

# Employment in New York State



Research and Statistics

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## At a Glance

New York State had 9,552,600 total nonfarm jobs in November 2017, including 8,098,400 private sector jobs, after seasonal adjustment. The state's seasonally adjusted private sector job count increased by 0.3% between October and November 2017, while the nation's job count increased by 0.2% over this period. From November 2016 to November 2017, the number of private sector jobs increased by 1.4% in the state and by 1.7% in the nation (not seasonally adjusted).

In November 2017, New York State's seasonally adjusted unemployment rate decreased from 4.8% to 4.7%. The comparable rate for the nation in November 2017 was 4.1%.

The state's seasonally adjusted labor force participation rate did not change over the month, remaining at 61.2% in November 2017.

## Change in Nonfarm Jobs

November 2016 - November 2017

(Data not seasonally adjusted, net change in thousands)

	Net	%
Total Nonfarm Jobs	113.1	1.2%
Private Sector	109.3	1.4%
Goods-producing	-3.9	-0.5%
Nat. res. & mining	0.1	1.9%
Construction	9.9	2.6%
Manufacturing	-13.9	-3.1%
Durable gds.	-10.6	-4.1%
Nondurable gds.	-3.3	-1.8%
Service-providing	117.0	1.3%
Trade, trans. & util.	-4.4	-0.3%
Wholesale trade	0.2	0.1%
Retail trade	-10.2	-1.0%
Trans., wrhs. & util.	5.6	1.9%
Information	-4.0	-1.5%
Financial activities	3.9	0.6%
Prof. & bus. svcs.	34.6	2.6%
Educ. & health svcs.	53.4	2.6%
Leisure & hospitality	23.8	2.6%
Other services	5.9	1.4%
Government	3.8	0.3%

Many STEM occupations are fast-growing and high-paying...

## Expanded State DOL STEM List Includes Many Blue-Collar Job Titles for First Time

The science, technology, engineering and math (STEM) workforce plays a key role in our modern economy as STEM helps to drive innovation and foster economic growth. Many STEM occupations enjoy faster-than-average expected job growth due to high demand among employers, while also commanding significantly above-average wages.

In recent years, many varying lists of STEM occupations have been compiled, as there is no commonly agreed upon definition of STEM. These lists usually focus on titles requiring at least a four-year college degree. Yet, as noted in an influential 2013 Brookings Institution research paper called *The Hidden STEM Economy*, "high-skilled blue-collar and technical STEM workers have made, and continue to make, outsized contributions to innovation."

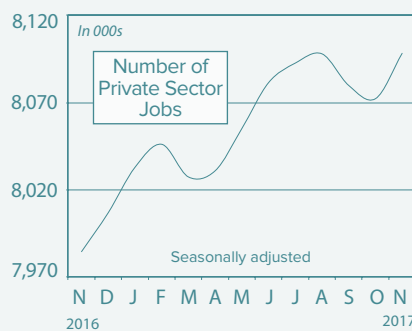
What exactly is blue-collar STEM? One analyst defines it as "the technical skills and infrastructure required for workers with less than a four-year degree to contribute to and take full advantage of today's economy." Blue-collar STEM workers typically need a high school diploma plus moderate- or long-term on-the-job training.

In response to the growing need to identify blue-collar STEM jobs, the State Department of Labor has recently revised and expanded its list of STEM occupations to include a significant number (65) of blue-collar occupations. The balance of this article provides a brief overview of the Department's new list, with a special look at blue-collar STEM job titles.

