



THE NEW JERSEY STATE FUTURE OF WORK TASK FORCE ROADMAP AND RECOMMENDATIONS

February 2022

[HTTPS://FOWTF.INNOVATION.NJ.GOV](https://fowtf.innovation.nj.gov)



MESSAGE FROM THE GOVERNOR

Thank you to the members of the Future of Work Task Force for your dedication to New Jersey's workforce.

In a rapidly changing economy directly impacted by the creation of new technology, inequality, and the challenges of the climate crisis, the state has an important and urgent role to play in equipping our residents to be successful. We must act now to address these challenges and take steps to strengthen workers' rights, including the right to organize; protect worker health and safety; and expand opportunities for lifelong learning.

Creating opportunities for new industries, well-paid work, and paths for career growth will be essential to our economy and to easing the fear and anxiety caused by the COVID-19 pandemic, which has had an enormous impact on the state labor market and work environment. The pandemic has raised and renewed serious concerns around the health and safety and economic security of workers. Specifically, the new prevalence of remote work may presage longer-term shifts in where, when, and how people work.

I am grateful that the Task Force has pivoted to address and respond to the challenges raised by COVID-19 without losing sight of its original purpose of addressing the influence of new technology on work. I applaud the Task Force for the forward-looking policies, practices, and strategies it has laid out.

The future of work is already here and we are committed to working with employers, organized labor, workers, and other stakeholders to advance the Task Force recommendations.

- Governor Philip D. Murphy



MESSAGE FROM THE CHAIR OF THE FUTURE OF WORK TASK FORCE

The following roadmap and recommendations are the product of a truly collaborative, multi-year process that intentionally involved thousands of people - it is the result of the insights and guidance provided by industry experts from government, academia, civil society, the private sector, and most importantly, the workers of New Jersey.

From the outset of the Task Force, we aspired to assemble and mobilize a diverse body of dedicated experts - not just to advise, but to act. As this document shows, the Task Force has not just formulated an array of recommendations that will better prepare New Jersey and its workers for the challenges and opportunities that technology will catalyze, but it has also taken action by launching and advancing core initiatives that will make the positive impact that is needed.

None of this work would be possible without the countless hours of work put in by Task Force members, and the dozens of expert and professional team members at the Office of the Governor, the Office of Innovation, the Heldrich Center for Workforce Development at Rutgers University, the State's Department of Labor and Workforce Development, Economic Development Authority, Department of Education, the Office of the Secretary for Higher Education, and countless other organizations.

Thank you for making this work possible, and for your dedication to the workers of New Jersey.

- Beth Simone Noveck

“

As technology transforms work, New Jersey must ensure the creation of good-quality jobs in safe and healthy workplaces that protect worker rights. We must also ensure workers have the ability to seek informed opportunities for lifelong learning and training, and the right to organize and bargain collectively.

- Governor Phil Murphy



The Future of Work Task Force was established by Governor Phil Murphy to evaluate how technological advancements will shape the future of New Jersey's economy and workforce, and produce an evidence-based policy roadmap to prepare the state for the future of work. Since the Task Force's inception, it has worked to implement the change that it is recommending throughout this document.

More information on the Future of Work Task Force can be found at:
<https://fowtf.innovation.nj.gov>

TABLE OF CONTENTS



Summary of Recommendations



About the Task Force



Technologies Impacting Work



Why Now?



Your Future of Work



How NJ is Already Responding



Detailed Recommendations

- ◎ **Summary of Recommendations**

- ◎ **About the Task Force**

- ◎ **Technologies Impacting Work**

- ◎ **Why Now?**

- ◎ **Your Future of Work**

- ◎ **How NJ is Already Responding**

- ◎ **Detailed Recommendations**



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

The State should invest in policies, platforms, and programs that respond to both the challenges that technology imposes on workers and the workplace, and the positive opportunities technology creates.



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

Core Recommendations

The Task Force's recommendations focus on three core areas:

- 1. INVEST IN WORKERS:** Support lifelong learning and skill building to make workers resilient to the changes technology will bring.
- 2. EMPOWER WORKERS:** Innovate to safeguard, enforce, and deliver worker rights and benefits.
- 3. PROTECT WORKERS:** Use new technology to protect worker health and safety.



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

1. INVEST IN WORKERS: **Support lifelong learning and skill building** to make workers resilient to the changes technology will bring

- a. **Create Lifelong Learning Accounts for all New Jerseyans** and fund the accounts of low-wage workers, and encourage and provide mechanisms for employers to match funds for lifelong learning.
- b. Further **develop the State's Training Explorer** to help workers make informed decisions about lifelong learning and training.
- c. **Encourage all employers to invest in worker training, lifelong learning, and re-employment** and create financial incentives for small and medium-sized employers.



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

1. INVEST IN WORKERS: **Support lifelong learning and skill building** to make workers resilient to the changes technology will bring

- d. **Support innovation and skills collaboratives** and other ongoing initiatives to align New Jersey's education and workforce systems, and align individuals' education with their desired career pathways.
- e. Continue to **expand low-cost opportunities to access degree programs** (including access to community colleges), **career and technical education, and training, apprenticeships, and pre-apprenticeships.**



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

2. EMPOWER WORKERS: Innovate to safeguard, enforce, and deliver **worker rights and benefits**

- a. **Fund and create better enforcement mechanisms** to ensure employer compliance with workers rights and benefits laws. Integrate strategic enforcement mechanisms to proactively pursue violations using predictive analytics and publicize violations to serve as a deterrent.
- b. **Strengthen enforcement** of the State's existing laws on misclassification of workers.
- c. **Explore the creation of a Portable Benefits System** to provide more benefits to non-traditional workers.
- d. **Launch an employer education initiative** on the risks of algorithmic hiring tools to prevent discrimination and promote diversity in hiring, and explore the potential need to develop policy that would prohibit the use of discriminatory technology in hiring.



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

2. EMPOWER WORKERS: Innovate to safeguard, enforce, and deliver **worker rights and benefits**

- e. **Fix and modernize the NJDOL Unemployment Insurance website.**
- f. **Create new platforms** to make it easier for workers to obtain the benefits to which they are entitled.
- g. **Advance development of the New Jersey Career Network**, a virtual coaching program to help workers know their rights, develop new skills, and get back to work faster.
- h. **Develop integrated and transparent data systems** across agencies to promote better understanding of the labor market.
- i. Make it easier for businesses to start, maintain, and grow, and hire workers through the **creation of a “Business One Stop” website.**
- j. **Promote and protect workers' right to organize.**



SUMMARY OF STRATEGIES AND RECOMMENDATIONS

3. PROTECT WORKERS: Use new technology to **protect worker health and safety**

- a. **Launch the Future of Work Accelerator** to spur the creation of more innovative tools for safer work.
- b. **Empower NJDOL to become a 21st-century regulator** with better access to data and tools so the agency can better enforce worker safety laws.
- c. **Invest in entrepreneurial businesses and nonprofits** that promote worker safety.
- d. **Train public servants to use human-centered design practices** so that the government develops worker policies and solutions with the input of workers.

◎ **Summary of Recommendation**

◎ **About the Task Force**

◎ **Technologies Impacting Work**

◎ **Why Now?**

◎ **Your Future of Work**

◎ **How NJ is Already Responding**

◎ **Detailed Recommendations**



ABOUT THE FUTURE OF WORK TASK FORCE

Preparing for the uncertain future of work in New Jersey.



ABOUT THE FUTURE OF WORK TASK FORCE

The formation of the Task Force

EXECUTIVE ORDER NO. 41

WHEREAS, automation, big data, robotics, machine learning, artificial and collective intelligence, and other technological innovations are changing the nature of the global economy; and

WHEREAS, emerging technologies will significantly transform the availability and conditions of work; and

WHEREAS, these innovations will displace certain jobs in some sectors and create other jobs, leading to the growth of new employment opportunities; and

WHEREAS, while there is no consensus on the exact scope of job loss and job creation, it is clear that there will be significant disruptions to the State’s businesses and workers; and

WHEREAS, New Jersey must prepare for and understand how

technolc
conditic

1. There is hereby created the Future of Work Task Force (the “Task Force”) that will evaluate how technological advancements will shape the future of New Jersey’s economy and workforce.

Executive Order 41 (October 5th, 2018)
established the Future of Work Task Force and charged it with determining how technology would impact the state’s workforce, who would be impacted, how technology could be leveraged to improve worker conditions, and devise innovative and impactful strategies to prepare New Jersey for the future.



ABOUT THE FUTURE OF WORK TASK FORCE

The formation of the Task Force

Which technologies will impact work in New Jersey?

Which groups of residents will be most impacted by these shifts?

When might certain technological changes occur?

What can businesses, non-profits, labor organizations, and others do?

What can the State government do to shape the future of New Jersey's workforce?



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Beth Simone Noveck, Ph.D. - Task Force Chair**
Chief Innovation Officer, State of New Jersey
- **Guy Berger, Ph.D.**
Principal Economist, LinkedIn
- **Jay Bhatti**
Co-Founder, BrandProject
- **Marie Blistan**
Former President, New Jersey Education Association



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Donna Chiera**

President, American Federation of Teachers New Jersey

- **Alfa Melesse Demmellash**

CEO and Co-Founder, Rising Tide Capital

- **Adrienne Eaton, Ph.D.**

Dean of the School of Management and Labor Relations, Rutgers University

- **Alastair (Al) Fitzpayne**

Executive Director, Future of Work Initiative, Aspen Institute



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Ray Greaves**

Chairman and State Business Agent, Amalgamated Transit Union NJ State Council

- **Charles Hall**

President, RWDSU Local 108

- **Seth Harris***

Former Acting Secretary and Deputy Secretary, U.S. Department of Labor

- **Philip Jennings**

Former General Secretary, UNI Global Union

** Asterisk denotes that the Task Force Member resigned from the Task Force*



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Indy Johar**

Co-Founder and Executive Director, Project 00 and Dark Matter Laboratories

- **William T. Mullen**

President, New Jersey State Building & Construction Trades Council

- **Fred Potter**

Vice President At-Large, International Brotherhood of Teamsters

- **Shanel Robinson**

County Commissioners Director, Somerset County



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Carmen Rojas, Ph.D.**

Former Co-Founder & Chief Executive Officer, Workers Lab

- **Hetty Rosenstein**

Former New Jersey Director, Communications Workers of America

- **Matthew Taylor**

Former Chief Executive, RSA, UK

- **Jennifer Velez**

Former Commissioner, New Jersey Department of Human Services



ABOUT THE FUTURE OF WORK TASK FORCE

Original Task Force Members: an array of leaders and experts from academia, labor, business, and policy representing local, national, and global perspectives.

- **Charles Wowkanech**

President, New Jersey State AFL-CIO

- **Connie Yowell, Ph.D.**

Senior Vice Chancellor for Educational Innovation, Northeastern University



ABOUT THE FUTURE OF WORK TASK FORCE

Task Force Members: Ex Officio administration officials

- **Robert Asaro-Angelo**
Commissioner, Department of Labor and Workforce Development
- **Dennis Bone**
Chair, State Employment and Training Commission, Chair, Board of Trustees, Newark Alliance
- **Brian Bridges, Ph.D.**
Secretary of Higher Education
- **George Helmy**
Chief of Staff, Office of the Governor
- **Angelica Allen-McMillan, Ed.D**
Acting Commissioner, Department of Education
- **Zakiya Smith Ellis, Ed.D.**
Chief Policy Advisor, Office of the Governor
- **Tim Sullivan**
President and CEO, New Jersey Economic Development Authority
- **Carl Van Horn, Ph.D.**
Senior Advisor for Strategy and Planning, Office of the Governor, Distinguished Professor and Director, Heldrich Center for Workforce Development



ABOUT THE FUTURE OF WORK TASK FORCE

How we worked



The Task Force convened as a whole four times between September 2019 and September 2021 to explore and recommend implementable policies, platforms, and projects, and also held dozens of meetings with industry and subject matter experts.



