

# Employment in New York State



Research and  
Statistics

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## At a Glance

New York State had 9,519,600 total nonfarm jobs in September 2017, including 8,061,600 private sector jobs, after seasonal adjustment. The state's seasonally adjusted private sector job count decreased by 0.5% between August and September 2017, while the nation's job count decreased by less than 0.1% over this period. From September 2016 to September 2017, the number of private sector jobs increased by 1.1% in the state and by 1.4% in the nation (not seasonally adjusted).

In September 2017, New York State's seasonally adjusted unemployment rate increased from 4.8% to 4.9%. The comparable rate for the nation in September 2017 was 4.2%.

New York State's Index of Coincident Economic Indicators decreased at an annual rate of 1.6% in September 2017.

## Change in Nonfarm Jobs

September 2016 - September 2017  
(Data not seasonally adjusted,  
net change in thousands)

	Net	%
Total Nonfarm Jobs	89.1	0.9%
Private Sector	84.4	1.1%
Goods-producing	-13.2	-1.6%
Nat. res. & mining	0.1	1.8%
Construction	2.4	0.6%
Manufacturing	-15.7	-3.5%
Durable gds.	-13.0	-5.0%
Nondurable gds.	-2.7	-1.4%
Service-providing	102.3	1.2%
Trade, trans. & util.	-5.9	-0.4%
Wholesale trade	0.0	0.0%
Retail trade	-9.8	-1.0%
Trans., wrhs. & util.	3.9	1.3%
Information	-6.9	-2.5%
Financial activities	-0.6	-0.1%
Prof. & bus. svcs.	34.0	2.6%
Educ. & health svcs.	54.4	2.8%
Leisure & hospitality	16.8	1.8%
Other services	5.8	1.4%
Government	4.7	0.3%

## A Look into the Future of Automobiles...

### Driverless New York

"We will see more change in the auto industry in the next five to 10 years than we have in the last 50."

— Mary T. Barra, Chair and CEO,  
General Motors Company

"Ultimately, self-driving cars won't just transform our streets—they'll change our lives."

— Luc Vincent, Vice President  
of Engineering, Lyft

As the above quotes make clear, the U.S. auto industry is poised to undergo dramatic change over the next decade. In turn, these technological changes have the potential to reshape the world in which we live and work, and they will have a marked impact on our everyday lives. Here, we take a high-level look at the "next big thing" in the automotive industry: driverless cars.

### Another Disruptive Technology?

Also known as autonomous vehicles (AVs), driverless cars are the latest in a long line of innovative and technological breakthroughs in the auto industry. In 1908, Ford's Model T became the first mass-produced automobile. It had three foot pedals, a lever used to operate the transmission, and it could reach a top speed of 40-45 mph.

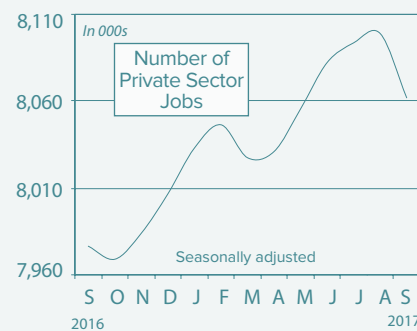
Half a century later, cruise control was introduced with the 1958 Chrysler Imperial. This innovation paved the way for other modern amenities such as back-up cameras, self-parking features and adaptive cruise control (automatic breaking or dynamic speed controls).

More recently, Alphabet Inc., the corporate parent of Google, began their own self-

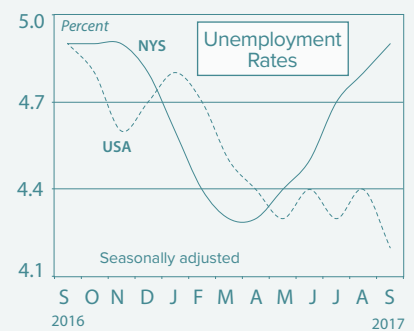
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## In September...

