typically generates significant amounts of sales tax revenues for state and local governments.

QCEW data from 2014 to 2018 were analyzed to determine which local retail industries experienced the largest job gains during the holiday shopping season. To answer this question, the average net jobs change occurring in each retail industry between September and December was used as a proxy for holiday hiring.

In 2014-18, the region's average September employment level in retail trade was 22,480, while the comparable December figure was 23,200. Thus, the retail trade sector in the Mohawk Valley region registered an average boost of 720 jobs, or 3.2%, during the holiday seasons since 2014.

Four retail industries registered seasonal job gains of at least 50, including:

- General Merchandise Stores (+410)
- Clothing and Accessories Stores (+120)
- Sporting Goods, Hobby, Book and Music Stores (+70)
- Health and Personal Care Stores (+50)

These four retail industries add approximately 650 jobs in September-December, or about 90% of the gain in retail jobs over the local holiday shopping season.

Not all retail industries benefit equally from holiday hires. When looking at holiday job gains on a percentage basis, several industries typically experience stronger-than-average employment increases. The largest percentage gains in 2014-18 were recorded in clothing and accessories stores (+13.1%), sporting goods, hobby, book and music stores (+8.8%), and general merchandise stores (+8.2%).

Holiday Job Gains

What occupations are typically filled during the holiday hiring surge? Occupational Employment Statistics data indicate the five most common job titles and their share of overall sector jobs in the Mohawk Valley were retail salespersons (23.7%), cashiers (21.4%), stock clerks and order fillers (7.0%),



"The retail trade sector provides many employment opportunities during the holiday shopping season."

first-line supervisors of retail sales workers (6.0%) and customer service reps (3.7%).

The retail trade sector provides many entry-level employment opportunities, especially during the holiday shopping season. The U.S. Bureau of Labor Statistics notes that "typically, there are no formal education requirements for retail sales workers. Most receive on-the-job training, which usually lasts a few days to a few months."

Despite the modest formal education requirements of most retail positions, many retailers report they face a challenging hiring environment. Some report they need to offer extra perks such as profit-sharing and paid time off for part-time associates in order to attract enough workers to staff their stores for the holidays.

Summing Up

With forecasters pointing toward a robust 2019 holiday shopping season, retailers in the Mohawk Valley have already started looking for seasonal help. Big-box general merchandise stores will be the main driver for seasonal hires, while clothing and accessory stores, and sporting goods, hobby, book and music stores will likely have some of the largest relative gains in seasonal employment.

Cybersecurity... from page 1

As a result, widespread data breaches, network outages, computer viruses and hacking have become commonplace and are on the rise.

Risk Based Security, a cyberthreat intelligence company, reports the number of data breaches in the first half of 2019 were up 54% compared to the same period in 2018. Nearly 60 million Americans have been affected by identity theft, according to a 2018 online survey by The Harris Poll. According to the Federal Trade Commission, the two most common types of identity theft include employment- or tax-related fraud -- where a criminal uses someone else's Social Security number to gain employment or to file an income tax return -- and credit card fraud.

In 2019, more than 40 U.S. municipalities, including Albany, New York, were victims of ransomware attacks. In these attacks, a city's computer system was compromised, and criminals demanded a ransom, typically paid in cryptocurrency. For example, online public services in Baltimore remained down for about three weeks in 2018 because the city refused to pay a \$76,000 ransom. City officials now estimate the cost to repair the damage at \$18 million. In contrast, two Florida cities struck by hackers in 2019 -- Lake City and Riviera Beach -- opted to pay their cyberattackers \$600,000 and \$460,000, respectively, in bitcoin.

The private sector has also been struck by cybercriminals in recent years. For example, in

July 2019, Capital One suffered a data breach in which more than 100 million customer accounts and credit card applications were compromised. In May 2017, hackers struck Equifax, exposing the personal information of 147 million people. The biggest known breach to date was a 2013 attack on Yahoo, which affected three billion user accounts.

Growing Demand for Cybersecurity Workers

Given the growing number of cyberattacks worldwide, workers in the cybersecurity field are in great demand. According to CyberSeek, an online tool which tracks cybersecurity job openings, New York State ranked #5 in the nation with 14,698 job postings from September 2017 to August 2018.