ABOUT THE FUTURE OF WORK TASK FORCE

How we worked

PUBLIC ENGAGEMENT

Conducted a public engagement which asked more than 4,000 workers for their views on the greatest impact of technology on the future of work.

<https://smarter.nj.gov/fow>

ALL OUR IDEAS

Cast Votes View Results About this page

What is your greater concern about the impact of technology on worker rights and benefits?

There are not sufficient penalties for employers who illegally misclassify workers as independent contractors.

Failure to expunge false convictions from databases can lead to people being denied jobs.

I can't decide

6687 votes on 60 ideas

Add your own concern here (Character limit 140 characters)...



ABOUT THE FUTURE OF WORK TASK FORCE

How we worked

English

Why do you use automated hiring tools? Check all that apply.

- ☐ Cost savings
- ☐ Time savings
- ☐ Advancing applicants w
- ☐ Advancing more diverse
- ☐ Reducing bias
- ☐ Facilitating social distan

English

Does your business/organization use technology to help with decision making in screening, interviewing, or assessing job applicants (for example, automated hiring tools that analyze video interviews or written applications, or software that compares applicants to current employees)?

☐ Yes

☐ No

☐ Don't know

INDUSTRY SURVEY

Surveyed more than 1,400 industry representatives on their uses of emerging technology in the workplace and in hiring and recruitment.



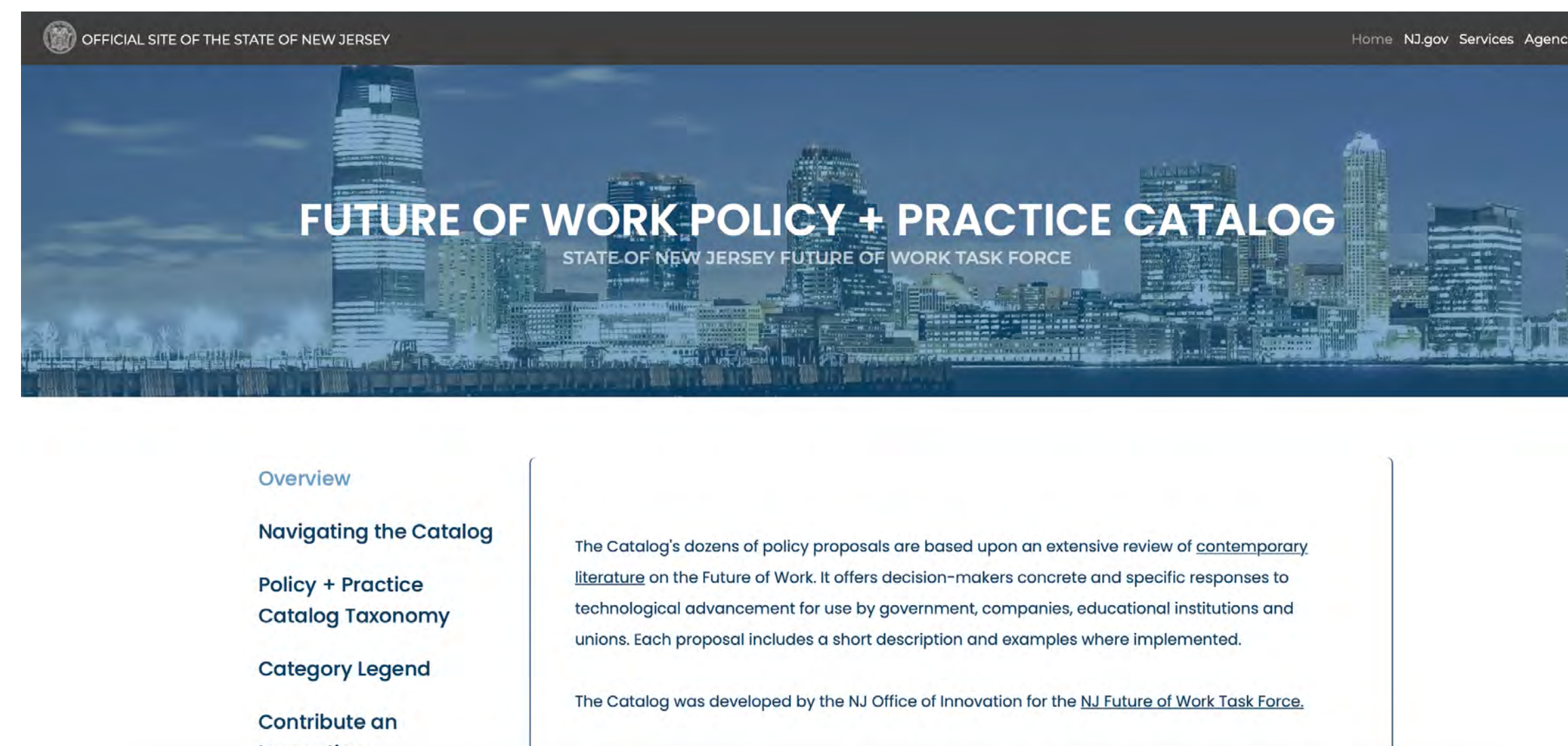
ABOUT THE FUTURE OF WORK TASK FORCE

How we worked

THE POLICY + PRACTICE CATALOG

We reviewed and shared dozens of contemporary reports, articles, and policies on the future of work to get smarter about how to create a more agile and resilient workforce, and spur the creation of good jobs.

<https://fow.innovation.nj.gov>





ABOUT THE FUTURE OF WORK TASK FORCE

How we worked

A New Jersey Big Data Workforce Roadmap: An Examination of the Challenges and Opportunities for New Jersey to Successfully Compete in the 21st Century Economy

New Jersey Big Data Alliance

In this paper, the research team from the New Jersey Big Data Alliance examined advanced analytics technologies—skill sets, data, and work in New Jersey—and the types of changes on key industry evidence-based roadmap for labor and industry to compete in the 21st century. The report details the demand for machine and deep learning, in biotech to advanced manufacturing. The authors focus on the questions, wrangle relevant data, and communicate insights. Thus, the writing of this report is crucial to the recommendations.

The Impact of Artificial Intelligence on the Workforce and the Manufacturing Sector as a Case Study

Jessica Paolini, Riccio
Rutgers University Foundation

The authors focus on the composite (3D) assessment enabled computing of agreement that these there is less certainty workforce point to four major effects: 1) loss and displacement of traditional unskilled production jobs; 2) a supply gap for more skilled, entry-level workers with IT skills and interests; 3) potential increase in salaries and career opportunities for up-skilled current workers and new entrants into SM jobs; and 4) improvements in the quality of work in New Jersey manufacturing. The importance of “hybridized jobs” that blend skills from different domains leads to six recommendations: 1) Universities should create hybridized training and education programs in advanced manufacturing; 2) Employers should provide incentives for lifelong learning through a variety of mechanisms, including facilitating credentialing instead of degrees; 3) Companies should invest in the use of new technologies, like online simulations and virtual reality, to train workers; 4) The State and trade industry groups should conduct outreach programs, starting as early as middle school, that illustrate manufacturing

ORIGINAL AND COMMISSIONED RESEARCH

Your Future of Work: What the New Jersey Future of Work Task Force learned from 4,000 workers in the Garden State

Dane Gambrell

New Jersey Future of Work Task Force

The Future of Work Task Force, charged with understanding how coming changes in technology will impact New Jerseyans at work, is responsible for producing a comprehensive policy roadmap to prepare Garden State workers and businesses. In order to better understand the issues facing workers and businesses, the Task Force created a digital public engagement campaign, entitled “Your Future of Work,” asking the public to share their greatest concerns with regard to the impact of new technology on three policy areas: lifelong learning and skills, rights and benefits for workers, and workplace health and safety. This memo summarizes the findings from that engagement and identifies potential policy, legislative, and technological solutions that the Task Force is exploring in response.

Download the Report

Apprenticeship Training and the Future of Work in New Jersey: Targeting Occupations that will Thrive with Emerging Technologies

David M. Forster

Policymakers should target occupations that have high growth from the federal Registered Apprenticeship System (RAPIDS) and Frey and Brynjolfsson’s “Future of Work” report. The rapid change risk for detailed analysis of New Jersey’s workforce in the least secure occupation risk and low growth job in the state’s economy, may face the prospect of broader growth in this report is that workforce in the “traditional” trades to and the risks of automation, particularly electricians and plumbers, and can avoid the risks of apprenticeships to non-traditional trades by scaling up or neglect the traditional

Background Checking and the Future of Work in New Jersey

The rapid increase in data collection and storage on the rise in criminal background in Public Records alone claims that criminal records, covering 90% of government agencies and background checking routinely and criminal charges that result in a conviction, New Jersey police made a decision to process 733,201 State Courts, 2019), over one million in New Jersey, most of which are at large. As a result of the

widespread availability of bad, incorrect, and incomplete data, applicants face significant barriers to employment. In an in-depth study of criminal history information, background checks, and expungement processes for 98 New Jersey residents using both qualitative and quantitative approaches, the author uncovers the tremendous difficulties people encounter trying to get or keep jobs in the face of these data quality problems. This is especially problematic given the disproportionate representation of non-white people in the criminal justice system. To combat the problems, the author recommends three policy prescriptions to improve data quality: 1) Make access to one’s own criminal record

COMMISSIONED RESEARCH FROM LEADING SCHOLARS

The Task Force commissioned original research to better understand how technological changes will impact hiring, economic growth, skills demand, and the state’s green economy.

<https://fowtf.innovation.nj.gov/resources.html>

Summary of
Recommendations

About the Task Force

Technologies
Impacting Work

Why Now?

Your Future of Work

How NJ is Already
Responding

Detailed
Recommendations

◎ **Summary of Recommendation**

◎ **About the Task Force**

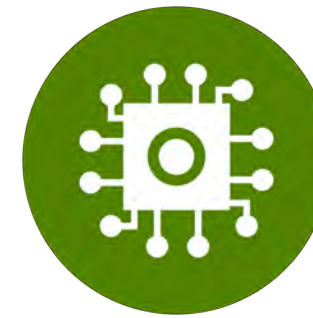
◎ **Technologies and Their Impact**

◎ **Why Now?**

◎ **Your Future of Work**

◎ **How NJ is Already Responding**

◎ **Detailed Recommendations**



TECHNOLOGIES AND THEIR IMPACT

Several core technologies and innovations are changing how we work, where we work, the conditions we work under, and what we do - they include:

- The Internet
- Automation and robotics
- Big data, artificial intelligence, and machine learning

These and other technologies will create new jobs, replace other jobs, and transform all jobs.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: The Internet

DEFINITION: the Internet is a network of computers and other devices that allows us to rapidly and seamlessly transmit data and media around the world.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: The Internet

The Internet is transforming how we work, where we work, when we work, who can work, what we work on, and the skills needed to succeed. Web-based tools for communication and remote work are giving workers more flexibility in their working arrangements, and online platforms and mobile apps are providing opportunities for workers to organize and advocate for their rights.

At the same time, the Internet is also creating new opportunities for new companies and innovations, as well as for workers with expertise in building and using new technology.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: The Internet

OPPORTUNITIES

- New Jersey has 342,795 tech workers, and nearly 16,000 technology businesses. Tech-related workers are now 8% of the state's workforce.
- Tech workers are among the highest paid, with average wages in the tech industry nearly double that of the statewide average.
- Software is expected to be the 5th fastest growing job category in the state.
- The innovation economy's multiplier effect: up to five additional jobs are created by each job in the innovation economy.
- Due to COVID-19, important state industries such as healthcare, retail, and finance shifted to working remotely. This Internet-based work may be safer for many.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: The Internet

CHALLENGES

- COVID-19 has accelerated the shift to a digital economy, but not all workers are prepared for the shift to web-based business models.
- Online work may blur the line between working and non-working hours, and impinge on quality of life.
- Those that lack access to the Internet and computers, and lack basic digital literacy skills face a significant disadvantage.
- The transition to remote work, facilitated by the Internet, creates new challenges for parents and caregivers.
- Online work creates a divide between remote and front-line workers.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: The Internet

Login: [Providers](#) | [Facilities](#)



HOME [CEO MESSAGE](#) [ABOUT](#) [SOLUTIONS](#) [CAREERS](#) [CONTACT US](#) [Q](#)



About Us

Forefront Telecare is a recognized national leader of Virtual Behavioral Health for Seniors across America.