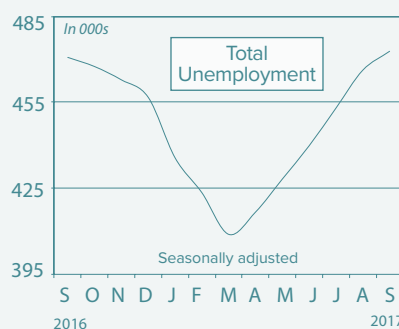
### ...NYS private sector jobs decreased



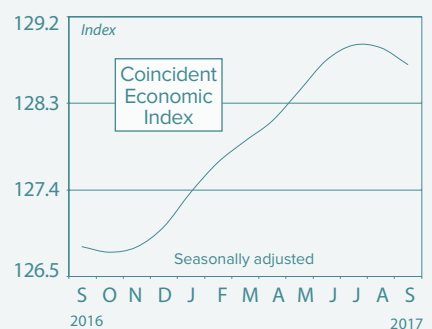
### ...NYS unemployment rate increased



### ...NYS unemployment increased



### ...NYS economic index decreased



# Focus on the Capital Region

## Capital Region Economy Is at an All-time High

by James Ross, Labor Market Analyst, Capital Region

### Introduction

The Capital Region's private sector economy has never been larger. Whether measured in terms of jobs or by real gross domestic product (GDP), the region's economy is currently at a record high. The private sector job count, which peaked at 389,420 in 2008 and then fell by a total of 14,550 in 2009 and 2010, recovered all losses by 2013. It continued to grow to 408,930 in 2016, based on data from the Quarterly Census of Employment and Wages. Real GDP in the region peaked earlier, in 2006, but fully recovered by 2010, and has continued to expand through 2016.

### A Look at Industries

Local job gains in 2008-2016 were largely led by two industry sectors: health care and social assistance (+6,930), and accommodation and food services (+5,690). The jump in health care and social assistance was most significant in individual and family services, outpatient care centers, general medical and surgical hospitals, offices of other health care practitioners and offices of physicians. Growth in accommodation and food services was concentrated in restaurants and other eating places.

Educational services (+2,570), manufacturing (+2,410), arts, entertainment and recreation (+1,430), and transportation and warehousing (+990) round out the region's list of significant job generators. Manufacturing is particularly important as this sector is the largest source of private sector exports in the Capital Region and a vital source of wealth generation. Within the sector, semiconductors and other electronic

components, and pharmaceuticals have both experienced explosive growth. Much of the expansion in these industries is due to hiring at GlobalFoundries and Regeneron.

### A Look at Occupations

Which occupational groups in the Capital Region enjoyed the most net job growth between 2008 and 2016? Data from Economic Modeling Specialists Intl. (EMSI) show that employment growth was strongest in these two groups: food preparation and service related, and health care practitioners and technical. This result is not a total surprise since both the health care and social assistance, and accommodation and food services industry sectors experienced the most local net job growth between 2008 and 2016.

Despite overall job growth in the Capital Region's manufacturing sector, the number of local production workers in the sector actually slipped between 2008 and 2016. Although production jobs represent the largest occupational group working in the region's factories (44%), it was one of only two job groups to see a net employment decline within the sector in 2008-2016. The other was transportation and material moving. Engineering (including technicians) and computer-related occupations were among the groups that added the most jobs. This result is indicative of a more automated and productive factory sector.

### Aging Workforce

Like many areas in the nation, the Capital Region's workforce is getting older and thus has more workers likely to retire in the coming years. Almost one-quarter (23%) of



the region's private sector workforce is at least age 55. Some industry sectors with above-average shares of older workers include: wholesale trade (27%); health care and social assistance (26%); professional, scientific and technical services (25%); transportation and warehousing (25%); and manufacturing (25%).

EMSI data show the following seven occupational groups have the highest concentrations of workers age 55+: legal (31%); management (29%); community and social services (27%); building and grounds cleaning and maintenance (27%); office and administrative support (27%); education, training and library (27%); and transportation and material moving (26%).

### Summing Up

The Capital Region's labor market suffered through the nation's worst economic contraction in 75 years, only to bounce back to record highs. Looking ahead, the area's burgeoning manufacturing-centered technology sector, working in concert with the three traditional pillars of local employment strength -- education, health care and state government -- should provide the Capital Region's economy with a strong foundation on which to build.

