STATE OF THE WORKFORCE

2019 LABOR MARKET SNAPSHOT OF NEW YORK

NYATEP

Voice - Knowledge - Progress
For Workforce Development

Questions Raised by this Brief:

- How can the City and State proactively connect their economic development priorities and investments to train the right workforce for good paying jobs?

- What evidence-based practices should be scaled to increase the ability of skilled workers, primarily from non-traditional educational pathways or underutilized labor pools, to meet the growing employer demand?

- What City and State policies can be enacted to expand and align quality job training opportunities for New Yorkers?

- How can the City and State proactively align economic and workforce agendas to recruit good jobs for New Yorkers?

- How is the City and State tracking and measuring resources and programs related to workforce development to understand what is working and where to make improvements?

NYATEP

*Voice - Knowledge - Progress
For Workforce Development*

The New York Association of Training & Employment Professionals (NYATEP) is a 501(c)(3) membership organization serving the workforce development community throughout New York State. We provide the leadership, vision, and advocacy for a thriving workforce in New York State. Our focus is ensuring that every worker and employer in New York has access to the skills they need to work in and support a robust statewide economy. NYATEP's membership serves over a million New Yorkers each year through education, job training and employment services.

A Special Thank You to Our Data Partners:

WES WORLD EDUCATION SERVICES

THE FINANCIAL CLINIC

Early Care & Learning Council United to Promote Quality

NEW YORK STATE OF OPPORTUNITY. | NYSERDA

WE ARE YOUR DOL NEW YORK STATE OF OPPORTUNITY | Department of Labor

NYS ED.gov | New York State EDUCATION DEPARTMENT Knowledge › Skill › Opportunity

Overall, data collection and consistency continue to be difficult. For this year's report, NYATEP transitioned to in-house data analysis through EMSI labor market software. For other topic areas, we continue to reach out to several data partners, who are experts in their fields, to understand what data currently exists. While we are thrilled to share the data within this report, several topics we intended to include had insufficient information available publicly. For example, public transportation affects many New Yorkers, yet there is no data available on ridership demographics or free or reduced fares. We hope by continuing to collect and publish publicly available data we can encourage our partners to work harder to share real data.

EXECUTIVE SUMMARY

The State of the Workforce Brief is an annual snapshot, of publicly available data, to inform communities about the dynamics of their regional economy and the workforce impact. For the third year, the New York Association of Training & Employment Professionals used readily available data to understand who is working and who isn't, what sectors and occupations are growing across the State, and the number of potential workers produced by New York's education and training systems.

Key Findings for New York State

Changing economic landscape in New York and United States

- Statewide the official unemployment rate is 4.2%, but if discouraged, marginally attached, and workers who are part-time for economic reasons are included, the unemployment rate is 7.6%.
- The economy is showing indications of a slow down. Workforce professionals should stay alert to indicators like the quits rate, shift to part-time employment, auto sales, and multiple jobs per person.
- The youth unemployment rate remains high at 20.7% for ages 16 to 19 and 11.6% for ages 20 to 24. Youth participation in the gig economy is high, with 38% of those ages 18 to 24 working in the gig economy nationwide.
- Low-wage jobs continue to dominate New York's labor market; of the top 10 occupations that make up over 1.7 million jobs, nine out of ten pay less than $32,000 per year.
- Clean and green jobs continue to grow across New York State, while 80% of employers in the past year had difficulty hiring, with incoming talent lacking experience, training, or technical skills, as well as industry-specific knowledge.

New Yorkers lack skills in demand

- Approximately 42% percent (5.65 million) of New Yorkers have a high school diploma/equivalency or less. This is up 2% from last year. Of the individuals who completed less than a high school diploma or high school equivalency, half never even entered the 9th grade. In New York, 1,014,298 people have less than a 9th grade education.
- Of the 24% of New Yorkers who have Some College or an Associate's Degree, two-thirds, or 2,168,947 New Yorkers, have some college credits, but no degree.

Childcare is a barrier to median and low-wage families

- The cost of childcare has surpassed housing as the most expensive category of basic living, creating a significant barrier for families. Infant care for one child would consume 22.1% of a median family's income.
- Childcare access continues to be a struggle with only 9.1% of childcare programs offering non-traditional hours (evening, overnight or weekend hours).
- Childcare workers also struggle to get by. According to the Early Care and Learning Council, 70% of childcare providers report working a second job to make ends meet. Additionally, 65% of New York childcare worker families are participating in at least one public income support or health care program (EITC, Medicaid and CHIP, SNAP and/or TANF).

Costs facing New York's workforce

- More than 40% of hourly employees get no more than seven days notice about their upcoming schedules and 28% get three days or fewer. This unpredictability can decrease an individual's family stability and quality of life.
- About 40% of individuals reporting family incomes between $15,000 - $30,000 report being either unbanked or "underbanked," meaning they also rely on an alternative financial service. The average annual cost of not having a bank account is $196.50 for people who use a prepaid debit card that features direct deposit. That figure jumps to $497.33 if the card doesn't offer direct deposit, creating an adverse effect for low-income families.

NEW YORK'S ECONOMIC LANDSCAPE

7.8M
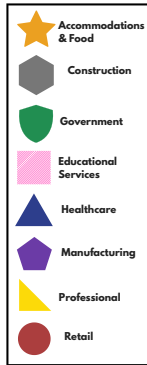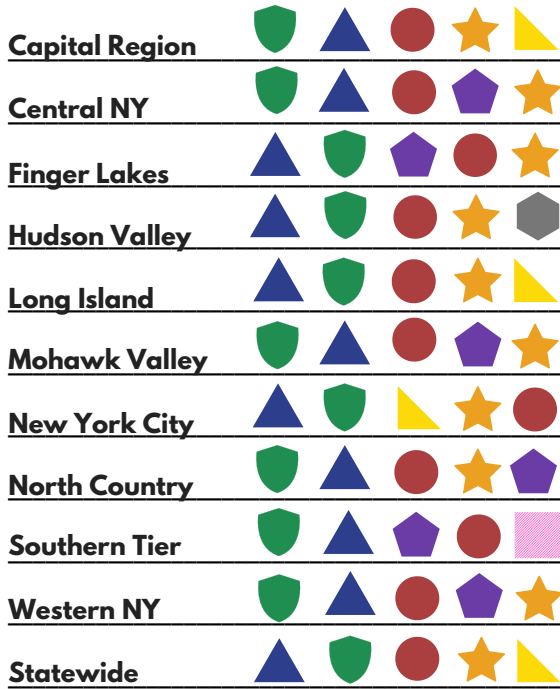JOBS ARE WITHIN THE TOP 8 SECTORS ACROSS NEW YORK