If a Senior has Medicare, Medicare Advantage or Medicaid and begins in a Hospital then moves to a Long Term Care Facility, including Skilled Nursing Homes or Assisted Living, or can return home for Home Health – Forefront will follow the senior patient.

We produce superior outcomes with the same care and human connection for the patient and the facilities we serve.

Business Spotlight

Forefront Telecare Inc. (Hamilton Township)

- Founded in 2010, Forefront offers behavioral health services targeted to healthcare providers (such as hospitals or long-term care facilities) who serve seniors and people living in rural areas, who often struggle to access behavioral health services.
- The telehealth platform connects healthcare providers with a “network of psychiatrists, psychiatric nurse practitioners, and other behavioral health professionals.”



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics

DEFINITION: “Automation fundamentally exists to substitute work activities undertaken by human labor with work done by machines, with the aim of increasing quality and quantity of output at a reduced unit cost.”

- Brookings Institution, Automation and Artificial Intelligence 2019



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics

OPPORTUNITIES

- Automation and robotics are changing what we do in the workplace, the number of workers needed, and the scale of what we can produce.
- Making work easier and potentially safer, robots can replace humans doing dangerous or repetitive tasks.
- Automation and robotics can complement work done by humans, making people more productive.
- Automation and robotics will create new categories of as-yet unimagined jobs.
- For sectors like research and development, renewable energy, and manufacturing, for example, automation and robotics have the potential to reduce costs and accelerate innovation.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics

CHALLENGES

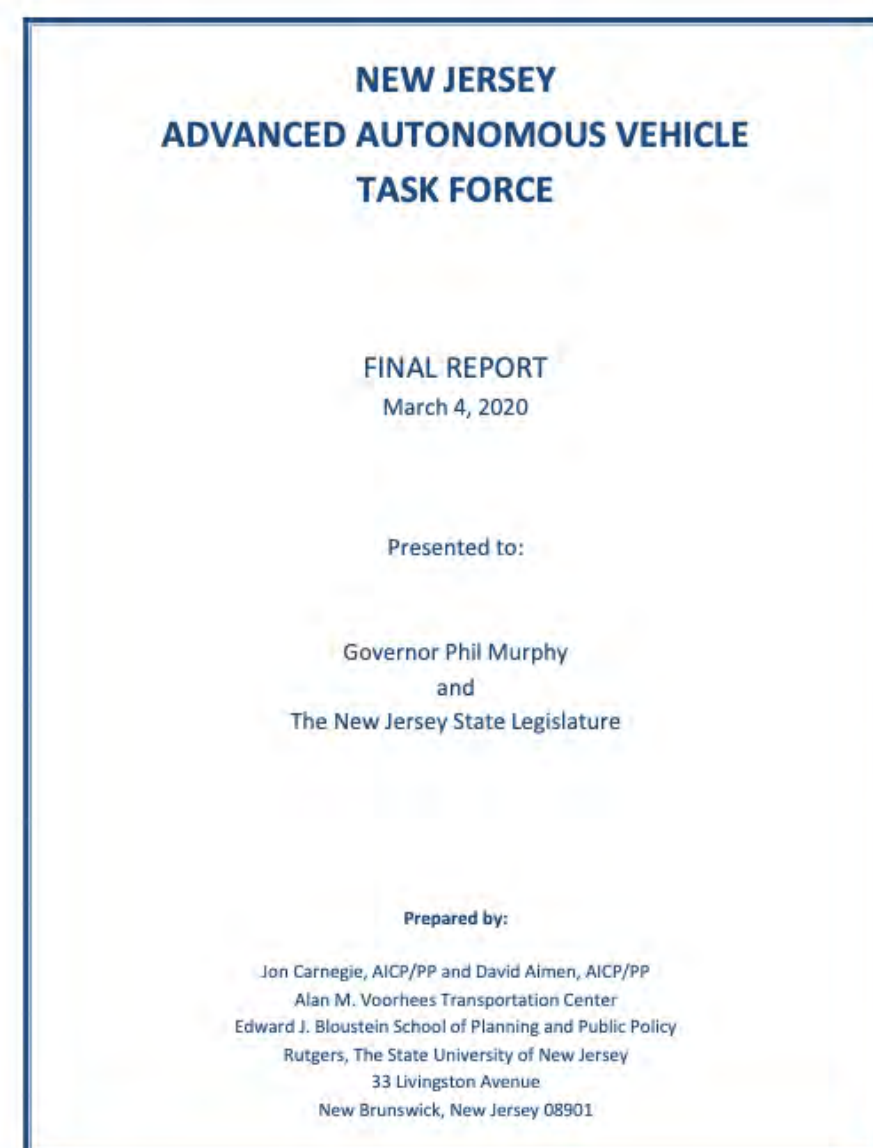
- While automation allows work to be done more efficiently, it also changes how tasks are done, potentially resulting in the displacement of workers whose roles have been automated.
- Automation will affect some occupations and industries more than others. Most at risk from automation are middle-skill, “routine” jobs that are easiest to automate.
- Workers in low-wage jobs that require less education are expected to be those most impacted by automation.
- Automation will shift which skills are in and out of demand, leading to challenges reskilling and upskilling workers for new types of jobs.
- If increased productivity brought by automation does not translate into higher wages, these technologies may contribute to greater income inequality.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics

The New Jersey Advanced Autonomous Vehicle Task Force acknowledged the mid- and long-term impacts of Highly Autonomous Vehicles (HAVs) on the workforce, noting:



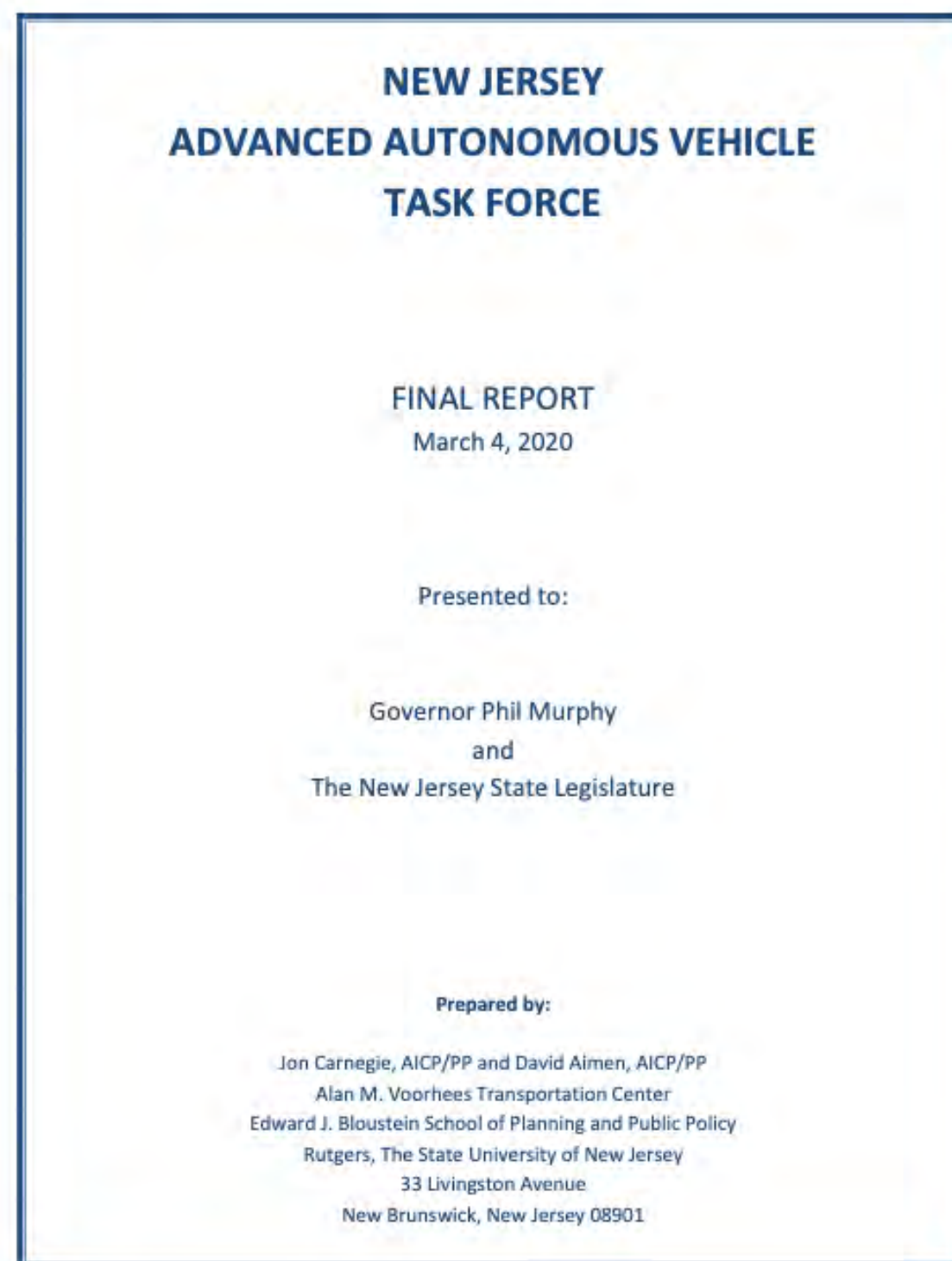
“*The transition to HAVs may result in a variety of impacts to today’s workforce. New jobs may emerge while others may need to adapt or could possibly be eliminated. There will most likely also be a significant need for training and retraining in a range of professions and job categories...Several studies identify the occupations most at risk as ‘primary drivers’ of trucks, taxi cabs and buses and ‘other on-the-road’ occupations.*”

”



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics



Regarding worker safety, the report also notes that:

“

AVs have the potential to significantly reduce crashes, reduce injuries, and save lives.