### Driverless Cars... from page 1

driving car project (Waymo) in 2009. They logged two million self-driven miles by the end of 2016. The McKinsey Global Institute (MGI) named AVs as one of the top six emerging technologies that could drive truly massive economic transformations and disruptions in the coming years. The other five are mobile internet, automation of knowledge work, the internet of things, cloud computing and advanced robotics.

### Introduction of the Driverless Car

Google may have been one of the first companies to develop an AV, but carmakers such as Audi, Ford, Volvo, General Motors and Tesla, as well as rideshare firms Uber and Lyft, are all racing to produce their own autonomous

car. Most major carmakers expect AVs to be available around 2030. Some are backing that belief with significant investments. For example, General Motors purchased a self-driving start-up, Cruise Automation, for \$581 million in 2016. Similarly, Ford Motor Company is investing \$1 billion over the next five years in Pittsburgh-based Argo AI, which develops artificial intelligence software used in AVs.

In New York, new legislation allows for a yearlong pilot program to test AVs on public roads. All testing and demonstrations of AVs in the state must be approved by the Department of Motor Vehicles (DMV). Applicants must have a licensed driver in the AV, be accompanied by the State Police and carry at least \$5 million

in insurance. Once a test or demonstration is complete, a detailed report of the findings must be filed with the DMV.

Today, many vehicles on the road possess some degree of autonomy, and automakers are in a race to produce fully driverless AVs. Some policy issues and technical questions have arisen along the way. To address them, SAE International developed a six-level system -- since adopted by the U.S. government -- that categorizes a vehicle's degree of autonomy. See the table on page 3 for further details.

### Economic Benefits and Costs of AVs

There will be both economic benefits and costs to society once AVs are introduced on the

*Continued on page 3*

## Unemployment Rates in New York State

Data Not Seasonally Adjusted

	SEP '16	SEP '17		SEP '16	SEP '17		SEP '16	SEP '17
<b>New York State</b>	<b>4.9</b>	<b>4.7</b>	<b>Hudson Valley</b>	<b>4.5</b>	<b>4.5</b>	<b>Finger Lakes</b>	<b>4.7</b>	<b>4.7</b>
<b>Capital</b>	<b>4.2</b>	<b>4.1</b>	Dutchess	4.3	4.4	Genesee	4.2	4.1
Albany	4.2	4.2	Orange	4.5	4.5	Livingston	4.6	4.5
Columbia	3.7	3.6	Putnam	4.2	4.3	Monroe	4.9	4.9
Greene	4.8	4.6	Rockland	4.4	4.4	Ontario	4.1	4.1
Rensselaer	4.3	4.2	Sullivan	4.7	4.5	Orleans	5.2	5.1
Saratoga	3.9	3.8	Ulster	4.5	4.3	Seneca	4.5	4.0
Schenectady	4.5	4.4	Westchester	4.5	4.5	Wayne	4.7	4.5
Warren	4.6	4.2	<b>Mohawk Valley</b>	<b>4.9</b>	<b>4.8</b>	Wyoming	4.6	4.4
Washington	4.3	4.3	Fulton	5.5	5.4	Yates	4.2	4.0
<b>Central New York</b>	<b>4.9</b>	<b>4.8</b>	Herkimer	5.0	4.8	<b>Western New York</b>	<b>5.2</b>	<b>5.0</b>
Cayuga	4.7	4.5	Montgomery	5.2	5.3	Allegany	5.6	5.4
Cortland	4.9	4.8	Oneida	4.8	4.8	Cattaraugus	5.6	5.3
Madison	4.9	4.9	Otsego	4.6	4.4	Chautauqua	5.7	5.3
Onondaga	4.6	4.6	Schoharie	5.0	4.7	Erie	5.0	4.8
Oswego	6.2	5.9	<b>North Country</b>	<b>5.4</b>	<b>5.2</b>	Niagara	5.5	5.3
<b>Southern Tier</b>	<b>5.1</b>	<b>4.9</b>	Clinton	5.1	4.7	<b>Long Island</b>	<b>4.3</b>	<b>4.2</b>
Broome	5.3	5.1	Essex	4.6	4.3	Nassau	4.1	4.1
Chemung	5.7	5.2	Franklin	5.2	5.4	Suffolk	4.4	4.3
Chenango	4.8	4.7	Hamilton	4.0	4.3	<b>New York City</b>	<b>5.4</b>	<b>5.0</b>
Delaware	5.2	5.0	Jefferson	5.6	5.3	Bronx	7.2	6.7
Schuyler	5.1	4.4	Lewis	5.6	5.3	Kings	5.5	5.1
Steuben	5.5	5.3	St. Lawrence	5.9	5.8	New York	4.7	4.5
Tioga	5.0	4.6				Queens	4.7	4.4
Tompkins	4.3	4.3				Richmond	5.4	5.0