$62,800
MEDIAN HOUSEHOLD INCOME IN NEW YORK STATE

239,584
NEW YORKERS WORKING INVOLUNTARY PART-TIME JOBS

TOP 5 SECTORS BY REGION[1]

Region	1	2	3	4	5
Capital Region	Government	Healthcare	Retail	Accommodations & Food	Professional
Central NY	Government	Healthcare	Retail	Manufacturing	Accommodations & Food
Finger Lakes	Healthcare	Government	Manufacturing	Retail	Accommodations & Food
Hudson Valley	Healthcare	Government	Retail	Accommodations & Food	Construction
Long Island	Healthcare	Government	Retail	Accommodations & Food	Professional
Mohawk Valley	Government	Healthcare	Retail	Manufacturing	Accommodations & Food
New York City	Healthcare	Government	Professional	Accommodations & Food	Retail
North Country	Government	Healthcare	Retail	Accommodations & Food	Manufacturing
Southern Tier	Government	Healthcare	Manufacturing	Retail	Educational Services
Western NY	Government	Healthcare	Retail	Manufacturing	Accommodations & Food
Statewide	Healthcare	Government	Retail	Accommodations & Food	Professional

Legend:
- Accommodations & Food
- Construction
- Government
- Educational Services
- Healthcare
- Manufacturing
- Professional
- Retail

RECESSION INDICATORS[2]

Indicator	Value	Description
Quits Rate	2.3%	Steadily increased since 2009, but has not increased since June 2018.
Auto Sales	17.5 M	Steadily increased from 2009 - 2016, but decreased incrementally since 2016.
Multiple Jobs	5.0%	Remained steady since 2010, but recently has seen an uptick since 2018.

CHANGE IN JOBS BY SECTOR [3]

Sector	Change
Educational & Health Services*	+71,600
Leisure & Hospitality	+10,400
Trade, Transportation & Utilities	+10,400
Government	+9,100
Professional & Business Services	+7,900
Construction	+7,000
Information	+900
Natural Resources & Mining	+100
Financial Activities	-4,600
Manufacturing	-800
Other Services	-700

*Educational and health services is in the private sector. Government includes public education and public health services.

There is a total of 10.3 million jobs in New York, of which 7.8 million jobs are within the top 8 sectors: accommodation and food service, construction, government, educational services, healthcare, manufacturing, professional and technical services, and retail trade. Healthcare, government, and retail are top sectors in every region of the State[4].

Retail continues to be a top sector statewide. Although the retail industry is consistently transformed by online shopping, retailers across the country have announced more openings than closings in 2019. For every retail chain with a net closing of stores, 5.2 chains are opening stores overall. Food, drug, convenience, mass merchants, and restaurants all showed continued growth[5].

The economy has shown strong growth over the last decade; however, key indicators predict a recession is on the horizon. In August, economists became concerned about a recession when the yield curve inverted, which occurs when the interest rates on short-term bonds are higher than the interest rates paid by long-term bonds[6]. However, workforce professionals should also be aware of other tools that can predict an economic slowdown is forthcoming.

When workers are confident in the economy, they are more likely to quit voluntarily; the term for this is called "quits rate." The quits rate bottomed out shortly after the Great Recession ended and rose steadily until leveling off in the middle of last year. Another indicator is auto sales. When new car sales are strong, it's a sign consumers are feeling positive about the economy[7]. Lastly, a shift to part-time work, or the need to hold multiple jobs, can demonstrate a slowing economy. From 2017 to 2018, those holding multiple jobs increased by 224,000 nationwide. Those who hold multiple part-time jobs increased by 38,000[8]. The average workweek in the private sector dipped to 34.3 hours in July 2019, down from 34.5 hours both in March 2019 and the year earlier. That's the lowest level, and largest annual decline, since early 2017[9]. Employers may move employees to part-time work before laying off workers.

Automation will continue to impact the State's economy as advancements in technology change the nature of jobs. Automation means that jobs will be done differently, not necessarily that jobs will disappear. In a McKinsey Global Institute study, research showed that existing technology could fully automate only 5% of occupations today, but 60% of occupations could see at least 30% of their activities automated, indicating the potential for dramatic change[10].

Per the New York State Energy Research & Development Authority, nearly 159,000 New Yorkers are working in the clean energy industry. Clean energy saw 8.9% employment growth since 2016; stronger growth than the State's overall economy, which grew 3.4% in that time. Energy Efficiency continues to be the largest clean energy technology category with 123,292 jobs, or 78% of all clean energy employment in New York[13].

All regions in New York have clean energy workforce opportunities across all education and experience levels. Most of the entry-level positions start at several dollars higher than minimum wage, while experienced workers can make well over $70 per hour in certain occupations. Over 80% of employers who hired clean energy workers in the past year had difficulty hiring, with incoming talent lacking experience, training, or technical skills, as well as industry-specific knowledge[14].

Low-wage jobs continue to dominate New York's labor market. Of the top 10 occupations that make up over 1.7 million jobs, nine out of ten pay less than $32,000 per year. Among the top 10 occupations statewide, only one surpasses $50,000 at the height of the career[15]. According to United Way of New York, the cost of basic household expenses for a family of four is $68,808[16]. Even in a dual-income family, half of the top 10 occupations would not meet this income threshold if both individuals had the same job.

Many low-wage occupations are hourly jobs, which face additional barriers than salaried positions. More than 40% of hourly employees get no more than seven days notice about their upcoming schedules and 28% get three days or fewer[17]. This unpredictability can decrease an individual's family stability and quality of life. Additionally, 2.5% of the labor force are working involuntary part-time jobs. This totals to an estimated 239,584 New Yorkers who would like to work full-time, but are unable to find full-time work for economic reasons[18]. Similarly, across the country, 5.3% of workers hold multiple jobs to make ends meet[19].

