The Labor Market, Technology & Politics ... and it’s impact on New York

April, 2018
• The New York Association of Training & Employment Professionals is New York’s workforce development association.

• NYATEP and its member’s provides the leadership, vision and advocacy for a thriving workforce in New York State.

• Our focus is ensuring that every New Yorker and employer in New York State has access to the skills they need to work in, and support a robust statewide economy.
What is keeping me up at night?
Where machines could replace humans—and where they can’t (yet)

By Michael Chui, James Manyika, and Mehdi Miremadi
Automation Potential and Wages for US Jobs

McKinsey analyzed the detailed work activities for over 750 occupations in the US to estimate the percentage of time that could be automated by adapting currently demonstrated technologies. Click on a data point or occupation family to learn more - a pop-up will show the work activities for each occupation considered. Click again to toggle off.
Tool and Die Makers – 87%
Heavy Tractor Trailer and Truck Drivers – 81%
Machinists – 81%
Pharmacy Technicians – 70%
Radiology Technicians – 47%
Licensed Practical Nursing – 16%
So, how will this impact jobs?

- Conversational Interfaces
- Virtual Reality
- Driverless Cars
- Automation
- Internet Of Things
- Shortage of data scientists and analysts driven by big data boom

https://public.tableau.com/profile/mckinsey.analytics#!/vizhome/AutomationBySector/WhereMachinesCanReplaceHumans
Now let's talk about that generation that we just can't seem to get to work…
Construction Workers Needed:

“Please do not apply if you oversleep, have court often, do not have a babysitter everyday, have to get rides to work later than our work day begins, experiences flat tires every week, have to hold on to a cell phone all day, or will become an expert at your job with no need to learn or take advice after the first day. Must be able to talk and work at the same time. Must also remember to come back to work after lunch. Should not expect to receive gold stars for being on time”
Engaging Millennials at Work

- Want to connect to the “why”
- They prefer a ‘flat’ work environment
- Tech savvy
- Task oriented NOT time oriented
- Continuous learners
- Want feedback (and recognition)
- Want to enjoy what they do

Pew Research Center

Note: Based on adults aged 18-29.
Labor Market Trends

The State of the Workforce in the U.S. and New York
Federal Context for the Labor Market

- In March, the unemployment rate was 4.1% for the sixth consecutive month, and the number of unemployed persons, at 6.6 million.

- Among the major worker groups, the unemployment rates for adult men (3.7 percent), adult women (3.7 percent), teenagers (13.5 percent), Whites (3.6 percent), Blacks (6.9 percent), Asians (3.1 percent), and Hispanics (5.1 percent) showed little or no change in March.

- At 1.3 million, the number of long-term unemployed (those jobless for 27 weeks or more); accounts for 20.3% of the unemployed.

- The labor force participation rate, at 62.9% changed little in March, and the employment-population ratio held at 60.4%.

- The number of persons employed part time for economic reasons was little changed at 5.0 million in March.

- In March, 1.5 million persons were marginally attached to the labor force. These individuals were not in the labor force, wanted and were available for work, and had looked for a job sometime in the prior 12 months.

- Among the marginally attached, there were 450,000 discouraged workers in March, essentially unchanged from a year earlier. Discouraged workers are persons not currently looking for work because they believe no jobs are available for them. The remaining 1.0 million persons marginally attached to the labor force in March had not searched for work for reasons such as school attendance or family responsibilities.
Federal Context for Labor Market