Unemployment Rates in New York State

Data Not Seasonally Adjusted

	AUG '18	AUG '19		AUG '18	AUG '19		AUG '18	AUG '19
New York State	4.0	4.2	Hudson Valley	3.8	4.0	Finger Lakes	3.9	4.2
Capital	3.4	3.7	Dutchess	3.5	3.8	Genesee	3.3	3.5
Albany	3.5	3.8	Orange	3.8	4.1	Livingston	3.6	3.9
Columbia	2.9	3.1	Putnam	3.6	3.9	Monroe	4.1	4.4
Greene	4.0	4.4	Rockland	3.7	3.9	Ontario	3.3	3.6
Rensselaer	3.7	3.9	Sullivan	3.5	3.4	Orleans	4.5	5.0
Saratoga	3.1	3.3	Ulster	3.8	3.9	Seneca	3.2	3.4
Schenectady	3.7	4.0	Westchester	3.9	4.1	Wayne	3.5	3.9
Warren	3.3	3.7	Mohawk Valley	4.0	4.3	Wyoming	3.4	3.7
Washington	3.3	3.6	Fulton	4.3	4.7	Yates	3.0	3.3
Central New York	3.9	4.2	Herkimer	4.0	4.4	Western New York	4.2	4.5
Cayuga	4.1	4.2	Montgomery	4.5	4.8	Allegany	4.9	5.2
Cortland	4.1	4.3	Oneida	3.9	4.2	Cattaraugus	4.5	4.7
Madison	3.9	4.1	Otsego	3.6	3.8	Chautauqua	4.2	4.4
Onondaga	3.7	4.0	Schoharie	4.1	4.4	Erie	4.1	4.3
Oswego	4.6	5.1	North Country	4.3	4.7	Niagara	4.6	4.9
Southern Tier	4.0	4.3	Clinton	3.8	4.2	Long Island	3.7	3.9
Broome	4.5	4.7	Essex	3.6	3.8	Nassau	3.5	3.7
Chemung	4.3	4.3	Franklin	4.3	4.6	Suffolk	3.8	4.0
Chenango	3.6	3.9	Hamilton	2.9	3.1	New York City	4.3	4.3
Delaware	3.9	4.4	Jefferson	4.4	5.0	Bronx	6.0	5.9
Schuyler	3.7	3.8	Lewis	3.9	4.4	Kings	4.5	4.5
Steuben	4.0	4.1	St. Lawrence	5.2	5.6	New York	3.8	3.8
Tioga	3.7	3.9				Queens	3.7	3.8
Tompkins	3.6	3.9				Richmond	4.5	4.4

Cybersecurity... from page 2

Many firms are choosing to employ information security analysts (ISAs) and other IT specialists. ISAs plan and perform security measures to protect an organization's computer network systems. Most ISA positions require a bachelor's degree in a computer-related field. Employers usually prefer to hire candidates with relevant job experience. Therefore, many security specialists get their start in related positions such as system administrator, software developer or network engineer. They then transfer into a cybersecurity role. While most ISAs work for computer companies or serve as consultants, they are also employed by large organizations and financial firms.

In New York State, employment of ISAs is projected to grow by 28% from 2016 to 2026, more than twice as fast as overall employment. Demand for ISAs is expected to be very strong, in part due to the healthcare industry's expanding use of electronic medical records.

In addition to their projected strong job growth, ISAs in New York State are among the best paid in the nation. In 2019, they received an annual average wage of more than \$124,000, according to data from the Occupational Employment Statistics (OES) program. The average annual pay for ISAs in New York State is about 20% higher than their national counterparts, according to OES data.

Filling the Worker Pipeline

To help meet the growing demand for cybersecurity workers, New York State's colleges and universities have developed robust talent pipelines. In total, more than 25 institutions of higher learning across the state offer programs specifically geared toward cybersecurity. This list includes UAlbany's College of Emergency Preparedness, Homeland Security and Cybersecurity, NYU's Center for Cybersecurity, RIT's Center for Cybersecurity, and Syracuse University's Institute for National Security and Counterterrorism.

In addition, in 2016 the state created the Scholarship Program for Analysis and Research in Cybersecurity (SPARC). The SPARC program provides full tuition for students to get a cybersecurity degree at any SUNY campus in exchange for working an equal number of years in a cybersecurity position for a government agency in New York after graduation.

New public-private partnerships are another source of talent to help fill the cybersecurity worker pipeline. With New York City's high concentration of financial services firms, cybersecurity takes on special significance there. In 2018, the city launched Cyber NYC, a collection of programs designed to increase the number of cybersecurity professionals

working in the city from 6,000 to 16,000. Funding for the initiative includes \$70 million from private companies and \$30 million from the city.