1.2 MILLION

highly automatable jobs that will require technology fluency in coming years[11]

CLEAN AND GREEN ECONOMY [12]

159,000
clean energy jobs across New York in 2018

80%
of employers hiring clean energy workers over the past year had difficulty hiring

$65,000
median annual salary of a clean energy worker

10 LARGEST OCCUPATIONS STATEWIDE [20]

	# Jobs	Entry Pay	Median Pay	Experienced Pay
Retail Salespersons	302K	23K	$25K	$31K
Personal Care Aides	199K	24K	$26K	$30K
Cashiers	197K	22K	$24K	$26K
Home Health Aides	192K	23K	$25K	$28K
Janitors and Cleaners	191K	25K	$31K	$43K
Food Prep and Serving Workers	190K	23K	$24K	$27K
Office Clerks, General	189K	25K	$33K	$42K
Registered Nurses	182K	67K	$85K	$101K
Secretaries and Admin. Assistants	179K	32K	$40K	$50K
Waiters and Waitresses	167K	23K	$28K	$42K

WHO IS WORKING IN NEW YORK

7 out of **10**
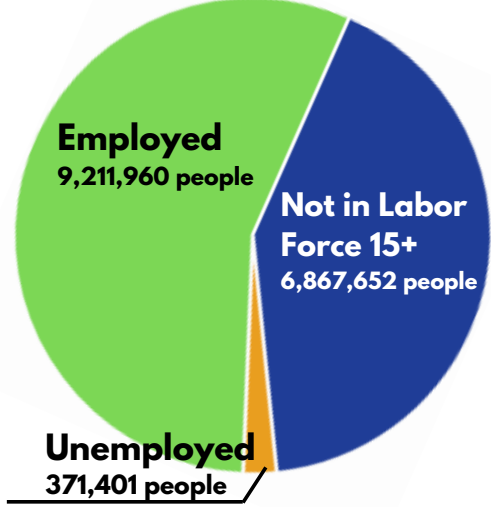REGIONS DECLINED IN OVERALL LABOR FORCE

9.2 M
WORKERS OVER THE AGE OF 15 IN NEW YORK'S LABOR FORCE

38%
OF THOSE WORKING IN THE GIG ECONOMY NATIONWIDE ARE AGES 18 TO 24

NEW YORK LABOR FORCE [21]
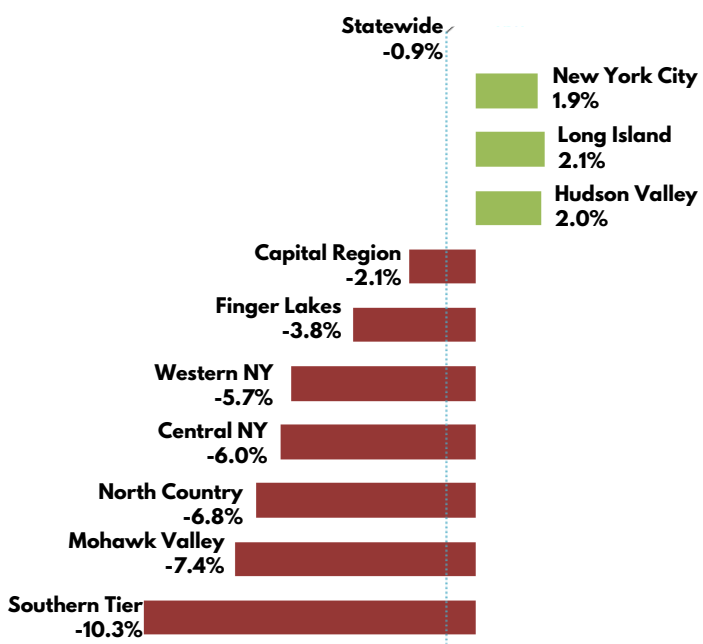
16,451,013 Working Age New Yorkers

Employed
9,211,960 people

Not in Labor Force 15+
6,867,652 people

Unemployed
371,401 people

7.6% CURRENT U-6 UNEMPLOYMENT RATE

U-6 unemployment rate measure includes official unemployment, discouraged and marginally attached workers, and those who are part-time purely for economic reasons[22].

REGIONAL CHANGES IN LABOR FORCE [23]

2012 - 2019

Statewide -0.9%

New York City 1.9%
Long Island 2.1%
Hudson Valley 2.0%
Capital Region -2.1%
Finger Lakes -3.8%
Western NY -5.7%
Central NY -6.0%
North Country -6.8%
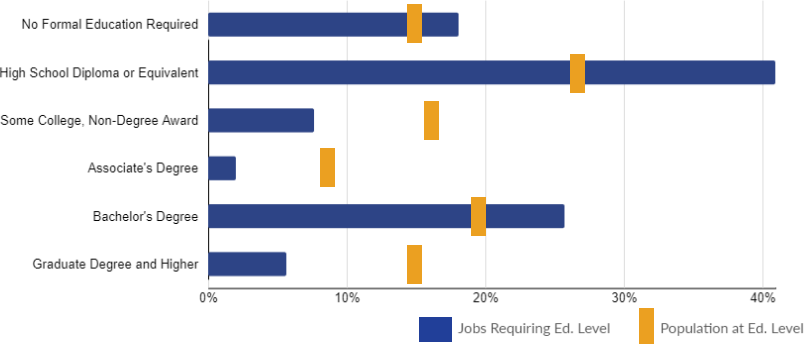Mohawk Valley -7.4%
Southern Tier -10.3%

National unemployment rates have hit record lows. New York is also experiencing a variable, but overall low, unemployment rate regionally. As of July 2019, the lowest unemployment rate regions are Long Island (3.5%), Hudson Valley (3.6%) and the Capital Region (3.8%). Regions hovering in the middle are New York City (4.2%), Finger Lakes (4.2%), Central New York (4.5%), Southern Tier (4.6%) and Western New York (4.6%). The highest unemployment rates are Mohawk Valley (4.9%) and North County (5.8%). Statewide the official unemployment rate is 4.2%[24]. If we also include discouraged, marginally attached, and workers who are part-time for economic reasons, the unemployment rate is 7.6%[25].

The youth unemployment rate is 20.7% for ages 16 to 19 and 11.6% for ages 20 to 24[26]. For youth ages 16 to 24, part-time work has dominated job growth with industries relying more heavily on part-timers[27]. High unemployment exacerbates growing economic inequality. By comparison, wages and incomes for young adults today are lower than wages and incomes for prior years. Many youth are participating in the gig economy, a term used to reference the wave in independent contracting, to work several contingent jobs. Of those working in the gig economy nationwide, 38% are ages 18-24[28].