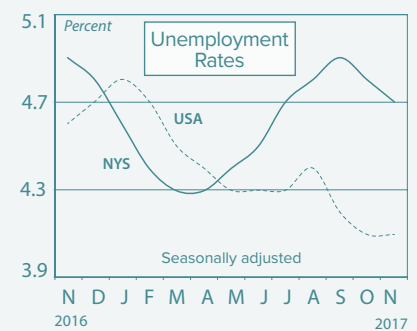
Continued on page 2

## In November...

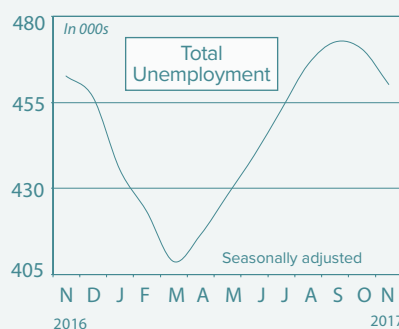
...NYS private sector jobs increased



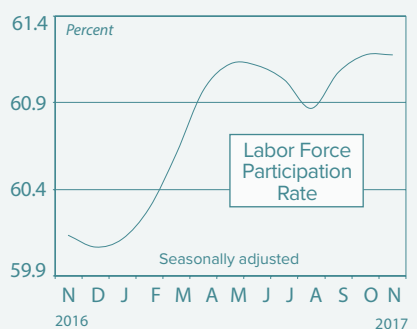
...NYS unemployment rate decreased



...NYS unemployment decreased



...NYS LF participation rate held steady



# Focus on New York City

## NYC's Retail Sector: Troubled with Some Bright Spots

by James Brown, Labor Market Analyst, New York City

New York City's retail trade sector was a very strong performer coming out of the 2009 recession as employment increased by more than 20% by 2014. This outpaced the City's overall growth in private sector jobs (+13.9%).

In 2015, job growth in retail trade slowed significantly, edging up less than 0.5%, while the City's private sector job count climbed by more than 3.0%. The slowdown worsened in 2016 as retail jobs fell slightly (-0.6%), even as the City's private sector job count climbed 2.3%. Losses in the City's two largest retail industries – food and beverage stores and clothing and accessory stores – were primarily responsible for this abrupt reversal.

### Industry Challenges

The Great Atlantic & Pacific Tea Company, which operated supermarkets under the A&P, Pathmark, Waldbaum's and Food Emporium brands, filed for bankruptcy and closed all their stores in late 2015. The food and beverage store industry was an area of particular strength, with employment growth averaging better than five percent annually from 2012 to 2014. However, due in large part to the A&P closures, employment at food and beverage stores fell by nearly 1,000 in 2016, breaking 11 straight years of annual job gains. Preliminary data for the first half of 2017 indicate that jobs at food and beverage stores are rebounding, rising more than 2% to record levels.

The job count at clothing retailers in New York City actually peaked in 2013, but the modest loss suffered in 2014 gave little indication of the problems yet to

come. Since 2015, numerous apparel retailers have filed for bankruptcy and/or announced major store closures. Household names such as Aéropostale, Abercrombie & Fitch, American Apparel, Pacific Sunwear and Wet Seal, as well as discount shoe retailer Payless, are among the chains that announced store closures.

Apparel stores face a variety of headwinds. These include the increasing popularity of private-label clothing (which hurts name-brand retailers), strong competition from online retailers and high debt levels after a series of private equity buyouts. Clothing store employment fell by more than 5% in 2013-2016. Data for the first-half of 2017 show losses continued. About half of New York City's clothing stores and two-thirds of the industry's jobs are in Manhattan. Because of this concentration, retail jobs fell in Manhattan in both 2015 and 2016, even as it continued to grow in the other four boroughs.

Another large retail industry, general merchandise stores, performed well through 2015, but ran into trouble in 2016. Despite well-documented problems at department stores, the job count in the City's general merchandise industry rose every year from 2004 through 2015, increasing by more than 50% over that period. Expansion by national discount department store chains, including Target and Kohl's, as well as strong growth by dollar stores, fueled growth despite problems elsewhere in the industry. However, in 2016, employment in general merchandise stores fell by 1.6% and the losses accelerated in the first half of 2017 (-2.4%). Macy's and Sears



"New York City's retailers remain a significant economic force."

both announced store closings in New York City during 2017, as traditional department stores continued to struggle in a very competitive retail environment.

Health and personal care stores, which replaced general merchandise stores as the third largest retail industry, are the steadiest performer in the retail sector. Employment in this industry increased every year between 2002 and 2016, for a total gain of over 65%. Preliminary data for the first half of 2017 indicate that job growth at health and personal care stores remains strong, rising by 2% to record levels.

### Summary

While job growth in New York City's retail sector has slowed in recent years, the job count remains less than 1% below its record level, and two of the City's largest retail industries are still growing strongly in 2017.

Like retailers across the nation, those in New York City face a variety of well-known challenges. However, the sector remains a significant economic force, employing more than 345,000 workers and sporting a total payroll of more than \$14.2 billion for the 12-month period ending June 2017.

