Employment in New York State

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RESEARCH AND STATISTICS

At a Glance

New York State had 8,588,900 total nonfarm jobs in August 2020, including 7,198,600 private sector jobs, after seasonal adjustment. The state's seasonally adjusted private sector job count increased by 1.4% in July-August 2020, while the nation's job count increased by 0.9% over this period. From August 2019 to August 2020, the number of private sector jobs decreased by 13.2% in the state and by 7.5% in the nation (not seasonally adjusted).

In August 2020, New York State's seasonally adjusted unemployment rate decreased from 15.9% to 12.5%. The comparable rate for the nation in August 2020 was 8.4%.

New York State's seasonally adjusted labor force participation rate decreased from 61.4% in July to 60.8% in August 2020.

Change in Nonfarm Jobs
August 2019 - August 2020
(Data not seasonally adjusted, net change in thousands)

	Net	%
Total Nonfarm Jobs	-1,196.5	-12.2
Private Sector	-1,096.9	-13.2
Goods-producing	-83.2	-9.6
Nat. res. & mining	-0.8	-14.3
Construction	-41.7	-9.8
Manufacturing	-40.7	-9.2
Durable gds.	-21.1	-8.3
Nondurable gds.	-19.6	-10.6
Service-providing	-1,113.3	-12.5
Trade, trans. & util.	-187.8	-12.2
Wholesale trade	-36.6	-11.2
Retail trade	-99.1	-10.9
Trans., wrhs. & util.	-52.1	-17.7
Information	-16.2	-5.7
Financial activities	-45.5	-6.1
Prof. & bus. svcs.	-171.1	-12.3
Educ. & health svcs.	-130.5	-6.3
Leisure & hospitality	-403.2	-39.9
Other services	-59.4	-14.3
Government	-99.6	-6.9

Companies Use More Automation During COVID-19 Crisis

"One of the hallmarks of the COVID crisis and its aftermath is going to be an acceleration of the deployment of all kinds of automation."

Mark Muro, Senior Fellow, Brookings Institution

Fears about technology taking jobs away from human workers are not new. In 1589, Queen Elizabeth I of England refused to grant the inventor of a mechanical knitting machine a patent for fear of putting manual knitters out of work. In the early 1800s, British textile workers called Luddites destroyed new textile machines that would replace their jobs.
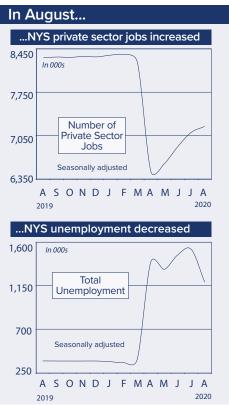
More recently, concerns have focused on the spread of automation, such as robots and artificial intelligence (AI), which can replace human workers. The COVID-19 pandemic has heightened these concerns as companies in many industry sectors rely more on automation to replace workers sickened by the coronavirus. They want to avoid workplace infections and cut costs to remain competitive during the current economic slowdown.
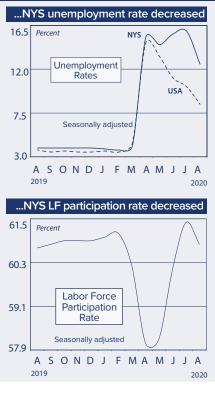
Daniel Susskind of the University of Oxford said, "This pandemic has created a very strong incentive to automate the work of human beings." His belief is confirmed by the results of a June 2020 survey conducted by consulting firm PwC, which found half of chief financial officers were planning to speed automation. Here, we examine the growth of automation during the pandemic.

Substitutes or Complements?

Automation takes on many familiar, everyday forms. We use automatic teller machines, self-service gasoline pumps, digital self-serve ordering stations in

In August...

...NYS private sector jobs increased

In 000s

Number of Private Sector Jobs

Seasonally adjusted

A S O N D J F M A M J J A
2019 — 2020

...NYS unemployment rate decreased

Percent

NYS

Unemployment Rates

USA

Seasonally adjusted

A S O N D J F M A M J J A
2019 — 2020

...NYS unemployment decreased

In 000s

Total Unemployment

Seasonally adjusted

A S O N D J F M A M J J A
2019 — 2020

...NYS LF participation rate decreased

Percent

Labor Force Participation Rate

Seasonally adjusted

A S O N D J F M A M J J A
2019 — 2020

Focus on the Capital Region

The Capital Region's Dynamic Tech Scene
by Kevin Alexander, Labor Market Analyst, Capital Region

Technology has reshaped labor markets across the nation, as innovation transformed existing industries and occupations and helped to create new ones. The Capital Region has been a primary beneficiary of this transformation. The region is ranked among the best areas in the nation in which to find a job in a technology field. In 2016, *U.S. News and World Report* ranked the Albany-Schenectady-Troy (A-S-T) metro area as the third best in the U.S., trailing only behind the San Jose and San Francisco areas in California. And a 2019 report from the Brookings Institution ranked the A-S-T area third on its list of potential high-tech, innovation growth centers. Here, we analyze some industries in the Capital Region that play a significant role in the region's tech scene.