New York's gig economy is notoriously hard to count. Currently, over three in ten families nationwide are said to receive income from self-employment or gig work[29]. While data that captures a portion of these workers estimates the numbers continue to rise, new legislation to limit companies' ability to use independent contracting is on the rise. California has already attempted to limit these workers, claiming that apps such as Uber and Lyft must have their drivers registered as employees. New York is expected to follow with legislation aimed to protect workers and ensure they receive the same benefits and rights as other employees[30].

The number of New Yorkers available for work continues to decline. From 2012 to 2017, New York saw a net rise in labor force of 0.4%. Since then, New York has seen a net loss of -0.9% from 2012 to 2019. There are regional differences in the percentage of working age adults. New York City, Long Island, and the Hudson Valley regions experienced nominal growth; the remaining regions ranged from -2.1% in the Capital Region to -10.3% in the Southern Tier[31]. Coupled with low unemployment rates, the reduction in available labor force has created a very tight labor market across New York, meaning the State must maximize underutilized potential labor.

UNDEREMPLOYMENT BY EDUCATION LEVEL [32]

- No Formal Education Required
- High School Diploma or Equivalent
- Some College, Non-Degree Award
- Associate's Degree
- Bachelor's Degree
- Graduate Degree and Higher

(0% – 40%)

■ Jobs Requiring Ed. Level   ■ Population at Ed. Level

AGING WORKFORCE IN TOP SECTORS [33]

Government	26.6%	401,883
Healthcare	28.8%	511,544
Manufacturing	31.2%	150,621
Professional Services	23.7%	240,208
Retail	20.8%	226,586

FOREIGN-BORN [34]

4,490,656 *foreign-born population in NYS*

	POPULATION	BRAIN WASTE
NYC	37.8%	33%
Long Island/ Hudson Valley	18%	26% - 27%
Other regions	4% - 7%	17% - 19%

VETERANS [35]

WNY 89,116
Capital 67,308
CNY 48,602
Finger Lakes 69,159
Hudson Valley 93,489
Long Island 115,372
Mohawk 34,775
New York City 163,465
North Country 33,333
So. Tier 43,280

757,900 total veteran population in NYS

INDIVIDUALS WITH DISABILITIES [36]

WNY 188,469
Capital 135,433
CNY 101,109
Finger Lakes 161,637
Hudson Valley 247,179
Long Island 255,750
Mohawk 72,561
New York City 916,271
North Country 61,239
So. Tier 92,573

2,232,221 total disabled population in NYS

Underutilized labor are individuals that are willing and able to work, but may lack the appropriate skills, experience, or opportunities to access employment. This includes veterans, individuals with disabilities, New Yorkers that are justice-involved, and immigrants.

There are over 2.2 million New Yorkers with a disability; however, they experience an extremely high unemployment rate at over 62.7%. Moreover, over a quarter of working-age Americans with disabilities live in poverty, compared to one in ten persons without disabilities[37]. These numbers have decreased since 2017, yet remain very high compared to individuals without disabilities.

Today, an estimated 230,000 New York residents are in New York's criminal justice system: 50,000 New Yorkers are in state prisons, 11,000 are in federal prisons, 27,000 in local jails, 1,400 are youth, and 1,100 are in involuntary confinement. Furthermore, 96,000 New Yorkers are on probation and 43,000 are on parole[38]. A 2018 study conducted by the Prison Policy Initiative found that formally incarcerated people are unemployed at a rate of over 27%[39].

Another potential workforce may be college-educated persons that are either unemployed or employed in unskilled jobs. This 'brain waste' affects U.S. Natives and immigrants differently in different areas of the state. In NYC and the surrounding-areas, where the foreign-born population is much higher, immigrants are more adversely affected. In NYC, only 17% of U.S. Natives face brain waste, compared to 33% brain waste of foreign-educated immigrants. On Long Island, U.S. Natives brain waste is 16%, compared to 26% brain waste of foreign-educated immigrants. Similarly, Hudson Valley has 19% brain waste for U.S. Natives and 27% for foreign-educated immigrants. In other areas of the state that have a much smaller foreign-born population (between 4% - 7%), the brain waste is very similar among U.S. Natives and immigrants at approximately 17 – 19%[40].
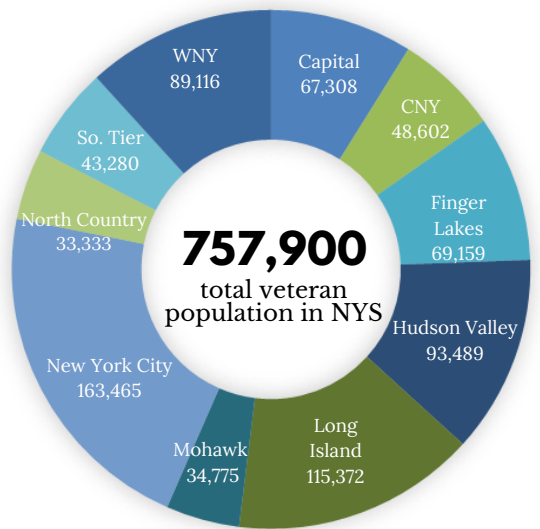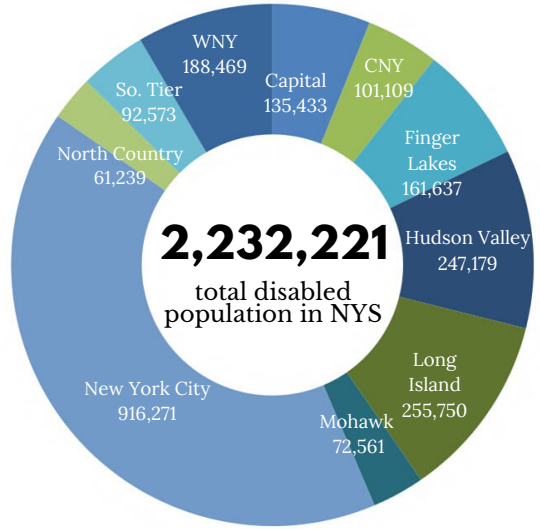
COSTS FACING NEW YORK'S WORKFORCE