”



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Automation and robotics



Business Spotlight

Apprentice (Jersey City)

- Founded in 2014, Apprentice's technology helps pharma manufacturers get medicine to patients faster. The company has an intelligent cloud platform that integrates augmented reality, voice recognition, and artificial intelligence into wearable, mobile, and desktop devices to offer a virtual collaboration application, and a robust manufacturing and lab execution system that reduces human error and inefficiency in the drug production process.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Big data, artificial intelligence, and machine learning

DEFINITION: Technologies that rapidly process, learn from, and take action on data, including:

- **Big Data** refers to extremely large data sets that are too big to be stored or processed using traditional means.
- **Artificial intelligence (AI)** refers to the many different technologies that enable machines to learn and act with human-like levels of intelligence.
- **Machine learning** (a subset of artificial intelligence) uses algorithms to find and apply patterns in data to make processes more autonomous, efficient, and effective.
- **Predictive analytics** use algorithms that analyze large amounts of data in order to predict future behaviors and events.
- **Natural language processing (NLP)** is a subfield of artificial intelligence that is used for making sense of large quantities of text or images and creates ways to manage large quantities of information.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Big data, artificial intelligence, and machine learning

OPPORTUNITIES

- The technologies of big data, including artificial intelligence, machine learning, predictive analytics, and natural language processing are rapidly changing the pace at which innovations occur.
- These tools can make work more efficient, boost profits, and enable new kinds of data-driven businesses.
- Being able to analyze data about everything from health and wellness to phone and purchase records leads to new kinds of products, services, and jobs.
- Workers routinely interact with systems that track data about their location, hours, efficiency and productivity, and working conditions. This data can make it possible to forecast workplace accidents, to predict non-compliance with labor regulations, and to target scarce enforcement resources more effectively,



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Big data, artificial intelligence, and machine learning

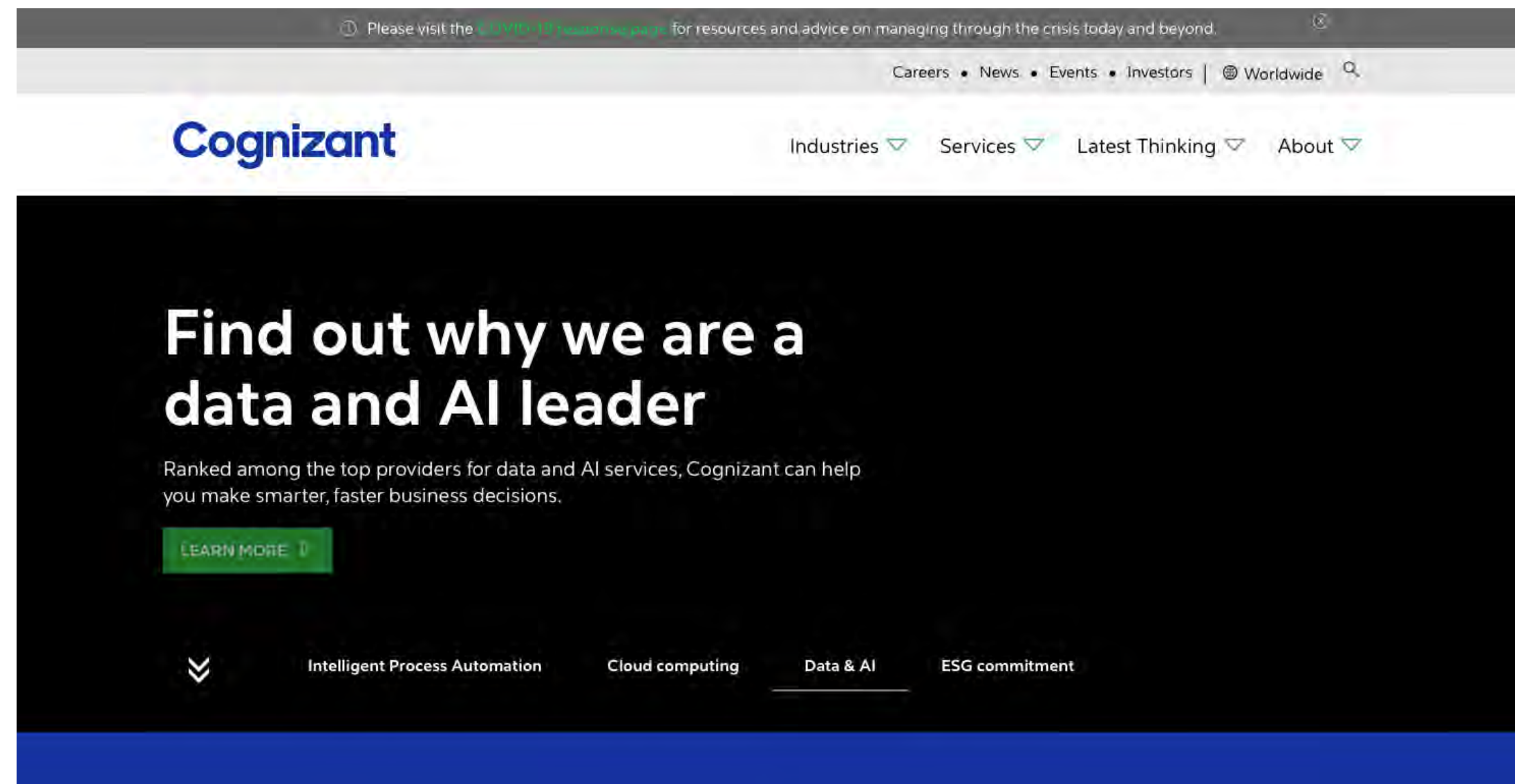
CHALLENGES

- As with automation, the technologies of big data risk displacing some workers and giving rise to unemployment as a result of job transformation.
- Massive data collection and analysis raises privacy and surveillance concerns for workers and consumers.
- Algorithms, especially when used in hiring, can amplify biases that are present in the training data that they use to model behavior and make predictions.
- Demand for data-driven skills is creating a skills gap in the labor market.
- Lack of transparency with proprietary machine learning and predictive analytics algorithms can lead to bad, and even dangerous, products and services.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Big data, artificial intelligence, and machine learning



Business Spotlight

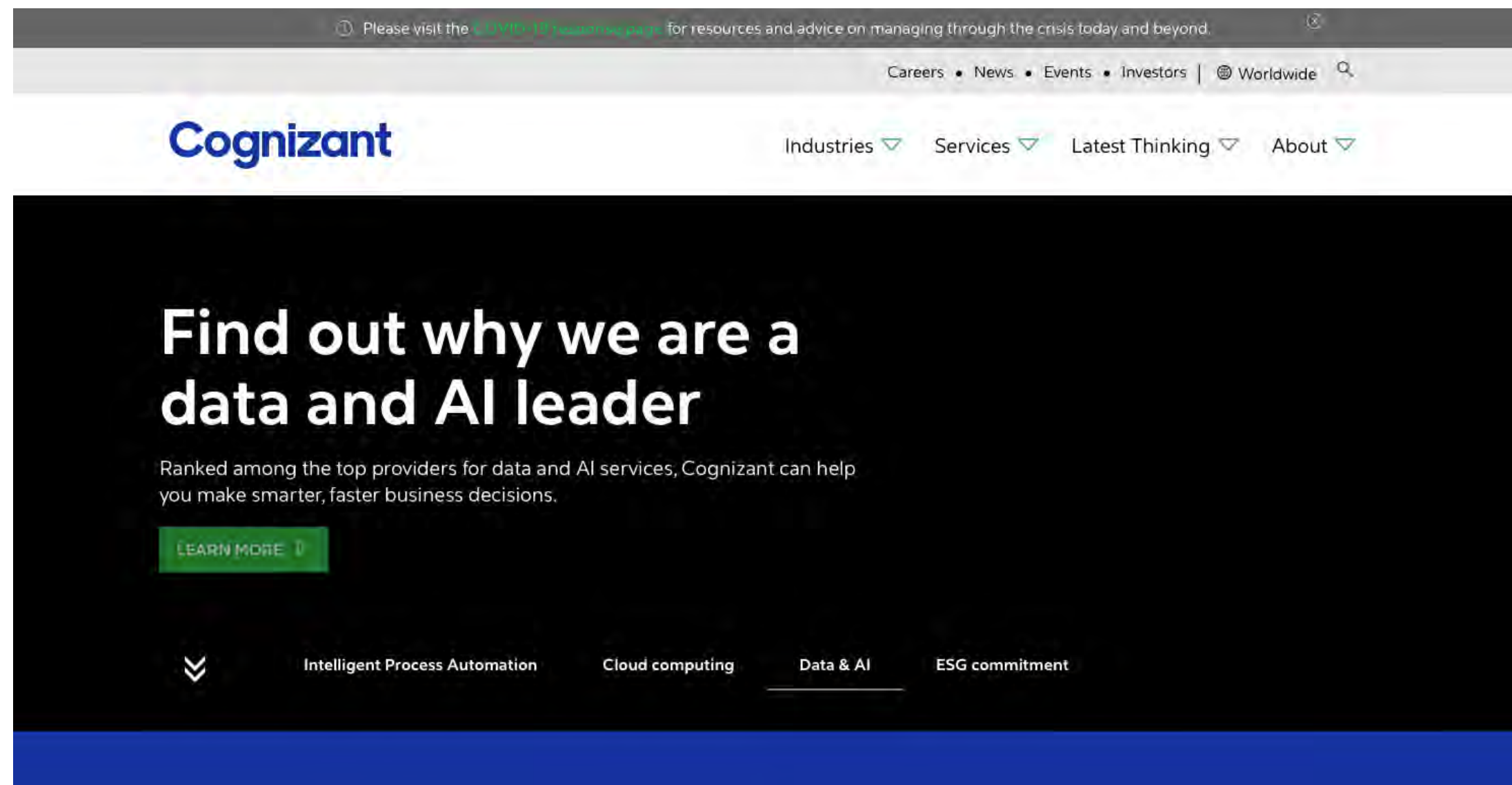
Cognizant (Teaneck)

- Founded in 1994, Cognizant offers a wide range of artificial intelligence and data analytics products and services to customers in industries such as consumer goods, finance, and life sciences. According to the company's website, past use cases for its services include:
 - Banks, who have used artificial intelligence products to detect fraud in check transactions.



TECHNOLOGIES AND THEIR IMPACT

Core technologies impacting work: Big data, artificial intelligence, and machine learning



Business Spotlight

Cognizant (Teaneck)

(con't)

- Life science researchers and hospitals, who have used machine learning to improve the accuracy and consistency of breast cancer diagnoses in tissue samples.
- A financial services provider, who used AI to analyze a large dataset of monthly credit card account data to predict which customers were likely to not pay their credit card bills.



TECHNOLOGIES AND THEIR IMPACT

Key insights: increasing demand for rapidly changing skills

The jobs of the future will require a rapidly changing set of skills, many of which are not currently being taught in existing education and training programs. This trend will require investments in accessible, effective upskilling opportunities that are flexible enough to adapt to future changes in skills demand.



TECHNOLOGIES AND THEIR IMPACT

Key insights: creating opportunity for worker empowerment

Technology can enable greater flexibility, autonomy, safety, and worker voice. Online platforms can give workers more control over how, when, where, and with whom they work. Workers can use online platforms and mobile apps to organize and advocate for their rights.



TECHNOLOGIES AND THEIR IMPACT

Key insights: accelerating the loss of privacy

Technology can also facilitate increased surveillance of workers and a loss of privacy. When used to track productivity and monitor workers' behavior, the same data and analytics that are used to improve efficiency and make work safer can become tools of surveillance that pose a risk to workers' privacy and health.



TECHNOLOGIES AND THEIR IMPACT

Key insights: technology may accelerate negative trends

Ongoing labor market shifts have the potential to be accelerated by technology, including negative trends such as rising inequality, stagnant wages and benefits, and the proliferation of precarious and uncertain employment relationships.



TECHNOLOGIES AND THEIR IMPACT

Key insights: technology's impact on the future of work is uncertain

By some accounts, almost half of all jobs in the U.S. economy could be made obsolete. Others have described how intelligent machines will actually create jobs — including entirely new categories of jobs.

There are differing visions for how this will play out:

“Man and machine will wage a Darwinian struggle that machines will win.”

or

“Intelligent machines will take on even more work, but the result will be unprecedented wealth.”

- *Mark Knickrehm, Harvard Business Review*

- ◎ **Summary of Recommendations**
- ◎ **About the Task Force**
- ◎ **Technologies Impacting Work**
- ◎ **Why Now?**
- ◎ **Your Future of Work**
- ◎ **How NJ is Already Responding**
- ◎ **Detailed Recommendations**



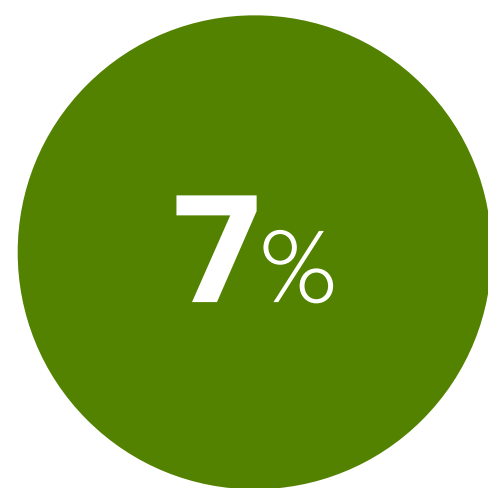
THE FUTURE OF WORK: WHY NOW?

We face a resilient, but unequal labor market in New Jersey as well as chronic and acute challenges across the rapidly changing landscape of our economic system - all will impact workers.