### New STEM List... from page 1

#### STEM Jobs in NYS

The updated STEM list includes about 240 job titles, which cover three broad categories: core (i.e., non-health care); health care; and blue-collar. Blue-collar titles had to have a positive "STEM score" to be added to the list. The STEM score reflects the level of STEM knowledge needed to work in the occupation. The occupational scores were compiled by Brookings, based on information obtained from O\*NET, which details the mix of knowledge, skills and abilities needed to perform each job title.

With this latest list update, there were 1.42 million STEM workers in New York State in

2017. Five STEM job titles together accounted for almost 30% of all STEM employment in the state. These included: registered nurses (180,730); general maintenance and repair workers (102,190); software developers, applications (49,360); licensed practical and licensed vocational nurses (46,990); and physicians and surgeons, all other (44,870).

Blue-collar STEM job titles are clustered in two broad occupational groups: installation, maintenance, and repair (SOC 49) and production (SOC 51). Altogether, there were more than 330,000 workers in blue-collar STEM occupations, and they accounted for about 25% of all STEM jobs in the state.

The five blue-collar titles with the most workers included: general maintenance and repair workers (102,190); automotive service technicians and mechanics (34,810); first-line supervisors of mechanics, installers, and repairers (25,590); HVAC mechanics and installers (15,920); and machinists (13,900).

#### STEM Wages in NYS

The median wage for all STEM occupations in NYS is \$72,390 per year, per an analysis of data from the Occupational Employment Statistics (OES) survey. The OES data also indicate that median STEM wages are 66% higher than the median wage for all workers in the state.

## Unemployment Rates in New York State

Data Not Seasonally Adjusted

	NOV '16	NOV '17		NOV '16	NOV '17		NOV '16	NOV '17
<b>New York State</b>	<b>4.5</b>	<b>4.5</b>	<b>Hudson Valley</b>	<b>4.1</b>	<b>4.5</b>	<b>Finger Lakes</b>	<b>4.5</b>	<b>5.1</b>
<b>Capital</b>	<b>3.9</b>	<b>4.4</b>	Dutchess	3.9	4.3	Genesee	4.5	5.1
Albany	3.8	4.2	Orange	4.1	4.6	Livingston	4.5	5.0
Columbia	3.5	3.6	Putnam	3.8	4.3	Monroe	4.5	5.1
Greene	4.8	5.4	Rockland	4.0	4.5	Ontario	4.1	4.6
Rensselaer	3.9	4.4	Sullivan	4.6	5.2	Orleans	5.1	5.9
Saratoga	3.5	4.0	Ulster	4.1	4.5	Seneca	4.4	4.4
Schenectady	4.0	4.6	Westchester	4.1	4.6	Wayne	4.7	4.9
Warren	5.4	5.8	<b>Mohawk Valley</b>	<b>4.7</b>	<b>5.3</b>	Wyoming	5.2	5.7
Washington	4.4	4.6	Fulton	5.2	6.0	Yates	4.3	4.5
<b>Central New York</b>	<b>4.7</b>	<b>5.1</b>	Herkimer	5.2	5.7	<b>Western New York</b>	<b>5.0</b>	<b>5.5</b>
Cayuga	4.6	4.9	Montgomery	5.0	5.5	Allegany	5.8	6.5
Cortland	5.4	5.9	Oneida	4.6	5.2	Cattaraugus	5.6	6.1
Madison	4.9	5.3	Otsego	4.4	5.0	Chautauqua	5.8	6.1
Onondaga	4.3	4.7	Schoharie	4.7	4.8	Erie	4.7	5.2
Oswego	6.0	6.4	<b>North Country</b>	<b>5.8</b>	<b>6.1</b>	Niagara	5.5	6.1
<b>Southern Tier</b>	<b>4.8</b>	<b>5.3</b>	Clinton	5.0	5.0	<b>Long Island</b>	<b>3.9</b>	<b>4.4</b>
Broome	5.0	5.5	Essex	5.3	5.9	Nassau	3.7	4.2
Chemung	5.2	5.5	Franklin	5.3	6.1	Suffolk	4.1	4.6
Chenango	4.9	5.4	Hamilton	8.9	9.9	<b>New York City</b>	<b>4.7</b>	<b>4.0</b>
Delaware	5.0	5.3	Jefferson	6.3	6.8	Bronx	6.5	5.6
Schuyler	5.7	6.2	Lewis	6.1	5.9	Kings	4.8	4.1
Steuben	5.3	5.9	St. Lawrence	6.0	6.4	New York	4.2	3.6
Tioga	4.6	5.0				Queens	4.1	3.5
Tompkins	3.8	4.3				Richmond	4.7	4.0

### New STEM List... from page 2

Not surprisingly, health care dominates the list of top-paying STEM job titles, taking eight of the top 10 spots. The STEM titles with the highest median salaries are all in the health care field: internists (\$188,480); dental specialists (\$176,210); family and general practitioners (\$169,640); psychiatrists (\$169,240); and physicians and surgeons, all other (\$167,570).