$1,283
PER MONTH, IS THE AVERAGE COST OF BASIC CHILDCARE FOR AN INFANT

9.1%
OF CHILDCARE PROGRAMS OFFER NON-TRADITIONAL HOURS

$32,200
AVERAGE STUDENT LOAN DEBT BURDEN PER PERSON

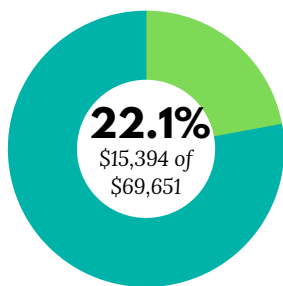## ANNUAL COST ACROSS NEW YORK [41]

College: $7,938

Housing: $14,677

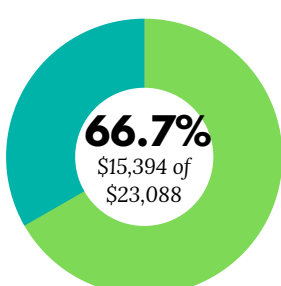Infant care: $15,394

4-year-old care: $12,358

SHARE OF INCOME FOR INFANT CARE [42]

FOR A MEDIAN FAMILY WITH CHILDREN

22.1%
$15,394 of $69,651

FOR A MINIMUM-WAGE WORKER

66.7%
$15,394 of $23,088

FOR A MEDIAN CHILD CARE WORKER

57.5%
$15,394 of $26,780

65% of New York childcare worker families are participating in at least one public income support or health care program (EITC, Medicaid and CHIP, SNAP and/or TANF) [43]

In 2016, United Way of New York State determined 45% of New Yorkers were "working poor" and lacked a family sustaining wage, considering conservative estimates of basic monthly costs like housing, childcare, food, transportation, health care, and taxes. The cost of basic household expenses has increased in New York to an average of $68,808 for a family of four (two adults with one infant and one preschooler) and $23,148 for a single adult. The cost of childcare has surpassed housing as the most expensive category of basic living, creating a significant barrier for families [44]. The average annual cost of infant care in New York is $15,394, or $1,283 per month. Childcare for a 4-year-old costs $12,358 annually, or $1,030 per month. New York is ranked 6th out of 50 states and the District of Columbia for the most expensive infant care [45].

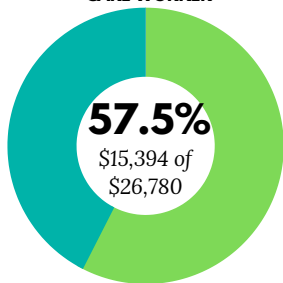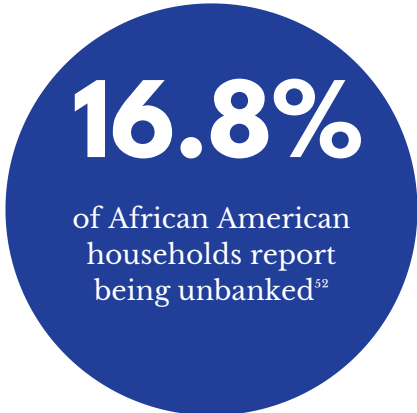Childcare is unaffordable for median income families in New York. Infant care for one child would consume 22.1% of a median family's income. According to the U.S. Department of Health and Human Services, childcare is affordable if it costs no more than 7% of a family's income. By this standard, only 9.4% of New York families can afford infant care. Families with two children face an even larger burden. Childcare for two children, an infant and a 4-year old, costs $27,752; that's 47.1% more than the average rent in New York. A typical family in New York would have to spend 39.8% of its income on childcare for an infant and a 4-year-old [46]. Childcare for low-wage workers is a significant barrier to work.

Not only is the cost high, childcare is unavailable in many high poverty areas across the state. For example, 55 out of the 62 New York counties have at least one high childcare need area. These areas are identified if 25% or more of the families have incomes below 200% of the Federal Poverty Level and there is a ratio of 3 or more children under 5 years of age, per regulated childcare slot. As of March 2017, there were 630,444 regulated childcare slots in 17,221 programs, of which only 9.1% of programs offer non-traditional hours (evening, overnight or weekend hours) [47].

Nationally, childcare workers' families are more than twice as likely to live in poverty than other workers' families. A median childcare worker in New York would have to spend 57.5% of their earnings to put their own child in infant care [48]. Approximately 65% of New York childcare worker families are participating in at least one public income support or healthcare program [49].

CHILDCARE WORKER WAGES[51]

	Master's	Bachelor's	Associate's	CDA
For-Profit Center	$21.64	$17.25	$14.63	$13.31
Non-Profit Center	$19.21	$16.28	$13.71	$12.43
Family Care Home	--	$14.50	$13.60	$10.88
Group Family Care Home	$17.87	$15.68	$13.63	$10.63

As articulated in the chart to the left, there are four different types of childcare settings in New York: for-profit center, non-profit center, family care home, and group family care home. One of the challenges associated with expanding childcare access is filling the increasing number of jobs in the sector. Depending on the setting, the pay and structure varies, with for-profit centers providing the highest wages for workers at every education level. Childcare providers can have various education levels starting with a Child Development Associate (CDA) credential and continuing up to Master's Degree-level staff, but the pay very rarely makes up for the time and money spent on postsecondary education in this sector. According to the Early Care and Learning Council, 70% of childcare providers report working a second job to make ends meet[50].

NEW YORKER'S FINANCIAL SECURITY

16.8%
of African American households report being unbanked[52]

$3,800
average credit card debt per New Yorker[53]

72%
of black students who attend for-profit colleges default within 12 years[54]

Data from the Federal Deposit Insurance Corporation reports that 8.7% of New York State Households say they are "unbanked," meaning they do not own a checking or a savings account. This is slightly higher than the percent of households nationally that report being unbanked (7.7%). Around twice as many African American households report being unbanked (16.8%) and around 20% of Latino households are unbanked. Approximately 13% of those "not in the labor force" report being unbanked and about 40% of individuals reporting family incomes between $15,000 - $30,000 report being either unbanked or "underbanked," meaning they also rely on an alternative financial service[55].