THE FUTURE OF WORK: WHY NOW?

A resilient but unequal labor market in New Jersey



NJ UNEMPLOYMENT RATE

(November 2021)

As we recover from the pandemic, New Jersey still has one of the highest unemployment rates (third highest) in the nation with an unemployment rate of 7.0%. While New Jersey's unemployment rate is in line with its Northeastern peer states, the state's rate is still more than double the rate in 2019 and higher than the national average of 4.6% (November 2021).



THE FUTURE OF WORK: WHY NOW?

A resilient but unequal labor market in New Jersey

- In 2020, Black New Jerseyans averaged 21% of unemployment claims despite being 15% of the state workforce.
- Hispanic New Jerseyans filed 24.2% of unemployment claims on average during 2020 despite comprising just 20.2% of the state workforce.
- In 2020, just 29% of New Jersey's workforce had a highest education level of high school or less. However, those workers accounted for 39% of unemployment claims on average.



THE FUTURE OF WORK: WHY NOW?

A resilient but unequal labor market in New Jersey

- There are significant racial disparities in education and training debt in New Jersey, particularly in and around the state's urban centers.
- New Jersey has the largest wage gap between Latina women and white men in terms of annual earnings.



THE FUTURE OF WORK: WHY NOW?

A resilient but unequal labor market in New Jersey

- As of 2019, 36.6% of higher education degrees conferred in New Jersey are science and engineering degrees.
- 43.6% of New Jersey's labor force has earned at least a 4-year bachelor's degree.
- 5.2% of New Jersey's workforce is employed in science and engineering occupations, ranking 12th in the U.S.



THE FUTURE OF WORK: WHY NOW?

A resilient but unequal labor market in New Jersey

NJ’S LARGEST EMPLOYMENT SECTORS

1. Trade, Transportation, and Utilities	890,600 jobs
2. Education and Health Services	731,400 jobs
3. Professional and Business Services	687,600 jobs
4. Public Sector	605,700 jobs

(Feb 2020)



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth

New Jersey's industries offer strong opportunity for growth and advancement for both workers and the companies that employ them.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Healthcare

The healthcare industry has been the driving force of employment in New Jersey over the last two-plus decades and will continue to be a critical employment sector.

- The health care cluster contributed over \$44 billion to the Gross Domestic Product in 2019 for New Jersey, roughly 7.9% of all output.
- The outlook for health care employment is bright. From 2018 through 2028, it is projected that 64,860 jobs will be added in the Garden State, an annual increase of 1.2%.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Healthcare

- The healthcare industry has steadily gained employment over the last 29 years and will continue that trend through 2028.
- The industry does have disparities: while home health aides are among the highest growing profession in the healthcare sector (projected to add 20,950 job openings between 2016 and 2026), their average salary in 2018 was just \$24,500, far lower than the average salaries of registered nurses (\$82,800) and Licensed Practical and Licensed Vocational Nurses (\$56,300).

New Jersey's Health Care Industry Cluster

Prepared by:
New Jersey Department of Labor & Workforce Development
Office of Research & Information
Bureau of Labor Market Information
Winter 2020-2021



Office of
Research and
Information



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Offshore wind and clean energy

NEW JERSEY JOB SECTOR TOPLINES

- Energy Efficiency – **33,815 jobs**
- Renewable Energy – **11,900 jobs**
- Solar Energy – **8,818 jobs**
- Energy Storage – **965 jobs**
- Clean Vehicles – **3,670 jobs**
- Wind Energy – **640 jobs**
- Grid Modernization – **1,148 jobs**
- ALL Clean Energy Sectors – **51,852 jobs**

Image Source: Solar Jobs Census 2019, Published by the Solar Foundation (now IREC)

The goal of generating 7.5 GW of electricity from offshore wind energy by 2035 as part of the transition to 100% clean energy by 2050 could generate up to 8,000 jobs.

- In 2019, New Jersey ranked ninth in the U.S. for renewable energy employment with an estimated 52,000 jobs.
- New Jersey is one of the top 13 wind-related manufacturers in the U.S. with 12 manufacturing facilities.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:
Offshore wind and clean energy

Prior to the pandemic, Wind Turbine Service Technician was the fastest growing occupation in the U.S. with a projected growth rate of 61% over the next decade; it is still one of the fastest growing occupations.

OCCUPATION	GROWTH RATE, 2019-29	2020 MEDIAN PAY
Wind turbine service technicians	61%	\$56,230 per year
Nurse practitioners	52%	\$111,680 per year
Solar photovoltaic installers	51%	\$46,470 per year
Occupational therapy assistants	35%	\$62,940 per year
Statisticians	35%	\$92,270 per year
Home health and personal care aides	34%	\$27,080 per year

Image Source: Bureau of Labor Statistics, Fastest Growing Occupations, 2019



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Offshore wind and clean energy

- Solar Photovoltaic Installer is projected to be the third fastest growing occupation in the U.S. between 2019-2029, with a growth rate of 51%.
- At the end of 2019, New Jersey ranked seventh among the states in installed solar photovoltaic (PV) capacity, seventh in net generation from all solar PV, and third in generation at small-scale solar facilities.



Image Source: Solar Jobs Census 2019, Published by the Solar Foundation (now IREC)



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Life Sciences



New Jersey hosts top research universities advancing the field of life science research, along with more than 2,200 life science companies.

- The State is investing in the growth of the life science sector through a tax credit for investors in emerging life science or technology businesses, as well as a program that allows tech or biotech companies to turn net operating losses and R&D tax credits into capital.
- Growth in this sector can fuel job growth in medical practices and research roles. New Jersey is home to more than 30,000 active physicians, more than 200,000 scientists and engineers, and more than 5,000 biochemists and biophysicists.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Financial and professional services

Financial services, legal services, consulting, and other services comprise a large part of the state's economy.

- Financial, legal, consulting, and other services have grown by 14% since 2013.
- The state is home to more than 26,600 finance and professional service firms, more than 800 of which have more than 500 employees.





THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Transportation and logistics



Image Source: Wikipedia Creative Commons –
North Jersey Coast Line

The state's central location in the northeastern corridor makes New Jersey a natural hub for rail, road, air, and sea transport.

- The transportation and logistics sector contributes nearly 200,000 private sector jobs and \$23 billion in GDP to New Jersey's economy.
- New Jersey has continued to invest in its transportation and logistics infrastructure. The state is home to the second densest rail and road network in the U.S., five foreign trade zones (FTZ), the busiest port on the east coast, and the busiest airport system in the country.
- Investment in transportation and logistics will contribute to job growth in tech work, including engineering, software, and application development roles.



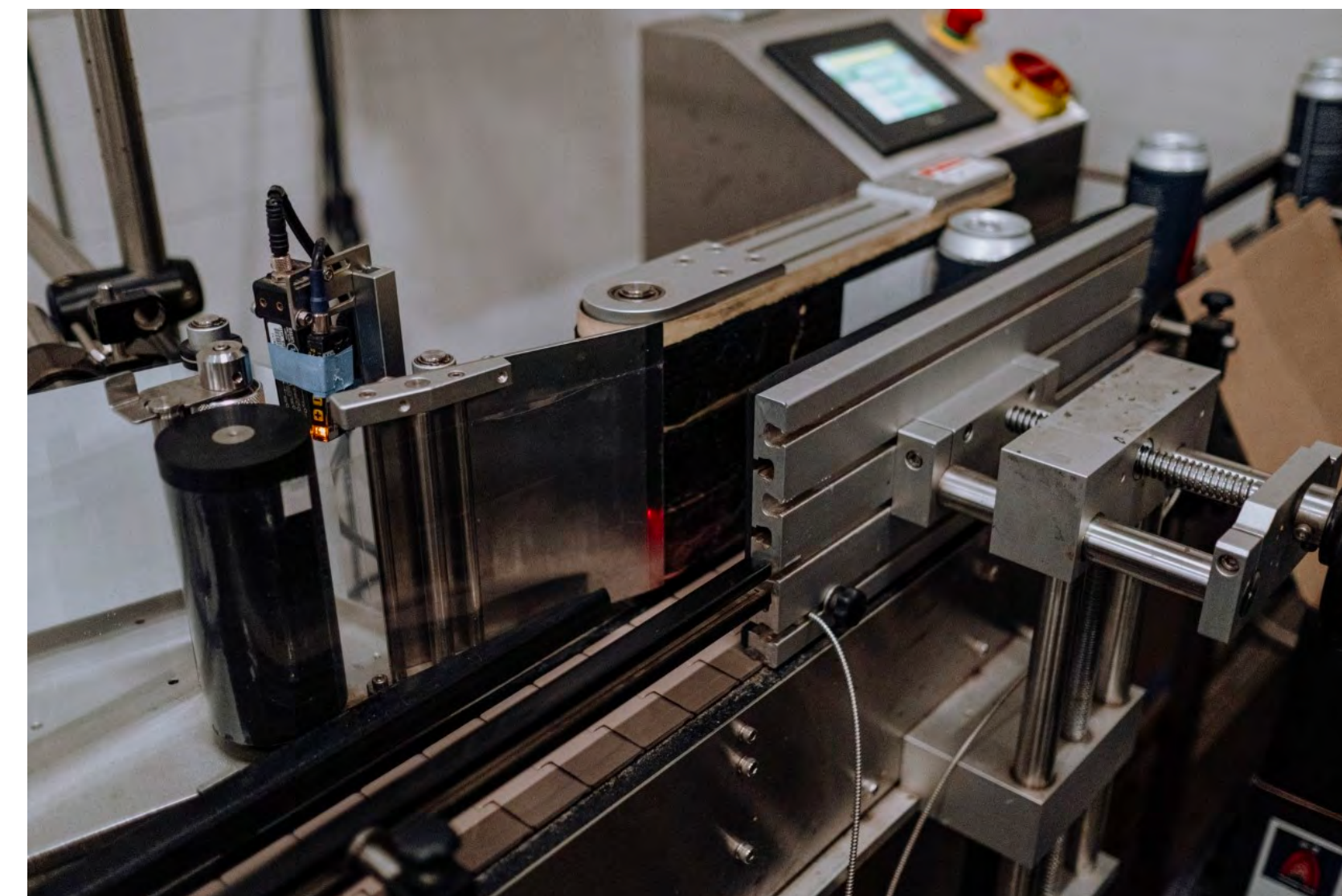
THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Advanced manufacturing

More than \$14 billion of the state's total wages were earned by workers in the manufacturing sector.

- In 2019, New Jersey's manufacturing sector employed more than 250,000 workers and contributed roughly \$50.5 billion to the state's economy.





THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Advanced manufacturing

Pilot project 1:
Manufacturing Resource Guide

Goal

- Create a document that contains information and key points of contact pertinent to manufacturers
- Add informational depth and ease of use to NJ MEP's existing Education Resource Guide

Plan

- Coordinate social media to highlight MEP resource guide
- Fund staff to research and add new information to resource guide
- Develop process for maintaining and adding new information on consistent basis

Status

- ✓ Secured \$15,000 of EDA funding
- ✓ Planning social media campaign

- NJEDA has developed three programs to aid the growth of the advanced manufacturing sector. These include:
 - A Manufacturing Resource Guide Pilot to connect manufacturers with educational and training resources;
 - A Marketing and Outreach Pilot to introduce students, parents, and teachers to the benefits of a career in advanced manufacturing; and
 - An Apprenticeships Pilot to expand registered apprenticeship opportunities in advanced manufacturing.