5 of the 10 Fastest Growing Occupations are Related to Healthcare

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent change, projected 2016-26</th>
<th>Employment change, projected 2016-26 (in thousands)</th>
<th>Median annual wages, May 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar photovoltaic installers</td>
<td>104.9%</td>
<td>11.8</td>
<td>$39,490</td>
</tr>
<tr>
<td>Wind turbine service technicians</td>
<td>96.3%</td>
<td>5.6</td>
<td>$53,880</td>
</tr>
<tr>
<td>Home health aides</td>
<td>47.3%</td>
<td>431.2</td>
<td>$23,210</td>
</tr>
<tr>
<td>Personal care aids</td>
<td>38.6%</td>
<td>777.6</td>
<td>$23,100</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>37.3%</td>
<td>39.6</td>
<td>$104,860</td>
</tr>
<tr>
<td>Nurse practitioners</td>
<td>36.1%</td>
<td>56.1</td>
<td>$103,880</td>
</tr>
<tr>
<td>Statisticians</td>
<td>33.8%</td>
<td>12.6</td>
<td>$84,060</td>
</tr>
<tr>
<td>Physical therapist assistants</td>
<td>31.0%</td>
<td>27.4</td>
<td>$57,480</td>
</tr>
<tr>
<td>Software developers, applications</td>
<td>30.7%</td>
<td>255.4</td>
<td>$101,790</td>
</tr>
<tr>
<td>Mathematicians</td>
<td>29.7%</td>
<td>0.9</td>
<td>$103,010</td>
</tr>
</tbody>
</table>

1 — U.S. Bureau of Labor Statistics • bls.gov
EXECUTIVE SUMMARY

The State of the Workforce Brief is a snapshot to inform communities about the dynamics of their regional economy and the workforce impact. The New York Association of Training & Employment Professionals embarked on this project to use 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 & training systems.

KEY FINDINGS FOR NEW YORK

New York rebounded from the recession, but it isn’t all good news.

- 7 out of the 10 regions across New York State saw significant job growth.
- Since August 2016, New York added 147,400 jobs, with the bulk of the jobs growing in Educational and Health Services, Leisure and Hospitality and Professional and Business Services.
- The average entry-level wage for the 10 largest occupations in the State (nearly 2 million jobs) is $29,200.
- The median wages ($24,000) for the fastest growing occupations are over 50% less than a family sustaining wage ($62,422) in New York State.

A shortage of workers threatens New York’s economic growth.

- All regions, except for New York City and Long Island, are seeing sizeable reductions in their available labor force.
- Nearly a quarter of the State’s workforce is age 55 or older, with sectors like healthcare and education being hit the hardest with more than 200,000 workers nearing retirement age.
- Youth ages 16 - 24 make up about a sixth of the workforce, however their unemployment rate is more than double the state rate at 10.5%. In New York City, that number grows to over 14%. This means a generation of workers is missing out on valuable work experience and reduced future earning potential.
- 41% (around 4 million) New Yorkers have a high school equivalency or less; with the increase in skills needed as technology advances will likely widen the relative wage gap between high skill and low skill New Yorkers.
- Over 90,000 high-skill, high-pay occupations largely, in tech fields, are utilizing H1B Visas to recruit workers.

Workforce must be a priority to support the State’s economic development in the next decade.

- ‘Middle skill’ jobs—jobs that require more than a high school diploma, but less than a four-year college degree—are growing in New York and will require training systems to adjust to fill open jobs.
- 1.5 million students are enrolled in the State and City public college systems. About half of students enrolled are in credit bearing courses. These students graduate at a rate of 17.3% and 25.9% at the CUNY and SUNY systems, respectively, for 2-year degrees. The other half of students are enrolled in non-credit coursework, which does include high quality, industry-recognized job training. However, aggregate graduation or credential-rate data for these students is not readily available.
- 14% of New Yorkers have less than a high school diploma, and the federal and state funded system can assist just over 100,000 make progress towards or completing a high school diploma or equivalency degree.
- Around 4% of the state’s primary job training resources, the Workforce Innovation and Opportunity Act (WIOA) funding, are spent on training over 12,000 New Yorkers. More than 68% of those served under WIOA are referred to employment, the primary purpose for these funds.
The good news: unemployment rate is down!