High-tech Manufacturing
Technology has underpinned the transformation of the Capital Region's manufacturing sector. For example, the emergence of biotechnology helped chemical manufacturing (NAICS 325) to become the region's largest manufacturing industry, employing 5,900 workers in 2019. This industry continues to grow. Tarrytown-based Regeneron Pharmaceuticals is expanding its East Greenbush (Rensselaer County) production facility. They anticipate creating more than 1,000 new jobs over the next few years.

The region's second largest manufacturing industry is computer and electronic products (NAICS 334), employing 4,400. The Albany Nanotech Complex at SUNY Polytechnic Institute and the GlobalFoundries Fab 8 plant in Malta (Saratoga County) have been driving forces behind the industry's

recent growth. Last winter, semiconductor equipment manufacturer Applied Materials opened the Materials Engineering Technology Accelerator (META Center) at SUNY Poly. This first-of-its-kind facility is focused on materials engineering R&D in several areas, including virtual intelligence, augmented and virtual reality, semiconductors and advanced optics.

Video Game Development
The Capital Region has been involved in the digital gaming industry for decades. One of the industry's top-performing companies – Activision Blizzard – operates a studio in Menands (Albany County). Activision's Vicarious Visions studio is well known in the gaming community, having worked on franchises such as Crash Bandicoot and Guitar Hero.

The region is home to many other gaming studios, creating an industry cluster that has attracted numerous companies, including Warner Brothers, Wolfjaw and Velan Studios. Velan Studios, along with others, is situated in the Troy Innovation District (Rensselaer County). For their first game, they partnered with Nintendo to develop Mario Kart Live: Home Circuit, which was released on October 16.

The Center for Economic Growth in Albany estimates that the Capital Region's digital gaming sector employs nearly 500 workers at 23 different studios. Employers in this sector represent many different industries, with the most common being professional and technical services (NAICS 541). This industry is one of the region's highest paying, with an average annual wage of $87,400.

"The Capital Region is ranked among the best in the nation to find a job in a technology field."

High-Paying, In-Demand Occupations
As the popularity of video games soars, Capital Region employers are looking for skilled workers. Software developers, and software quality assurance analysts and testers, are among the most sought-after workers. These occupations employ more than 3,500 with an annual median salary of $97,800. Experienced workers can earn up to $119,200 per year, while entry-level employees can make $62,900.

High-tech manufacturers also offer high-paying jobs, mostly in engineering. For example, there are 1,600 industrial engineers in the Capital Region with an annual median salary of $99,100. Industrial engineers beginning their career in the region can make $72,000 per year and can earn up to $119,200 as they become more experienced. Another common occupation, electrical engineers, has an entry-level annual salary of $73,400, while pay for an experienced worker tops $130,200.

Summing Up
Technology has clearly boosted the Capital Region's economy in recent years. Not only does it enhance the long-term prospects for a variety of manufacturing and service industries, it also offers high-paying jobs to workers who possess the right skills.

More Automation... *from page 1*

fast-food restaurants and interactive voice response telephone systems (aka phone trees). Amazon recently opened a new supermarket prototype in Seattle that uses cameras and sensors to detect which products customers select. In each case, technology automated basic tasks and replaced workers who performed them.

Automation tends to disrupt labor markets and replace workers in the short run, as technology substitutes for routine work. However, MIT economics professor David Autor argues that, over longer periods of time, automation and human labor often complement one another. This can lead to a net gain in jobs and raise workers' wages.

Similarly, a recent report from the Paris-based Organisation for Economic Co-operation and Development noted that "employment in total may continue to rise" even if automation disrupts specific industries.

The U.S. auto industry is one example that shows how human labor and automation may intertwine. Most industrial robots (54%) in this nation assemble automobiles. While some workers in the auto industry (e.g., painters) may lose their jobs as more robots are deployed, robots might help raise the overall productivity and efficiency of the automotive assembly line. This, in turn, could lead to an increase in the demand for other types of jobs (like technicians) that support the use of robots.

Now, More Than Just Manufacturing
Historically, the factory sector has been most able to take advantage of labor-saving technology and pass on the resulting cost savings to consumers through lower prices. This trend has continued during the pandemic, with increased use of slaughterhouse robots to replace sick workers in meatpacking plants.