While the overall median wage for blue-collar STEM jobs is \$47,510 per year, there are 10 job titles that pay more than \$70,000 per year. The five highest-paying, blue-collar STEM job titles and their yearly median wage include: power distributors and dispatchers (\$98,040); electrical power line installers and repairers (\$80,030); control and valve installers and repairers (\$79,580); radio, cellular, and tower equipment installers and repairers (\$79,470); and power plant operators (\$79,100). Most of these jobs are specific to the utilities industry.

### Growing STEM Jobs in NYS

Employment in STEM occupations has grown much faster than employment in non-STEM occupations over the last decade. Going forward, this pattern is expected to continue. The STEM occupations expected to grow the most rapidly in New York in 2014-2024 are: statisticians (+54.9%); nurse practitioners

(+32.0%); biomedical engineers (+31.6%); operations research analysts (+30.2%); and environmental engineering technicians (+29.5%).

Drilling down to just blue-collar STEM titles, the fastest growing occupations are all expected to increase their job counts by more than 20% through 2024. The five with the strongest expected job growth in the state include: HVAC mechanics and installers (+26.5%); CNC machine tool operators (+26.3%); millwrights (+25.0%); CNC machine tool programmers (+25.0%); and medical appliance technicians (+22.7%).

### Where are STEM Jobs Found?

OES inverse staffing patterns data were used to analyze the industry sectors in the state with the most STEM employment. The three sectors with the most STEM jobs include: health care and social assistance (461,510); professional, scientific, and technical services (186,620); and educational services (133,360). Together, these three sectors account for 55% of STEM jobs in the state.

In 2017, the three industry sectors employing the most blue-collar STEM workers in New York were: manufacturing (67,480); real estate and rental and leasing (48,010); and retail trade (33,390). These three sectors accounted for 45% of blue-collar STEM employment.

### Summary

STEM education is at the forefront for economic development and innovation in today's ever-evolving economy. As the U.S. Bureau of Labor Statistics notes: "STEM workers use their knowledge of science, technology, engineering, or math to try to understand how the world works and to solve problems." Current STEM occupations and those that have yet to be established will be the driving force of the future. Blue-collar STEM job titles constitute an important component of this economic future.

To learn more about careers in STEM in New York State and its 10 labor market regions, see [www.labor.ny.gov/stats/stem\\_factsheets.shtml](http://www.labor.ny.gov/stats/stem_factsheets.shtml).

by Kayla Baker

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New York State Department of Labor  
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Albany, NY 12240

Director	Bohdan M. Wynnyk
Editor	Kevin Jack
Director of Communications	Cullen Burnell
Graphic Design	Laura A. Campbell
Editorial Advisor	Jean Genovese



## Regional Analysts' Corner

### CAPITAL

**James Ross — 518-242-8245**

Private sector jobs in the Capital Region grew over the year by 4,100, or 0.9 percent, to 443,900 in November 2017. The largest gains were in leisure and hospitality (+2,600), educational and health services (+1,400), financial activities (+600) and other services (+300). Job losses were centered in professional and business services (-900).

### CENTRAL NY

**Karen Knapik-Scalzo — 315-479-3391**

Private sector jobs in the Syracuse metro area rose over the year by 3,900, or 1.5 percent, to 266,700 in November 2017. Growth was centered in leisure and hospitality (+3,100), professional and business services (+2,300), educational and health services (+600) and manufacturing (+500). The largest losses occurred in trade, transportation and utilities (-1,300) and financial activities (-1,100).

### FINGER LAKES

**Tammy Marino — 585-258-8870**

Private sector jobs in the Rochester metro area decreased over the year by 2,800, or 0.6 percent, to 456,900 in November 2017. Gains were focused in educational and health services (+2,700), leisure and hospitality (+700) and natural resources, mining and construction (+500). Losses were greatest in trade, transportation and utilities (-3,600), financial activities (-1,600) and professional and business services (-1,500).