9,690,838 New Yorkers Over the Age of 16 Are In the Workforce

- **Unemployed**: 562,069 People, 5.8% Of Working Age Adults
- **Workers 16-54**: 7,049,325 People, 78% Of Workers, $64,407 Avg. Annual Wage
- **Workers 55+**: 1,937,902 People, 22% Of Workers, $73,294 Avg. Annual Wage

*Includes marginally attached

March Reports by the State is 4.7%
Bad news: We are facing a labor shortage!

REGIONAL CHANGES IN THE LABOR FORCE, 2010—2015

- Southern Tier: -7.5%
- North Country: -7.4%
- Mohawk Valley: -6.7%
- Central New York: -5.5%
- Western New York: +4.7%
- Finger Lakes: -3.9%
- Capital Region: -2.8%
- Hudson Valley: -1.4%
- Long Island: 0.2%
- New York City: 6.2%
The workforce is changing...

REGIONAL LABOR FORCE PARTICIPATION BY AGE GROUP

AGING WORKFORCE IN TOP SECTORS:

<table>
<thead>
<tr>
<th>Sector</th>
<th>55+</th>
<th>25 to 54</th>
<th>16 to 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>25.4%</td>
<td>397K</td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>17%</td>
<td>167K</td>
<td></td>
</tr>
<tr>
<td>Professional Services</td>
<td>19.8%</td>
<td>160K</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>26.9%</td>
<td>154K</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>25.3%</td>
<td>255K</td>
<td></td>
</tr>
<tr>
<td>Hospitality/Food</td>
<td>10.7%</td>
<td>73K</td>
<td></td>
</tr>
</tbody>
</table>

Over 25% of the sector is ages 55+
Education will play a key role in regional competitiveness moving forward...

Statewide Educational Attainment

EDUCATIONAL ATTAINMENT BY REGION

- Western New York: 10% Less than HS/HSE, 31% HS/HSE, 30% Associate or Some College, 29% Bachelor’s or Greater
- Southern Tier: 9% Less than HS/HSE, 33% HS/HSE, 29% Associate or Some College, 29% Bachelor’s or Greater
- North Country: 12% Less than HS/HSE, 37% HS/HSE, 31% Associate or Some College, 20% Bachelor’s or Greater
- Mohawk Valley: 11% Less than HS/HSE, 35% HS/HSE, 30% Associate or Some College, 23% Bachelor’s or Greater
- Finger Lakes: 10% Less than HS/HSE, 28% HS/HSE, 30% Associate or Some College, 31% Bachelor’s or Greater
- Central New York: 10% Less than HS/HSE, 29% HS/HSE, 31% Associate or Some College, 30% Bachelor’s or Greater
- Capital Region: 9% Less than HS/HSE, 28% HS/HSE, 29% Associate or Some College, 34% Bachelor’s or Greater
- Long Island: 9% Less than HS/HSE, 26% HS/HSE, 25% Associate or Some College, 39% Bachelor’s or Greater
- New York City: 19% Less than HS/HSE, 24% HS/HSE, 20% Associate or Some College, 37% Bachelor’s or Greater
- Hudson Valley: 12% Less than HS/HSE, 25% HS/HSE, 24% Associate or Some College, 39% Bachelor’s or Greater
Figure 5. Employment percentage of 25- to 64-year-olds with and without disabilities, by educational attainment: 2015

<table>
<thead>
<tr>
<th>Disability status</th>
<th>With disabilities</th>
<th>Without disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school completion</td>
<td>15</td>
<td>84</td>
</tr>
<tr>
<td>High school completion¹</td>
<td>22</td>
<td>82</td>
</tr>
<tr>
<td>Some college</td>
<td>31</td>
<td>76</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>35</td>
<td>73</td>
</tr>
<tr>
<td>Bachelor’s or higher degree</td>
<td>45</td>
<td>62</td>
</tr>
</tbody>
</table>

¹ Includes completion of high school through equivalency programs, such as a GED program.