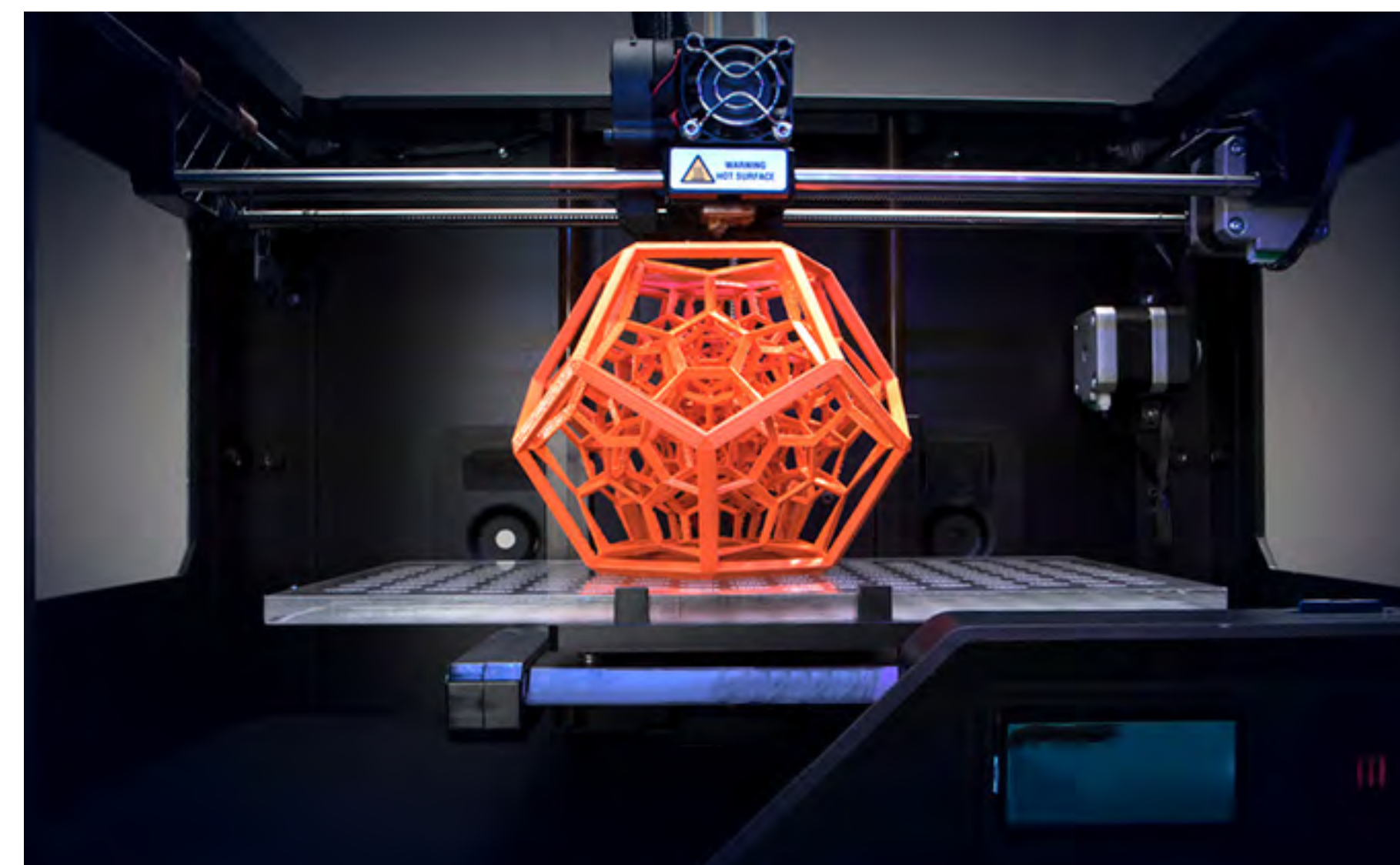


THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Advanced manufacturing

- The advanced manufacturing sector can grow job opportunities in roles related to craft/skilled work, precision fabrication and production, process development and optimization, engineering and design, operations research, and production management.





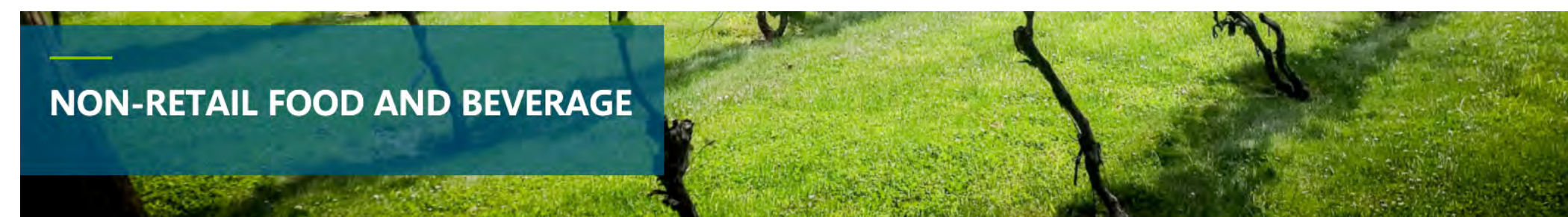
THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Non-retail food and beverage

New Jersey is home to the second-largest pool of food scientists and technologists in the country.

- More than 250,000 workers are currently employed in New Jersey's non-retail food and beverage industry, and that number is projected to grow by 15% over the next decade.



WHY NJ FOR NON-RETAIL FOOD AND BEVERAGE



WORLD-CLASS LOCATION
AND INFRASTRUCTURE
ASSETS



ROBUST FOOD AND
BEVERAGE ECOSYSTEM



LARGE AND GROWING
TALENT POOL



A PLACE FOR EVERY
EMPLOYEE

All this at a fraction of the cost of
New York and Philadelphia – and
just a short train ride away



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Non-retail food and beverage

- The state is home to the Rutgers Food Innovation Center (FIC), a business incubation and economic development accelerator program, which provides business and technology expertise to food and agriculture businesses in New Jersey and the surrounding region. The FIC includes a 31,000 sq. ft. facility as well as a 46,000 sq. ft. Agricultural Experiment Station.



Image Source: Rutgers University



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Non-retail food and beverage



- The growth of this sector can fuel job growth in food and beverage manufacturing and distribution, including jobs in agriculture (farm, animal, and seafood production), processed and packaged food production, and logistics and supply chains.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Sports wagering

Legalized sports wagering makes New Jersey a leading state for a growing industry.

- Sports wagering provides a source of revenue for the state's casino industry and also creates opportunities for related jobs, such as data analytics for odds calculations, web development of online wagering platforms, and regulatory compliance.



\$996
million

More than \$996 million in sports wagers were placed in the State in December of 2020, setting a national record.



THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Cannabis



New Jersey
@NJGov

Today, @GovMurphy signed historic legislation to:

- ✓ Legalize adult-use cannabis
- ✓ Decriminalize marijuana possession in small amounts
- ✓ Limit the use of previous marijuana convictions
- ✓ Create a regulated cannabis marketplace

nj.gov/governor/news/...



Legalization of the industry is leading to new job opportunities for workers and entrepreneurs.

- In February of 2021, Governor Murphy signed legislation legalizing and regulating recreational cannabis use and possession for adults 21 years and older.
- This new market will bring new economic opportunities in retail, agriculture, and life sciences research and development.



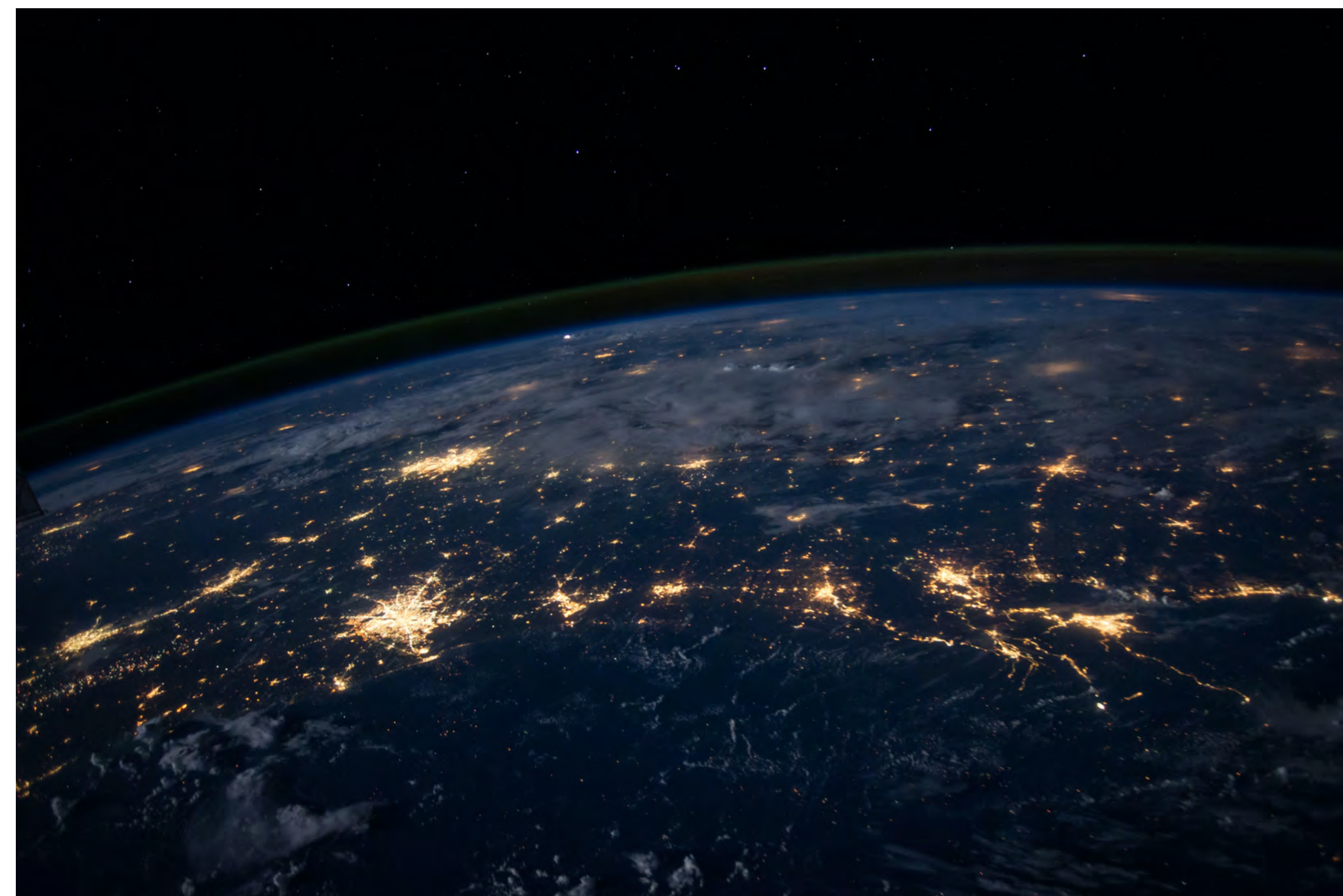
THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Innovation and high tech

New Jersey is emerging as a hotspot for software and technology development.

- More than 10,000 technology companies are located in New Jersey, with a key focus in several subsections of the technology industry, including: cyber security, big data, communications, digital health, fintech, and artificial intelligence.





THE FUTURE OF WORK: WHY NOW?

Innovative technology and policy create new markets and job growth:

Innovation and high tech



Image Source: Rutgers University

- The state is home to 63 universities and has the highest concentration of scientists and engineers in the nation, offering ready access to a diverse, highly-skilled technology workforce.
- New Jersey has created a \$500 million State-led venture fund to support innovation by investing in startups based in the state, an Angel Investor Tax Credit Program to support the state's emerging technology businesses, and added a Small Business Services unit to NJEDA to provide tax assistance, financing, and other services to support the state's micro and small businesses.



THE FUTURE OF WORK: WHY NOW?

What we face

New Jersey's resilient economy and technological advancements offer opportunity for workers and entrepreneurs, but there are also significant challenges that we face - as a society, and as a government.



THE FUTURE OF WORK: WHY NOW?

What we face

Disruptions to industry and to workers caused by the pandemic - such as a reduced workforce, the need for physical distancing, risks to health and safety, especially for the most vulnerable workers, supply chain disruption, and remote work coupled with the new business models, a fissured workplace and workforce, and increased outsourcing are impacting the quality of work.