Summing Up

With the rapid increase in cybercrime in recent years, information security is more important than ever before. As the home of New York City – the financial capital of the world – New York State finds itself at the epicenter of this threat. To help meet this growing challenge, the Empire State has emerged as a leader in training cybersecurity professionals by investing in world-class education and innovative public-private partnerships. As a result, we continue to produce and attract top-notch cybersecurity talent.

by Tammy Marino and Kevin Phelps

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OFFICIAL BUSINESS

Regional Analysts' Corner

CAPITAL

Kevin Alexander — 518-242-8245

Private sector jobs in the Capital Region declined by 1,500, or 0.3 percent, to 450,500 in the year ending August 2019. The largest gains were in educational and health services (+500), natural resources, mining and construction (+500) and financial activities (+300). Job losses were centered in professional and business services (-1,200) and trade, transportation and utilities (-900).

CENTRAL NY

Karen Knapik-Scalzo — 315-479-3391

Over the past year, private sector jobs in the Syracuse metro area rose by 3,900, or 1.5 percent, to 268,500 in August 2019. Growth was centered in leisure and hospitality (+2,600), educational and health services (+900), professional and business services (+900) and natural resources, mining and construction (+500). Job losses were greatest in trade, transportation and utilities (-700) and financial activities (-600).

FINGER LAKES

Tammy Marino — 585-258-8870

The Rochester metro area's private sector job count grew by 1,200, or 0.3 percent, to 462,400 over the year ending August 2019. The largest gains were in natural resources, mining and construction (+2,000), educational and health services (+1,800), leisure and hospitality (+1,500) and trade, transportation and utilities (+500). Losses were centered in professional and business services (-2,800), manufacturing (-1,500) and financial activities (-500).

HUDSON VALLEY

John Nelson — 914-997-8798

For the year ending August 2019, private sector jobs in the Hudson Valley increased by 11,600, or 1.4 percent, to 823,900. Job gains were largest in educational and health services (+6,500), leisure and hospitality (+5,500), natural resources, mining and construction (+2,900) and financial activities (+2,100). Losses were largest in trade, transportation and utilities (-3,800) and professional and business services (-2,500).

LONG ISLAND

Shital Patel — 516-934-8533

The private sector job count on Long Island increased over the past year by 6,100, or 0.5 percent, to 1,170,500 in August 2019. Employment grew in educational and health services (+7,400), natural resources, mining and construction (+6,000), leisure and hospitality (+3,900) and manufacturing (+1,000). The largest losses were in professional and business services (-7,500), other services (-1,800) and financial activities (-1,400).

MOHAWK VALLEY

Brion Acton — 315-793-2282

For the year ending August 2019, the private sector job count in the Mohawk Valley rose by 200, or 0.1 percent, to 150,100. The largest gains were in educational and health services (+400), natural resources, mining and construction (+200) and professional and business services (+200). Job losses were centered in trade, transportation and utilities (-400) and manufacturing (-200).

NEW YORK CITY

Elena Volovelsky — 718-613-3971

Private sector jobs in New York City rose over the year by 84,200, or 2.1 percent, to 4,023,800 in August 2019. Gains were greatest in educational and health services (+44,700), professional and business services (+12,800), leisure and hospitality (+11,900), trade, transportation and utilities (+10,200), other services (+6,100) and information (+5,000). Job losses were centered in financial activities (-5,200) and manufacturing (-2,200).

NORTH COUNTRY

Anthony Hayden — 518-523-7157

For the 12-month period ending August 2019, the private sector job count in the North Country region increased by 800, or 0.7 percent, to 115,200. The largest gain was in leisure and hospitality (+600). Several other industry sectors experienced employment gains or losses of 100 over the past year.

SOUTHERN TIER

Christian Harris — 607-741-4480

Private sector jobs in the Southern Tier increased by 2,600, or 1.1 percent, to 231,500 in the year ending August 2019. The largest gains were in educational and health services (+2,800) and leisure and hospitality (+800). Job losses were centered in trade, transportation and utilities (-400), manufacturing (-300) and natural resources, mining and construction (-200).

WESTERN NY

Timothy Glass — 716-851-2742

Over the past year, the private sector job count in Western New York rose by 3,900, or 0.7 percent, to 556,800 in August 2019. Employment growth was centered in educational and health services (+2,400), leisure and hospitality (+1,600), financial activities (+1,000) and trade, transportation and utilities (+400). Job losses were centered in manufacturing (-1,600).