### Driverless Cars... from page 2

Level	Degree of Self-Driving Capability
0	100% Manual Control
1	Manual Control with Single-Function Assist
2	Manual Control with Dual-Function Assist
3	Limited Self-Driving with Human Backup
4	Autonomous for Some Modes
5	Autonomous for All Modes

Source: SAE International

nation's roadways. One of the biggest benefits is safer roads due to dramatically reduced traffic congestion. This could result in 30,000-150,000 fewer automobile-related deaths, per MGI estimates. Other anticipated benefits to society include increased productivity, a reduced ecological footprint and the creation of new jobs.

A study from Intel and Strategy Analytics found that AVs would be the driving force behind a \$7 trillion increase in economic activity and efficiencies by 2050. Of that, \$4 trillion would come from driverless taxis, almost \$3 trillion from driverless delivery and advancements in the transportation and warehousing sector, and \$203 billion from other sectors such as health care and tourism.

Despite these large potential benefits, there are lingering questions about the overall impact of AVs on jobs. There are nearly four

million people working as motor vehicle operators (e.g., truck drivers, cab drivers) in the U.S., including 215,000 in New York. Add in personal care aides, police officers, real estate agents, and other workers whose ability to drive is an important component of their jobs, and the number of impacted U.S. workers jumps to over 15 million. This figure represents about one out of every nine jobs in the United States.

Job ad data from the Help Wanted Online program suggest that the demand for truck drivers, including heavy and tractor-trailer truck drivers, is greater than for many other occupations in New York. Since a truck driver's primary responsibility is the safe operation of a motor vehicle, it is no surprise that many in the industry view AVs as a threat to their job security.

However, autonomous trucks may still require a monitor in the cab to take over when navigating through city centers. These monitors will ensure safe delivery of goods and be freed up to work on other tasks during their travels. This may make the job less fatiguing. As a result, drivers could see improved working conditions and, in turn, employers may experience a reduction in worker turnover.

### Summing Up

There are a wide range of opinions as to when fully autonomous vehicles will be adopted on a large scale, and what the net economic benefits and costs will be. Automakers are working diligently to be on the cutting edge of self-driving technology and to incorporate it into their new vehicles.

Currently, many top automakers are partnering with technology companies to achieve different levels of automation. Most companies are predicting their driverless vehicles will be on the roadways within the next 10-15 years. With more than 260 million cars and light trucks registered in the U.S. today, AVs are sure to have a significant economic and societal impact in the years to come.

by Kevin Alexander and Kayla Baker

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## Regional Analysts' Corner

### CAPITAL

**James Ross — 518-242-8245**

Private sector jobs in the Capital Region rose over the year by 1,400, or 0.3 percent, to 439,400 in September 2017. The largest job gains were in leisure and hospitality (+2,100), educational and health services (+800) and natural resources, mining and construction (+400). Employment losses were centered in professional and business services (-1,800) and manufacturing (-900).

### CENTRAL NY

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

Private sector jobs in the Syracuse metro area rose over the year by 1,100, or 0.4 percent, to 262,400 in September 2017. Growth was centered in professional and business services (+2,100), leisure and hospitality (+700) and manufacturing (+400). The largest job losses occurred in financial activities (-1,100) and trade, transportation and utilities (-700).

### FINGER LAKES

**Tammy Marino — 585-258-8870**

Private sector jobs in the Rochester metro area decreased over the year by 3,100, or 0.7 percent, to 452,300 in September 2017. Job gains were concentrated in natural resources, mining and construction (+700). Employment losses were greatest in trade, transportation and utilities (-1,900), financial activities (-700), manufacturing (-700) and professional and business services (-700).