NOTE: Respondents were classified as employed if they worked during any part of the survey week as paid employees. Those who were employed but not at work during the survey week were also included. Data are based on sample surveys of the noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities); data include military personnel who live in households with civilians, but exclude those who live in military barracks.

Figure 6. Employment percentage of 25- to 64-year-olds with and without disabilities, by sex and educational attainment: 2015

1 Includes completion of high school through equivalency programs, such as a GED program.

NOTE: Respondents were classified as employed if they worked during any part of the survey week as paid employees. Those who were employed but not at work during the survey week were also included. Data are based on sample surveys of the noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities); data include military personnel who live in households with civilians, but exclude those who live in military barracks. Although rounded numbers are displayed, the figures are based on unrounded estimates.

Statewide we have some work to do…

<table>
<thead>
<tr>
<th></th>
<th>CUNY College Graduation Rates</th>
<th>SUNY College Graduation Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Year Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2012 cohort)</td>
<td>5% (in 2 years)</td>
<td>13% (in 2 years)</td>
</tr>
<tr>
<td></td>
<td>17.3% (in 3 years)</td>
<td>25.9% (in 3 years)</td>
</tr>
<tr>
<td>4-Year Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2009 cohort)</td>
<td>21% (in 4 years)</td>
<td>50% (in 4 years)</td>
</tr>
<tr>
<td></td>
<td>48.4% (in 6 years)</td>
<td>66.2% (in 6 years)</td>
</tr>
</tbody>
</table>

Top Degrees:
- Business
- Liberal Arts
- Health

Top Degrees:
- Business
- Humanities
- Social Science

*NOTE: Graduation is reported at 150% of time to complete.*
Training outside of the traditional pipeline

10 MOST COMMON WIOA-FUNDED TRAINING NATIONALY

*July 2015—June 2016*

- Heavy and Tractor-Trailer Truck Drivers
- Nursing Assistants
- Registered Nurses
- Licensed Practical and Licensed Vocational Nurses
- Medical Assistants
- Welders, Cutters, Solderers, and Brazers
- Security Guards
- Customer Service Representatives
- Medical Records and Health Information Technicians
- Computer User Support Specialists

PERCENTAGE OF ADULT EDUCATION STUDENT ENROLLMENT

<table>
<thead>
<tr>
<th>REGION*</th>
<th>ABE/ASE</th>
<th>ESL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPITAL REGION/NORTH COUNTRY</td>
<td>76.65%</td>
<td>23.34%</td>
</tr>
<tr>
<td>CENTRAL NY/SO. TIER</td>
<td>60.9%</td>
<td>39.1%</td>
</tr>
<tr>
<td>FINGER LAKES</td>
<td>57.1%</td>
<td>42.9%</td>
</tr>
<tr>
<td>HUDSON VALLEY</td>
<td>34.67%</td>
<td>65.34%</td>
</tr>
<tr>
<td>LONG ISLAND</td>
<td>17.32%</td>
<td>82.68%</td>
</tr>
<tr>
<td>NEW YORK CITY</td>
<td>36.57%</td>
<td>63.43%</td>
</tr>
<tr>
<td>WESTERN NY</td>
<td>63.6%</td>
<td>36.4%</td>
</tr>
</tbody>
</table>

*Regions for Adult Education are defined by the State Education Dept.*

ABE = Adult Basic Education

ASE = Adult Secondary Education

ESL = English as a Second Language
If we want to see the next generation economy...we need to attract higher skill jobs