Without access to a financial institution that offers basic services, such as free check cashing and loans with reasonable interest rates, unbanked consumers rely on expensive alternative financial-service providers to cash checks and take out money orders. The accompanying fees cost these households hundreds of dollars per year. The average annual cost of not having a bank account is $196.50 for people who use a prepaid debit card that features direct deposit. That figure jumps to $497.33 if the card doesn't offer direct deposit[56].
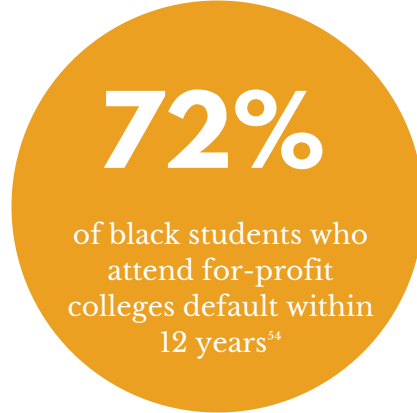
New Yorkers, per capita, carry about $3,800 in credit card debt. Around 4% of the total debt New Yorkers hold, including mortgages, is more than 90 days delinquent[57]. Delinquent debt is important because it requires repayment, but also because it is reported on credit reports and affects a household's ability to access credit, among other things. Auto loans have the lowest delinquency rate, while student loans have the highest[58].

A 2015 study into student loans showed that New Yorkers with student loans have an average debt burden of $32,200. Around 10% of New Yorkers are more than 90 days delinquent on their student loans[59]. The implications of student loan debt can be enormously consequential to individual and family financial health. Carrying even non-delinquent student loan debt reduces a borrower's ability to save for the future and build assets.

One in four New Yorkers in default on student loans attended a for-profit school, even though for-profits enroll just 7% of all New York students. In New York State, 72% of black students who attend for-profit colleges default within 12 years, while the default rate is only 25% for black students who attend public and non-profit colleges[60].

PATHWAYS TO WORK

42%
OF NEW YORKERS HAVE A HIGH SCHOOL DIPLOMA OR LESS

2.2 M
NEW YORKERS HAVE SOME COLLEGE CREDITS BUT NO DEGREE

5%
OF WIOA ADULT AND DISLOCATED WORKER CUSTOMERS RECEIVE TRAINING SERVICES

Based on the latest available data, about 80% of public high school students graduated in 2014. A high school diploma is a critical credential in today's economy, and completing high school prepared for college is essential to college success. Students from low-income families graduate at a rate of 7% less than their counterparts, while only 56% of students with disabilities graduate[63].
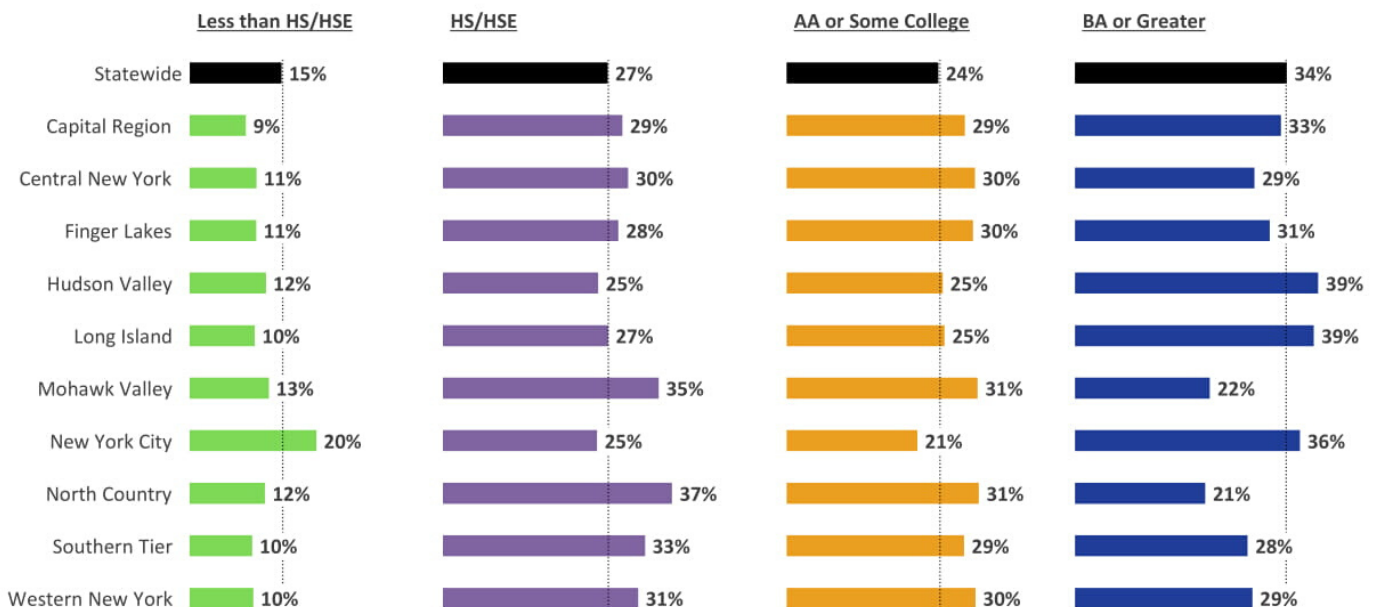
Currently, jobs requiring a high school diploma have the greatest share of jobs (4.2 million); however, wages are significantly lower compared to jobs requiring an Associate's Degree or higher. Approximately 42% percent (5.65 million) of New Yorkers have a high school diploma/equivalency or less. Of the individuals who completed less than a high school diploma or high school equivalency, half never even entered the 9th grade. In New York, 1,014,298 people have less than a 9th grade education. Of the 24% of New Yorkers who have Some College or an Associate's Degree, two-thirds, or 2,168,947 people, have some college credits, but no degree[64].