Recently, some service sector industries, such as call centers, have turned to automation to replace workers sickened by the coronavirus. For example, the call center for David's Bridal, the wedding gown retail chain, introduced an AI chatbot named Zoey that simulates human conversation. The Zoey chatbot shows

Regional Analysts' Corner

CAPITAL
Kevin Alexander — 518-242-8245
Between August 2019 and August 2020, the private sector job count in the Capital Region fell by 53,100, or 11.8%, to 395,300. Employment losses were greatest in leisure and hospitality (-23,200), trade, transportation and utilities (-8,500), educational and health services (-6,200), professional and business services (-6,200), manufacturing (-3,600) and other services (-3,100).

CENTRAL NY
Karen Knapik-Scalzo — 315-479-3391
The private sector job count in the Syracuse metro area dropped by 36,100, or 13.6%, to 229,700 in the 12 months ending August 2020. The greatest job losses occurred in trade, transportation and utilities (-10,200), educational and health services (-6,900), leisure and hospitality (-6,600), professional and business services (-6,200), manufacturing (-2,400) and natural resources, mining and construction (-1,600).

FINGER LAKES
Tammy Marino — 585-258-8870
The Rochester metro area's private sector job count fell by 53,600, or 11.6%, to 407,400 in the 12-month period ending August 2020. Employment losses were largest in leisure and hospitality (-18,900), trade, transportation and utilities (-15,400), manufacturing (-7,000), educational and health services (-4,500), financial activities (-2,600) and professional and business services (-2,600).

HUDSON VALLEY
John Nelson — 914-997-8798
For the 12-month period ending August 2020, the private sector job count in the Hudson Valley decreased by 98,300, or 12.0%, to 720,700. Job losses were greatest in leisure and hospitality (-41,300), trade, transportation and utilities (-14,900), professional and business services (-13,000), other services (-9,500), educational and health services (-7,100) and natural resources, mining and construction (-5,600).

LONG ISLAND
Shital Patel — 516-934-8533
The private sector job count on Long Island fell by 141,000, or 12.1%, to 1,024,500 in the 12-month period ending August 2020. Employment losses were greatest in leisure and hospitality (-46,900), educational and health services (-28,900), trade, transportation and utilities (-27,000), professional and business services (-16,600), manufacturing (-7,300) and natural resources, mining and construction (-6,800).

MOHAWK VALLEY
Brion Acton — 315-793-2282
For the year ending August 2020, the Mohawk Valley's private sector job count fell by 18,000, or 12.0%, to 131,400. Employment losses were greatest in leisure and hospitality (-6,200), educational and health services (-4,500), trade, transportation and utilities (-2,600), manufacturing (-1,600), professional and business services (-1,400) and other services (-1,000).

NEW YORK CITY
Elena Volovelsky — 718-613-3971
The number of private sector jobs in New York City fell over the year by 602,700, or 14.9%, to 3,437,600 in August 2020. Job losses were greatest in leisure and hospitality (-231,100), professional and business services (-106,700), trade, transportation and utilities (-91,500), educational and health services (-61,200), other services (-34,900), financial activities (-31,900) and natural resources, mining and construction (-21,700).

SOUTHERN TIER
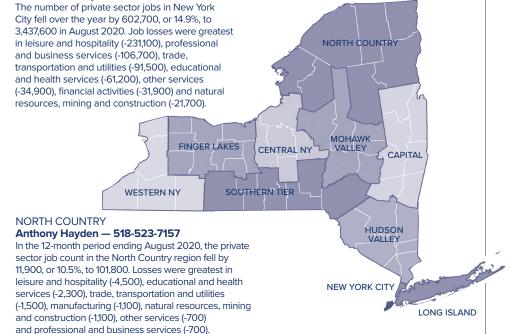**Christian Harris — 607-741-4480**
The number of private sector jobs in the Southern Tier declined over the year by 16,500, or 7.3%, to 208,800 in August 2020. Losses were largest in leisure and hospitality (-4,100), trade, transportation and utilities (-2,700), educational and health services (-2,400), professional and business services (-2,300), other services (-1,700), natural resources, mining and construction (-1,600) and manufacturing (-1,100).

WESTERN NY
Timothy Glass — 716-851-2742
From August 2019 to August 2020, the private sector job count in the Buffalo-Niagara Falls metro area fell by 47,400, or 9.9%, to 429,600. Employment growth was focused in manufacturing (+1,100). Losses were greatest in leisure and hospitality (-16,000), trade, transportation and utilities (-11,800), professional and business services (-7,600), educational and health services (-6,900) and other services (-3,300).

NORTH COUNTRY
Anthony Hayden — 518-523-7157
In the 12-month period ending August 2020, the private sector job count in the North Country region fell by 11,900, or 10.5%, to 101,800. Losses were greatest in leisure and hospitality (-4,500), educational and health services (-2,300), trade, transportation and utilities (-1,500), manufacturing (-1,100), natural resources, mining and construction (-1,100), other services (-700) and professional and business services (-700).