### HUDSON VALLEY

**John Nelson — 914-997-8798**

Private sector jobs in the Hudson Valley rose over the year by 7,400, or 0.9 percent, to 796,600 in September 2017. Gains were greatest in educational and health services (+5,600), professional and business services (+2,800), trade, transportation and utilities (+2,200) and other services (+2,000). Losses were centered in leisure and hospitality (-2,600), natural resources, mining and construction (-1,100) and manufacturing (-900).

### LONG ISLAND

**Shital Patel — 516-934-8533**

Private sector jobs on Long Island increased over the year by 8,500, or 0.7 percent, to 1,151,000 in September 2017. The largest gains were in educational and health services (+9,500), leisure and hospitality (+2,000) and professional and business services (+1,200). Losses were centered in natural resources, mining and construction (-2,300) and manufacturing (-1,800).

### MOHAWK VALLEY

**Brion Acton — 315-793-2282**

Over the past year, the private sector job count in the Mohawk Valley rose by 1,200, or 0.8 percent, to 149,500 in September 2017. Gains were centered in educational and health services (+500), leisure and hospitality (+500) and natural resources, mining and construction (+400).

### NEW YORK CITY

**James Brown — 718-613-3971**

Private sector jobs in New York City rose over the year by 48,100, or 1.3 percent, to 3,844,200 in September 2017. Gains were greatest in educational and health services (+22,500), professional and business services (+18,100), leisure and hospitality (+7,300), natural resources, mining and construction (+7,000) and financial activities (+6,100). Losses occurred in trade, transportation and utilities (-8,700) and information (-6,500).

### SOUTHERN TIER

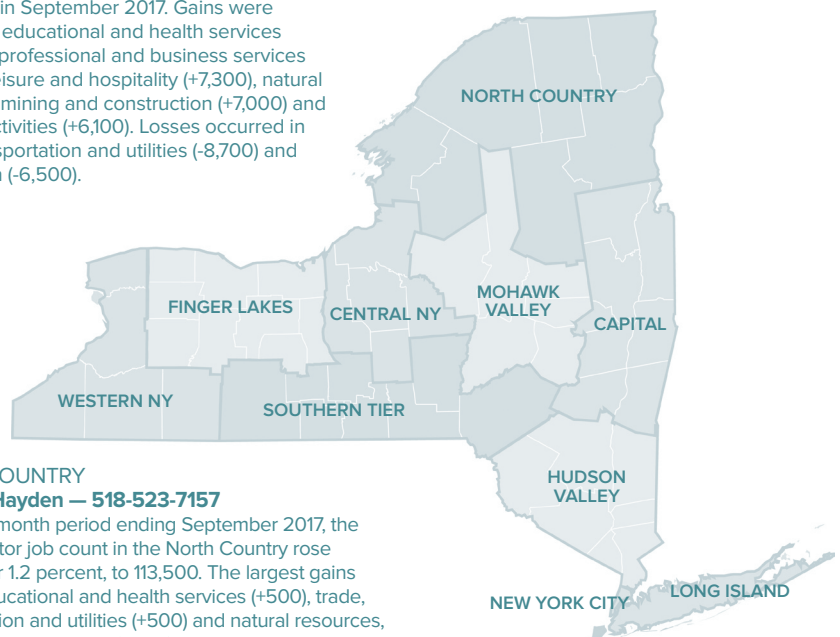
**Christian Harris — 607-741-4485**

Over the year ending September 2017, private sector jobs in the Southern Tier grew by 2,000, or 0.9 percent, to 229,400. The largest gains were in educational and health services (+2,200), leisure and hospitality (+900) and other services (+200). Losses were centered in manufacturing (-700) and financial activities (-300).

### WESTERN NY

**John Slenker — 716-851-2742**

Private sector jobs in the Buffalo-Niagara Falls metro area declined over the year by 3,900, or 0.8 percent, to 471,300 in September 2017. The largest gains were in educational and health services (+1,700) and other services (+200). Losses were centered in leisure and hospitality (-2,600), financial activities (-1,800), natural resources, mining and construction (-500) and professional and business services (-500).



### NORTH COUNTRY

**Anthony Hayden — 518-523-7157**

For the 12-month period ending September 2017, the private sector job count in the North Country rose by 1,300, or 1.2 percent, to 113,500. The largest gains were in educational and health services (+500), trade, transportation and utilities (+500) and natural resources, mining and construction (+200).