### HUDSON VALLEY

**John Nelson — 914-997-8798**

For the year ending November 2017, private sector jobs in the Hudson Valley grew by 13,100, or 1.6 percent, to 808,800. Growth was greatest in educational and health services (+6,900), trade, transportation and utilities (+4,100), professional and business services (+1,900) and financial activities (+1,300). Losses were centered in leisure and hospitality (-800), information (-600) and manufacturing (-500).

### LONG ISLAND

**Shital Patel — 516-934-8533**

Private sector jobs on Long Island fell over the year by 800, or 0.1 percent, to 1,152,400 in November 2017. Job gains were largest in educational and health services (+8,600) and leisure and hospitality (+2,600). Losses were centered in trade, transportation and utilities (-4,400), professional and business services (-4,000), manufacturing (-2,000) and financial activities (-1,200).

### MOHAWK VALLEY

**Brian Acton — 315-793-2282**

Over the past year, private sector jobs in the Mohawk Valley rose by 1,300, or 0.9 percent, to 149,400 in November 2017. Job gains were greatest in educational and health services (+1,200), leisure and hospitality (+400) and natural resources, mining and construction (+200). Losses were concentrated in professional and business services (-300).

### NEW YORK CITY

**James Brown — 718-613-3971**

Private sector jobs in New York City rose over the year by 68,100, or 1.8 percent, to 3,926,500 in November 2017. Gains were greatest in educational and health services (+24,400), professional and business services (+15,000), leisure and hospitality (+12,300) and financial activities (+11,900). Losses were focused in information (-5,900) and trade, transportation and utilities (-5,900).

### SOUTHERN TIER

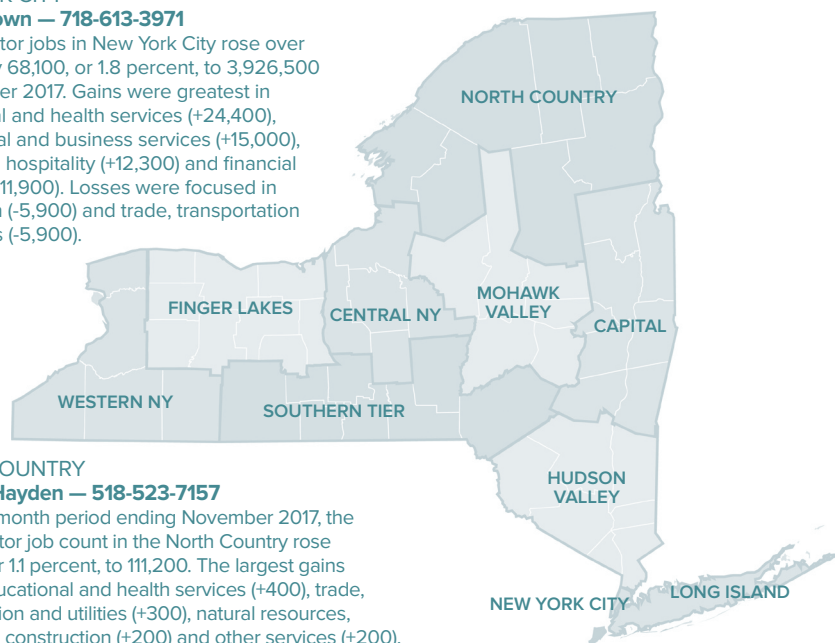
**Christian Harris — 607-741-4485**

For the year ending November 2017, private sector jobs in the Southern Tier rose by 200, or 0.1 percent, to 229,800. The largest gains were in educational and health services (+1,500), leisure and hospitality (+600) and other services (+300). Losses were centered in manufacturing (-800), trade, transportation and utilities (-700), financial activities (-300) and professional and business services (-200).

### WESTERN NY

**John Slenker — 716-851-2742**

Private sector jobs in the Buffalo-Niagara Falls metro area fell by 200 to 478,000 for the year ending November 2017. Job gains were largest in educational and health services (+3,100), other services (+1,300) and professional and business services (+1,000). Losses were centered in leisure and hospitality (-2,300), financial activities (-2,200) and trade, transportation and utilities (-800).



### NORTH COUNTRY

**Anthony Hayden — 518-523-7157**

For the 12-month period ending November 2017, the private sector job count in the North Country rose by 1,200, or 1.1 percent, to 111,200. The largest gains were in educational and health services (+400), trade, transportation and utilities (+300), natural resources, mining and construction (+200) and other services (+200).