10 LARGEST OCCUPATIONS STATEWIDE, 2016

<table>
<thead>
<tr>
<th>Occupation</th>
<th># Jobs</th>
<th>Entry Wage</th>
<th>Median Wage</th>
<th>Exp. Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Salespersons</td>
<td>325K</td>
<td>$19K</td>
<td>$22K</td>
<td>$32K</td>
</tr>
<tr>
<td>Janitors and Cleaners</td>
<td>202K</td>
<td>$21K</td>
<td>$29K</td>
<td>$38K</td>
</tr>
<tr>
<td>Office Clerks, General</td>
<td>199K</td>
<td>$21K</td>
<td>$31K</td>
<td>$39K</td>
</tr>
<tr>
<td>Cashiers</td>
<td>198K</td>
<td>$19K</td>
<td>$20K</td>
<td>$24K</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants</td>
<td>197K</td>
<td>$27K</td>
<td>$39K</td>
<td>$46K</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>172K</td>
<td>$57K</td>
<td>$79K</td>
<td>$91K</td>
</tr>
<tr>
<td>Home Health Aides</td>
<td>162K</td>
<td>$21K</td>
<td>$23K</td>
<td>$25K</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>158K</td>
<td>$25K</td>
<td>$36K</td>
<td>$48K</td>
</tr>
<tr>
<td>General and Operations Managers</td>
<td>157K</td>
<td>$63K</td>
<td>$123K</td>
<td>$187K</td>
</tr>
<tr>
<td>Waiters and Waitresses</td>
<td>156K</td>
<td>$19K</td>
<td>$21K</td>
<td>$33K</td>
</tr>
</tbody>
</table>

Top 10 Occupation Expected to add the most jobs from 2014 to 2024
Persons with a disability were more concentrated in service occupations than those with no disability (21.3% v 17.6%).

Workers with a disability were more likely than those with no disability to work in production, transportation, and material moving occupations (14.6% v 11.6%).

Persons with a disability were less likely to work in management, professional, and related occupations than those without a disability (31.7% v 39.5%). (See table 3.)

The proportion of persons employed in government was about the same for both persons with a disability and persons without a disability in 2016 (14.0% v 13.6%).
“Politics is more difficult than physics.” – Albert Einstein
This sums it all up... a rollercoaster
**WIOA Title I**: Overall $80 million increase ($30 million Adult, $30 million Youth, and $20 million Dislocated Worker). The FY18 levels are: Adult $845.556 million; Youth $903.413 million and Dislocated Worker $1.260 billion.

**WIOA Title II**: Adult Education received a $35 million increase over FY2017 levels ($616.995 million)

**WIOA Title III**: Wagner Peyser decreased $5 million compared to FY2017 levels ($666.413 million)

**WIOA Title IV**: Vocational Rehab received a $54+ million increase over FY2017 ($3.452 billion)

**Youth Build** received a $5 million increase ($89.534 million)

**Migrant Seasonal Farm Worker** received a $6 million increase ($87.896 million)

**Perkins-CTE** funding received a $75 million increase over FY2017 levels ($1.192.598 billion)

**Apprenticeship** grants was increased $50 million to $145 million.
Executive Order on Work Requirements

The Executive Order directs the Secretaries of the Treasury, Agriculture, Commerce, Labor, Health and Human Services, Housing and Urban Development, Transportation, and Education to undertake a 90 day review process to:

• Review all current regulations and guidance relating to waivers or exemptions to work requirements in programs under their jurisdiction

• Review all public assistance programs that do not require work as a condition of eligibility, and determine whether a work requirement could be imposed

• Review all public assistance programs that do require work as a condition of eligibility and determine whether enforcement of those requirements is consistent with a set of “economic mobility” principles set forth in the order.
Federal Administrative Actions

U.S. Department of Labor

• Apprenticeship Task Force appointment.

• The rules are likely to establish a ‘third party’ apprenticeship system primarily run by business – outside of the traditional DOL Registered Apprenticeship. The administration believes this will circumvent federal regulations that may hinder creation of some apprenticeships.