With almost 2 million New York residents having less than a high school diploma, adult education provides an opportunity to upskill New York's available workforce. More than 90,200 were served this past year by the Adult Basic Education (ABE) and English as a Second language (ESL) learning system. Over 57% of these students demonstrated an education gain in these programs, and 45% of students go on to pass the High School Equivalency TASC exam. Students who take the exam without enrolling in a program pass at a lower rate of only 41.5%. Adult education populations vary statewide. Downstate programs serve predominately non-white students and those who are currently in part-time or full-time work, while Upstate programs have significantly higher proportions of white students that are largely unemployed at the time of entry[65].
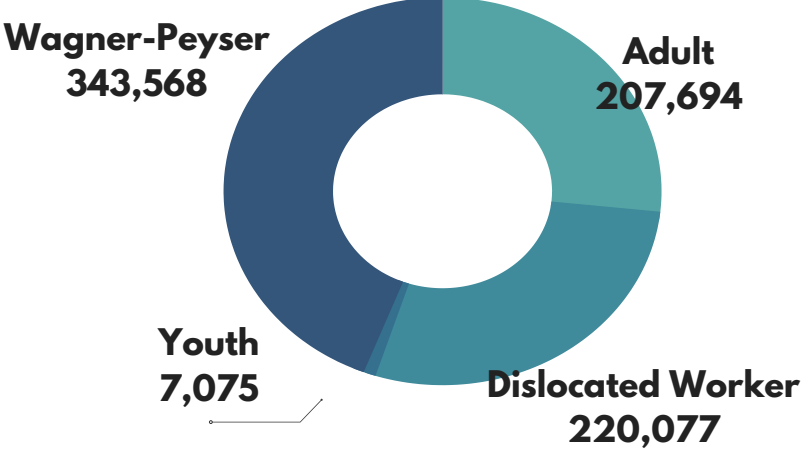
ADULT EDUCATION ACHIEVEMENT[61]

EDUCATION LEVEL	HSE DIPLOMA		FAIL	
5,630 adult education students took the HSE exam				
	percent vs. number of students			
ABE1	13%	2	88%	14
ABE2	10%	37	90%	341
ABE3	26%	472	74%	1353
ABE4	59%	1183	41%	827
ABE5	80%	504	20%	129
ABE6	82%	223	18%	50
ESL1	17%	12	83%	60
ESL2	28%	33	73%	84
ESL3	22%	15	78%	52
ESL4	35%	29	65%	55
ESL5	24%	28	76%	89
ESL6	32%	12	68%	26
OVERALL	**45% PASS**		**55% FAIL**	

EDUCATIONAL ATTAINMENT BY REGION[62]

	Less than HS/HSE	HS/HSE	AA or Some College	BA or Greater
Statewide	15%	27%	24%	34%
Capital Region	9%	29%	29%	33%
Central New York	11%	30%	30%	29%
Finger Lakes	11%	28%	30%	31%
Hudson Valley	12%	25%	25%	39%
Long Island	10%	27%	25%	39%
Mohawk Valley	13%	35%	31%	22%
New York City	20%	25%	21%	36%
North Country	12%	37%	31%	21%
Southern Tier	10%	33%	29%	28%
Western New York	10%	31%	30%	29%

WIOA EXITERS IN NEW YORK JULY 2017 - JUNE 2018[66]

Wagner-Peyser 343,568

Adult 207,694

Youth 7,075

Dislocated Worker 220,077

WIOA FUNDED TRAINING[67]

MOST COMMON NATIONALLY, JULY 2016 - MARCH 2017

1. Heavy and Tractor-Trailer Truck Drivers
2. Nursing Assistants
3. Registered Nurses
4. Licensed Practical and Vocational Nurses
5. Medical Assistants
6. Medical Records and Health Information Technicians
7. Customer Service Representatives
8. Computer User Support Specialists
9. Dental Assistants
10. Light Truck or Delivery Services Drivers

APPRENTICESHIP IN NYS[68]

New Apprenticeship Trades (2018 to 2019):

- Software Developer
- Electro-Mechanical Technician
- Airframe & Powerplant Mechanic
- Data Analyst
- Hospital (Medical) Coder
- Industrial Manufacturing Technician

COLLEGE GRADUATION RATES

CUNY Institutional Graduation Rates[69]

2-Year Degree (2015 Cohort)	**7.7%** (in 2 years)	**22.2%** (in 3 years)
4-Year Degree (2012 Cohort)	**25.9%** (in 4 years)	**58.9%** (in 6 years)

SUNY Institutional Graduation Rates[70]

2-Year Degree (2014 Cohort)	**14.6%** (in 2 years)	**28.7%** (in 3 years)
4-Year Degree (2011 Cohort)	**53.3%** (in 4 years)	**68%** (in 6 years)

Another pathway to access education, training, and employment is the federally funded Workforce Innovation and Opportunity Act (WIOA) programs. In Fiscal Year 2020, the federal government has sustained funding for WIOA and slightly increased funding levels for Adult Education, Apprenticeship, Career and Technical Education, and Vocational Rehabilitation Programs. WIOA programs provide services through a network of Career Centers, also known as American Job Centers, ranging from prevocational services, like resume writing and job coaching through employment, to occupational training services. The bulk of services are provided to adults over age 18 and the vast majority are unemployed at enrollment.

Of WIOA exiters in New York from July 2017 - June 2018, 343,568 are Wagner-Peyser, 207,694 are Adult, 220,077 are Dislocated Worker (DW) and 7,075 are Youth. As of Quarter 3 of Program Year 2018, 5% or 15,876 Adult and DW customers received training, of which 69% of Adult and 66% of DW were employed two quarters after their exit. These customers saw an average wage increase of 12% after receiving training[72].

Apprenticeships are another tool used to increase the pipeline of skilled workers. In New York, apprenticeships are largely focused in the trades. Over the last several years, policymakers at the federal and state levels have worked to expand the apprenticeship model into new occupations. New York has added thousands of new apprentices and a handful of new trades in different sectors. This includes several in information technology and healthcare[73].

Graduation rates at the State and City public institutions have increased for both 2-year and 4-year degrees in the most recent cohorts. Across the SUNY and CUNY systems, almost 2 million people are enrolled, of which over half of students are in continuing education and adult programs. CUNY institutions awarded 334 certificates and SUNY institutions awarded 2,643 certificates in 2017-2018. Nearly 26% of SUNY students, both undergraduate and graduate, participated in a form of applied learning opportunities; 11.9% of students participated in an internship. Comparatively, 11.4% of CUNY undergraduates participated in a paid internship. High quality work experiences are important to lessen underemployment and support academic persistence and completion, as well as career advancement[74].
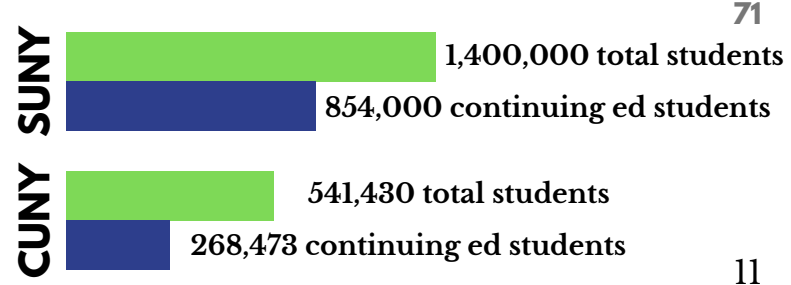
PUBLIC COLLEGE POPULATION [71]