These changes further accelerate the adoption of technologies used for automation, health and safety monitoring, tracking and tracing, as well as cloud-based technologies for working from home.



THE FUTURE OF WORK: WHY NOW?

What we face

The rapid rise of automation and other new technologies transforming work is happening against the backdrop of other challenges, including stagnant wages, proliferation of part-time and other forms of work that offer fewer protections and benefits, declining unionization, rampant inequality, and declining life expectancy.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Ensuring access to quality jobs

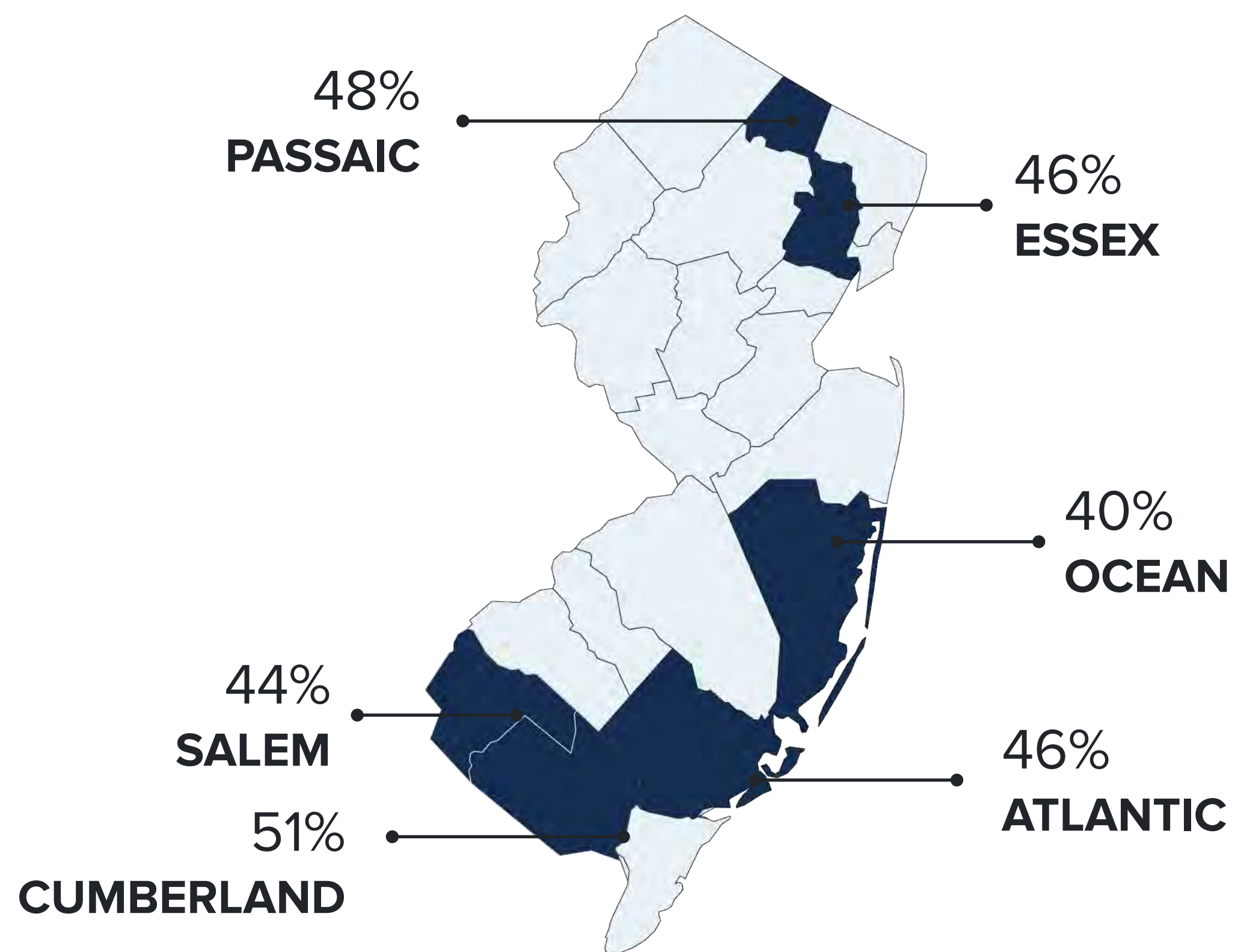
The Aspen Institute describes a “quality job” as a position where one’s work is **valued, respected**, and **meaningfully** contributes to the goals of the organization. It encompasses **having a voice** in one’s workplace and the opportunity to **shape one’s work life**, as well as having **accessible opportunities to learn and grow**.

However, changes to the labor market and some employer practices make it increasingly difficult to provide workers with a quality job.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Stagnant wages



Highest Rate of ALICE Households in NJ

Data Source: United for Alice, 2020 Alice Report, 2020

For most U.S. workers, real wages have barely budged in decades, and a growing portion of New Jersey workers are **Asset-Limited, Income-Constrained, and Employed (ALICE)**

- In New Jersey, the **share of ALICE households increased from 24% in 2010 to 27% in 2018** while the poverty rate remained steady.
- In New Jersey, **the elderly (over age 65) are the age group most likely to live in an ALICE household**, while young people (under age 25) are most likely to live in poverty.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Inequality

While the income of the United States' bottom half remains stagnant—taking a significant toll on public health by many measures—the average pretax income of the top tenth of Americans has doubled since 1980, and that of the top 0.001% has risen sevenfold.

While the median household income in New Jersey in 2019 was \$85,751 (higher than the national level of \$65,712), **10.0% of the state population still lives below the poverty line.**



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Inequality

Inequality is at historic high levels: **Gender Inequality**

The average female worker in New Jersey makes \$67,114 per year, compared to \$92,951 for the average male. Females age 25-34 make up the largest single demographic living in poverty in the state.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Inequality

Inequality is at historic high levels: **Racial Inequality**

- In New Jersey, Black and Brown families earn less and are **more likely to live in poverty compared to Asian and white residents.**
- **Hispanic residents make up 26.6%** of those living in poverty despite being only 18.6% of the population.
- **Black residents comprise 17.4%** of those living in poverty, but are only 12.8% of the population.
- More than 50% of Black and Hispanic households **live below the basic cost of living.**



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: The disparate impact of technology

The impact of technology will have a disproportionate impact based on race and gender.

- Black and Hispanic workers disproportionately occupy jobs whose tasks are susceptible to automation, in industries such as construction, agriculture, and transportation. According to the Brookings Institution, on average, 47% of tasks completed by Hispanic workers and 44% of tasks completed by Black workers are subject to automation, compared to 40% of tasks for White workers.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: The disparate impact of technology

The impact of technology will have a disproportionate impact based on race and gender.

- Men are more likely than women to work in industries such as production, transportation, and construction. On average 43% of tasks completed by men are subject to automation, compared to 40% for women. The Brookings Institution estimates that 23.7% of jobs held by men are at a potential high risk of automation, compared to 17% of jobs held by women.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: Declining unionization

The decline in unionization has largely been driven by the private sector. In New Jersey, the share of the private sector workforce represented by a union fell from 18.0% in 1989 to 9.2% in 2017.

While the share of New Jersey workers represented by a union is higher than the national average, there has been a steady decline in union membership nationwide in the last four decades. The national union coverage rate declined from 27.0% in 1979 to 11.6% in 2019. The Economic Policy Institute attributes this decline to corporate opposition to union organizing rather than a lack of interest in union membership among workers.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: A lack of training and upskilling

... and most workers see continuous training as essential or important to career success

% saying training/skills development throughout their work life will be ...



Image Source: Pew Research, The State of American Jobs, October 2016

Workers are not prepared for the jobs of tomorrow. Employers cannot find employees with the skills they need.

Both corporate and public spending on training programs have declined in the U.S. over the last 20 years. A 2016 Pew study found that 87% of workers believe it will be important or essential to get training and develop new skills throughout their work life to keep up with changes in the workplace.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: A lack of training and upskilling

Many older workers struggle to find long-term, full-time employment in careers related to their education. In New Jersey, which has one of the country's highest rates of long-term unemployment, roughly half of those who have been unemployed for more than a year are over the age of 45.

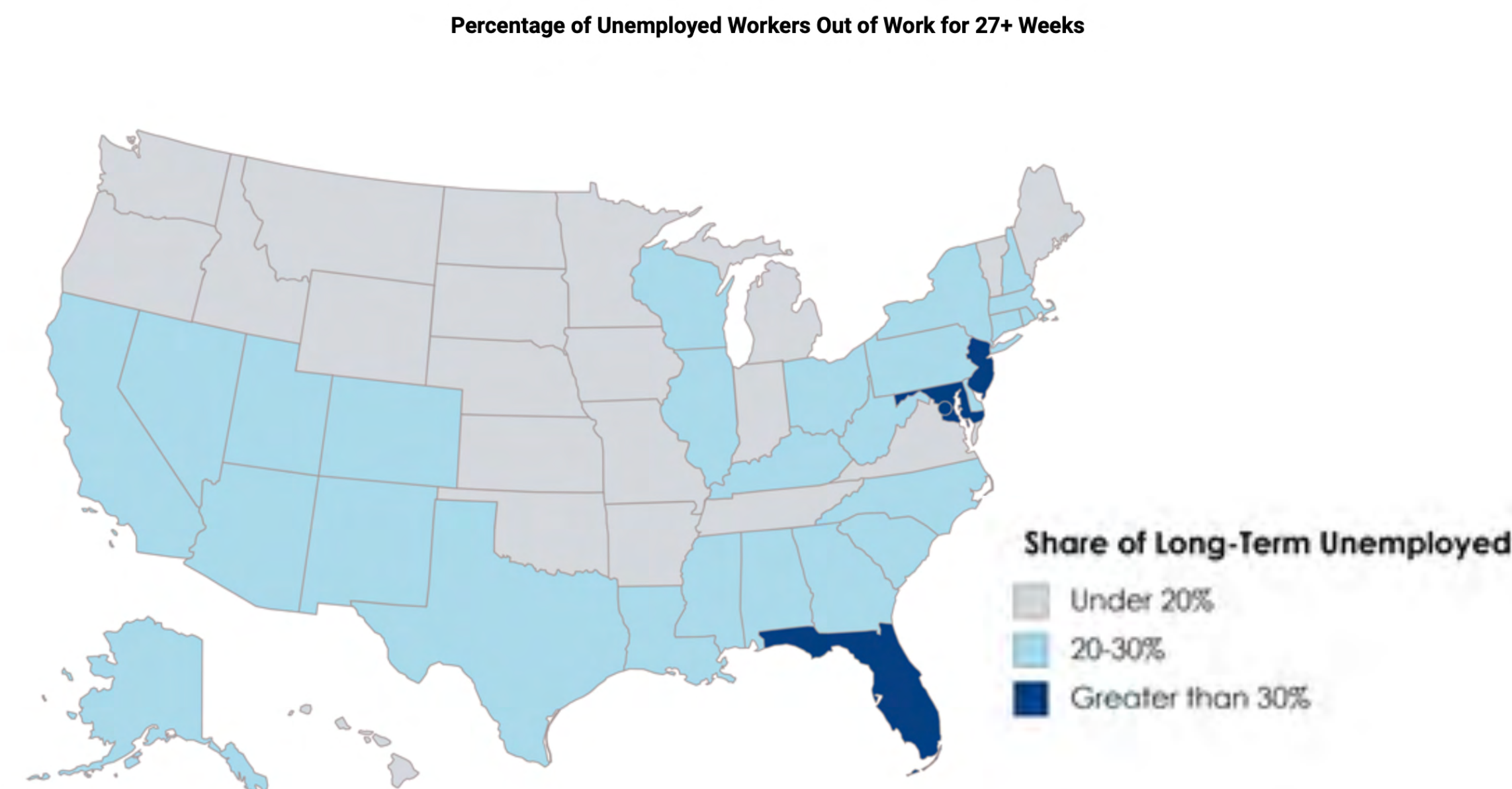


Image Source: John J. Heldrich Center for Workforce Development at Rutgers University, About Long-Term Unemployment



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: A lack of training and upskilling



- In 2019, the average labor underutilization rate in the state was 6.8%.
- 2.5% of the state labor force was employed part-time for economic reasons, however the rate today is likely far higher due to the pandemic.
- Analysis from the Center for Law and Social Policy suggests that the true part-time underemployment rate may be twice as high as the U.S. Bureau of Labor Statistics reports.