U.S. Department of Education

• Executive Order on STEM and computer science funding which would increase federal grant funds by $200 million. The Department will need to create rules re-purposing existing programs to direct more money to STEM and computer science. Given the timing, we may not see those rules until early next year.
Other Federal tidbits

• Federal approach is very “free market will fix it”

• The Administration and USDOL are open to WIOA waivers – with good data and a case for reducing administrative burden

• Key influencers in D.C. are Governors and Business groups like the Business Roundtable and U.S. Chamber of Commerce

• Other items coming down the pike are: HEA, TANF and Perkins/CTE
What we set out to accomplish with ISNY…

• Build a statewide Coalition of workforce & economic development and business leaders that will be vocal advocates inside and outside of government for a skills agenda.

• Engage in an aggressive educational campaign about the statewide skills gap, and the opportunities to reform, expand & invest in the current system through original research and media.

• Advance the Coalition’s agenda through member education and advocacy to the NYS Governor and Legislative leaders.

#InvestInSkillsNY
What ISNY pushed for...

As the Legislature and Governor’s office negotiate a budget agreement, we strongly encourage that funding allocated for workforce development is:

• Regionally allocated through a competitive process like a Request for Proposals or a Consolidated Funding Application that is responsive to local needs throughout the year;

• Funds programs to address skills gaps throughout the entire workforce pipeline; and

• Utilizes this investment to underscore the critical connection between economic and workforce development, to reduce the silos between business and workforce development. To that end, we ask the Legislature to consider opportunities to increase coordination, oversight and implementation of workforce resources through both the New York State Department of Labor and Empire State Development Corporation.
Success!

Establish $175 Million Workforce Initiative: The FY 2019 Budget establishes a new approach for workforce investments that would support strategic regional efforts to meet businesses’ short-term workforce needs, improve regional talent pipelines, expand apprenticeships, and address the long-term needs of expanding industries – with a particular focus on emerging fields with growing demand for jobs like clean energy and technology.

Funds will also support efforts to improve the economic security of women, youth, and other populations that face significant barriers to career advancement.
What we know and don’t know…

We know where the money is coming from

We DON’T know how it will be distributed
What was approved in the Enacted Budget to create the “$175 million workforce funding”?

Previously Allocated through REDC CFA Process

- $5 million in ESD employment and training tax credits
- $5 million from NYSDOL that is WIOA money

Resources that are Workforce but NOT in a “workforce” bucket currently

- $50 million SUNY & CUNY 2020
- $15 million Off Shore Wind through NYSERDA
- $13 million for SUNY and CUNY’s contract courses for workforce development, the Next Generation Job Linkage program and funding for apprenticeship

“New, flexible” workforce Money ($89 million)

- $20 million NYSDOL re-employment services fund
- $69 million for Pay for Success – We have been assured these funds WILL NOT be pay for success models, but will be converted into flexible money for workforce
How we think it should be spent…

- Bridge Programs
- Integrated and Contextualized Training
- Sector-based workforce development
- Work-based Learning
What does this mean for workforce development?

• Get ahead of the technology shifts

• Advocate for what you do -- we shouldn’t be ‘best kept secrets’

• DATA – DATA – DATA

• Resistance to Change – be the field of ‘what if we’...

• Partner for business development – Business NEED workers
What you can do right now!

<table>
<thead>
<tr>
<th>Engage</th>
<th>Engage young adults early and often; work experience – lead with assets not deficits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Invest</strong></td>
<td>Invest in incumbent worker training and those with high school diplomas or less - - especially as the technology changes the landscape of work</td>
</tr>
<tr>
<td><strong>Recognize</strong></td>
<td>Recognize the changing ‘requirements’ of the workforce – workers are not just there to create profit (and retaining workers adds to the bottom-line)</td>
</tr>
<tr>
<td><strong>Integrate</strong></td>
<td>Integrate the economic development and workforce development systems; Solve employer “pain points”</td>
</tr>
</tbody>
</table>
Melinda Mack, Executive Director
New York Association of Training and Employment Professionals
mmack@nyatep.org
518-433-1200