SUNY
- 1,400,000 total students
- 854,000 continuing ed students

CUNY
- 541,430 total students
- 268,473 continuing ed students

SOURCES

1. NYATEP analysis of EMSI labor market data, 2019.
2. NYATEP analysis of U.S. Bureau of Labor Statistics (BLS), multiple jobholders by selected characteristics, 2018, and quits levels and rates by industry and region, seasonally adjusted, 2019; and U.S. Bureau of Economic Analysis, Total Auto Sales, 2019.
3. New York State Department of Labor, Division of Research and Statistics, NYS Economy Adds 8,900 Private Sector Jobs in August 2019
4. NYATEP analysis of EMSI labor market data, 2019.
5. IHL, Retail's Renaissance – True Story of Store Openings/Closings, August 2019.
6. New York Times, A Recession Is Coming (Eventually), Ben Casselman, July 2019.
7. Ibid.
8. NYATEP analysis of BLS, Alternative Measures of Labor Underutilization for States, 2019.
9. USA Today, Workers are putting in fewer hours. Is that a sign a recession is coming?, Paul Davidson, September 2019.
10. McKinsey Global Institute, Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages, November 2017.
11. Center for an Urban Future, Preparing New York State's Workforce for Automation, March 2019.
12. New York State Energy Research and Development Authority, New York Clean Energy Industry Report, September 2019.
13. Ibid.
14. Ibid.
15. NYATEP analysis of BLS, State Occupational Employment and Wage Estimates, May 2018.
16. United Way of New York State, ALICE Report, 2018.
17. The Atlantic, Why You Never See Your Friends Anymore, Judith Shulevitz, November 2019.
18. NYATEP analysis of BLS, Alternative Measures of Labor Underutilization for States, 2019.
19. NYATEP analysis of BLS, multiple jobholders by selected characteristics, 2018.
20. NYATEP analysis of BLS, State Occupational Employment and Wage Estimates, May 2018.
21. NYATEP analysis of EMSI labor market data, 2019.
22. NYATEP analysis of BLS, Alternative Measures of Labor Underutilization for States, 2019.
23. NYATEP analysis of EMSI labor market data, 2019.
24. Ibid.
25. NYATEP analysis of BLS, Alternative Measures of Labor Underutilization for States, 2019.
26. NYATEP analysis of EMSI labor market data, 2019.
27. JobsFirstNYC, Barriers to Entry: Fewer Out-of-School, Out-of-Work Young Adults as Warning Signs Emerge, March 2018.
28. Edison Research, The Gig Economy, December 2018.
29. The Federal Reserve System, Report on the Economic Well-Being of U.S. Households in 2017, May 2018.
30. New York Times, California Bill Makes App-Based Companies Treat Workers as Employees, September 2019.
31. NYATEP analysis of EMSI labor market data, 2019.
32. Ibid.
33. Ibid.
34. NYATEP analysis of EMSI labor market data, 2019 and Migration Policy Institute analysis of the U.S. Census Bureau's American Community Survey (ACS) and Decennial Census.
35. NYATEP analysis of EMSI labor market data, 2019.
36. Ibid.
37. Cornell University Institute on Employment and Disability, The Latest Statistics on Americans with Disabilities, January 2019.
38. Prison Policy Institute, Profile of New York State, 2018.
39. Adirondack Daily Enterprise, Life After Prison in New York State, Ronald Fraser, March 2019.
40. Migration Policy Institute analysis of the U.S. Census Bureau's American Community Survey (ACS) and Decennial Census.
41. Economic Policy Institute, The Cost of Childcare in New York, July 2019.
42. Ibid.
43. Early Care and Learning Council, Child Care Resource and Referral Network Survey, December 2018.
44. United Way of New York State, ALICE Report, 2018.
45. Economic Policy Institute, The Cost of Childcare in New York, July 2019.
46. Ibid.
47. New York State Office of Children and Family Services, NY Child Care Demographics Report, 2017.
48. Economic Policy Institute, The Cost of Childcare in New York, July 2019.
49. Early Care and Learning Council, Child Care Resource and Referral Network Survey, December 2018.
50. Ibid.
51. Ibid.
52. The Financial Clinic analysis of Federal Deposit Insurance Corporation, 2017.
53. The Financial Clinic analysis of Federal Reserve Bank of New York, Consumer Credit Panel, Q2 2019.
54. The Century Foundation, Grading New York's Colleges, March 2018.
55. The Financial Clinic analysis of Federal Deposit Insurance Corporation, 2017.
56. Nerd Wallet, The Cost of Being Unbanked, Tony Armstrong.
57. The Financial Clinic analysis of Federal Reserve Bank of New York, Consumer Credit Panel, Q2 2019.
58. Ibid.
59. Office of the New York State Comptroller, Student Loan Debt in New York, September 2016.
60. The Century Foundation, Grading New York's Colleges, March 2018.
61. New York State Education Department analysis of ASISTS Adult Education Data and NYSED HSE Data, FY 2019.
62. NYATEP analysis of EMSI labor market data, 2019.
63. New York State Education Department, Office of Research and Information Systems (ORIS), New York State Graduation Rate Data, January 2019.
64. NYATEP analysis of EMSI labor market data, 2019.
65. New York State Education Department analysis of ASISTS Adult Education Data and NYSED HSE Data, FY 2019.
66. United States Department of Labor: Employment and Training Administration, WIASRD PY 2017 Data Book, June 2019.
67. Ibid.
68. New York State Department of Labor, Apprenticeship Update, September 2018.
69. City of New York, Office of Institutional Research and Assessment, Graduation Rates, 2019.
70. New York State Education Department, Office of Research and Information Systems (ORIS), Graduation Rates, 2019.
71. City of New York, Office of Institutional Research and Assessment; and New York State Education Department, Office of Research and Information Systems (ORIS),2019.
72. FutureWork Systems analysis of Public Use PIRL file, June 2019.
73. New York State Department of Labor, Apprenticeship Update, September 2018.
74. City of New York, Office of Institutional Research and Assessment; and New York State Education Department, Office of Research and Information Systems (ORIS), 2019.