THE FUTURE OF WORK: WHY NOW?

Chronic Challenge: A lack of training and upskilling

The gig economy may play a role in chronic underemployment. Online platforms have made part-time work more accessible, but trapped workers in low-quality, low-paying jobs that offer few benefits, including access to training programs that can allow them to advance their careers and earning.



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and unemployment

The state unemployment rate rose from 3.7% in February 2020 to 16.6% in April 2020 and remains at 7.0% (November 2021).



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and unemployment

COVID-19 disproportionately impacted people of color.

- 20.0% of Unemployment Insurance claims in the state were filed by Black residents although Black individuals make up only 12.4% of the population. (March 2021)
- Hispanic residents filed 24.7% of Unemployment Insurance claims despite comprising only 19.4% of the state's population. (March 2021)



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and unemployment

Percent Change in Employment*

In **New Jersey**, as of **August 10, 2021**, employment rates in leisure and hospitality **decreased** by **5.9%** compared to January 2020 (not seasonally adjusted).

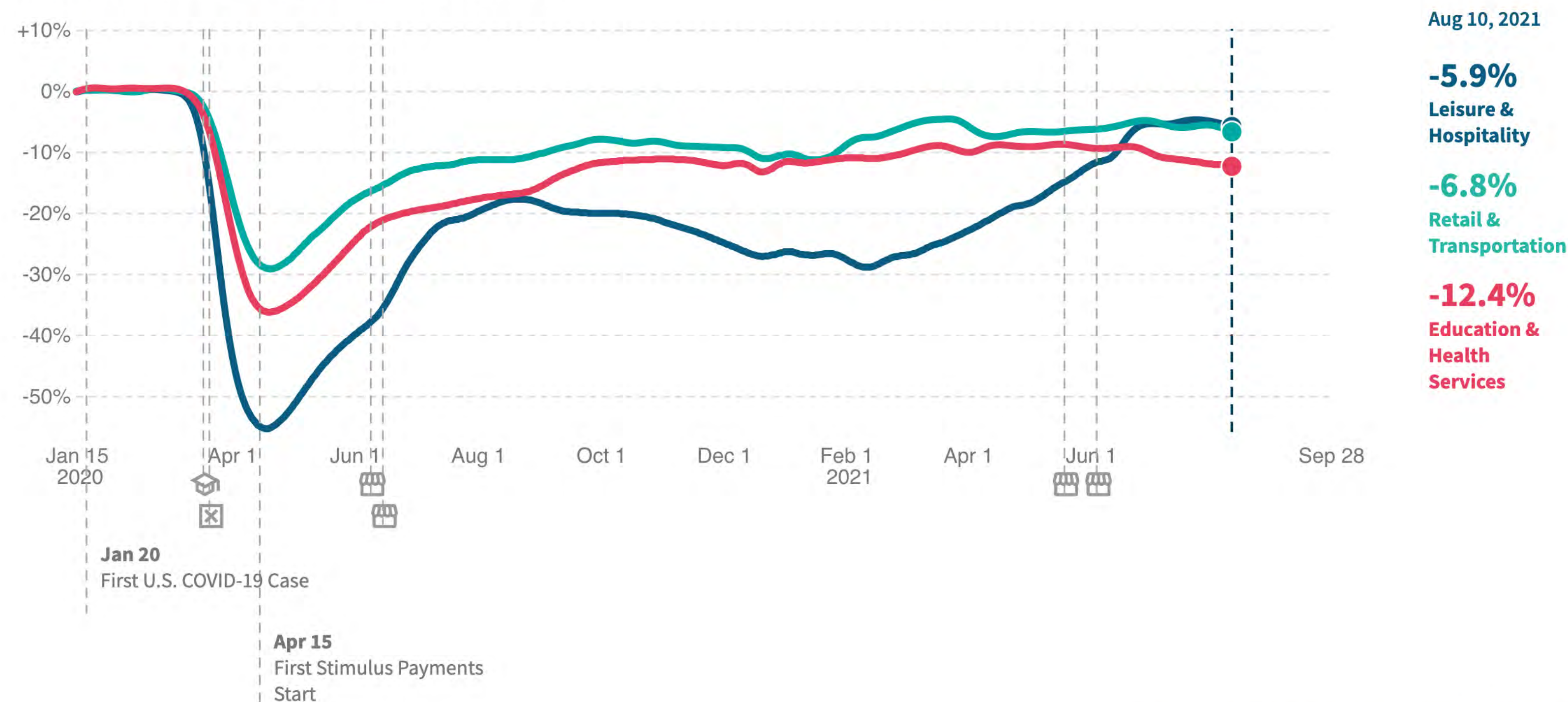


Image Source: Tracktherecovery.org, Opportunity Insight Economic Tracker, August 2021 data source: **Earnin, Intuit, Kronos, Paychex**



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and unemployment

Percent Change in Employment*

In **New Jersey**, as of **August 10 2021**, employment rates among workers in the top wage quartile **increased** by **4.6%** compared to January 2020 (not seasonally adjusted).

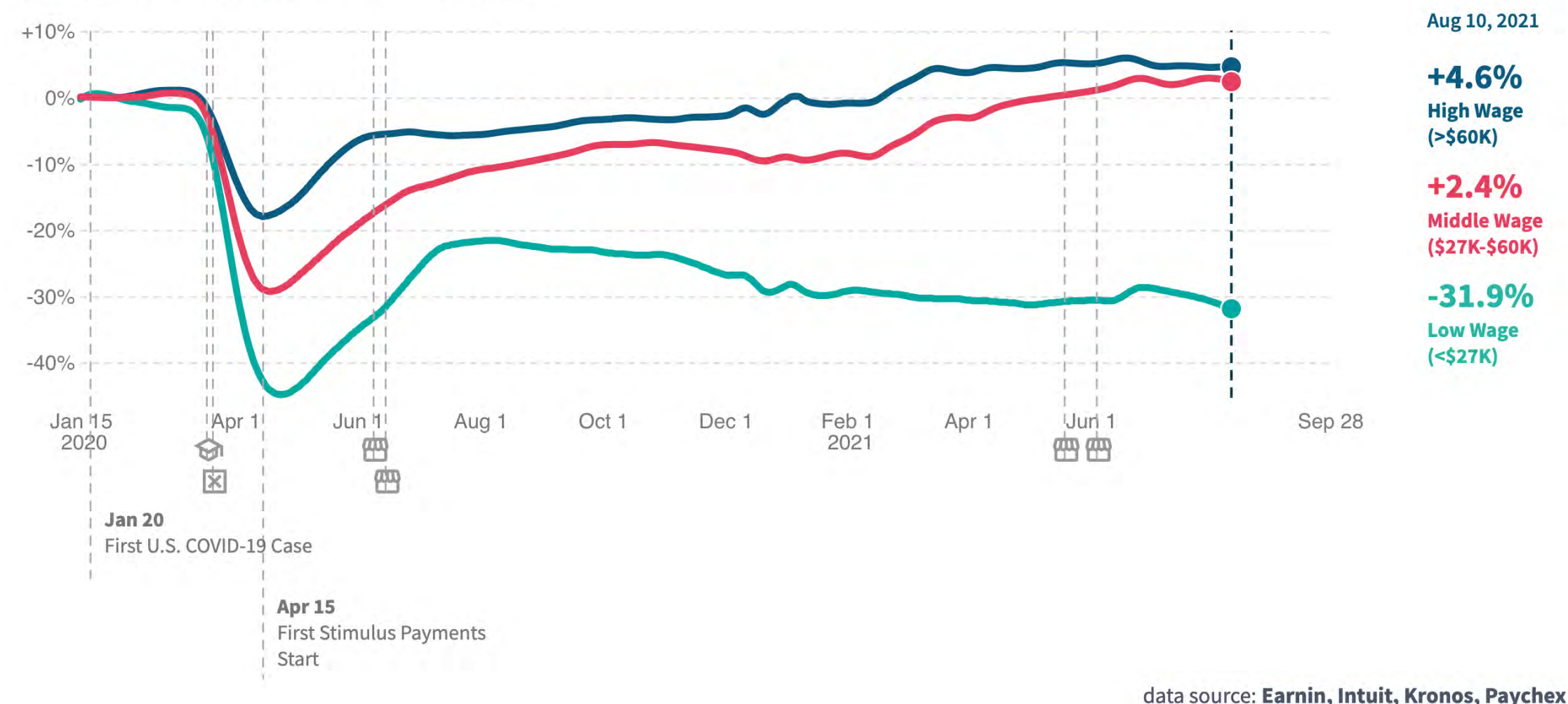


Image Source: Tracktherecovery.org, Opportunity

Insight Economic Tracker, August 2021

- 45% of lower-income individuals (those with only a high school education and \$15,000 median household income) report that they are extremely or very concerned about their job security as a result of the pandemic, compared to just 21% of the middle group and 13% of the upper group.
- Those concerns are justified, as data shows unemployment among low-income individuals has been slower to recover.



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and the economic downturn

While the economy today is rebounding, it took a significant hit. According to the Federal Reserve, GDP collapsed at a roughly 31.5% annual rate in the second quarter of 2020.



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and the economic downturn

- Of small businesses in New Jersey, 36.7% say the pandemic has had a large negative effect on their business, and 43% say it has had a moderate negative effect.
- 33.1% report their operating capacity has decreased by less than 50% since one year ago, and 14.9% say their operating capacity has decreased by 50% or more.
- 66.5% of businesses have requested financial assistance.



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and the economic downturn

- Between January 2020 and April of 2021, the number of small businesses open in New Jersey decreased by 40.8%. The number of small businesses open in the state's Leisure and Hospitality sector decreased 58.3%.
- During that same time period, total small business revenue in New Jersey decreased by 38.9%. Small business revenue in the Leisure and Hospitality sector decreased by 63.8%.



THE FUTURE OF WORK: WHY NOW?

Acute Challenge: COVID-19 and disparate health impacts

While New Jersey was tied for third-highest life expectancy in the nation, that number declined during the pandemic.

- In 2020, COVID-19 was the most common cause of death for Black, Hispanic, and Asian New Jerseyans. It was the third most common death for White New Jerseyans.
- Of the state population that has been hospitalized due to COVID-19, 18,631 (or 18.6%) are Black and 18,443 (25.1%) are Hispanic. Further, 3,846 Black New Jerseyans have died due to COVID-19 (16.6% of the state's mortalities).

LIFE EXPECTANCY

National: 77.48 years ↓ (1.13 years)

National (Blacks): 72.78 ↓ (2.10 years)

National (Latinos): 78.77 ↓ (3.05 years)

Data Source: CDC, NVSS Provisional Life
Expectancy Estimates, 2020

- ◎ **Summary of Recommendations**
- ◎ **About the Task Force**
- ◎ **Technologies Impacting Work**
- ◎ **Why Now?**

- ◎ **Your Future of Work**

- ◎ **How NJ is Already Responding**
- ◎ **Detailed Recommendations**



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

The Future of Work Task Force undertook a robust public engagement to hear directly from workers what they saw as the most important and pressing challenges of the future of work. More than 4,000 responded. This is what we learned.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers

ALL OUR IDEAS

[Cast Votes](#) [View Results](#) [About this page](#)

What is your greater concern about the impact of technology on worker rights and benefits?

There are not sufficient penalties for employers who illegally misclassify workers as independent contractors.

Failure to expunge false convictions from databases can lead to people being denied jobs.

I can't decide

6687 votes on 60 ideas

Add your own concern here (Character limit 140 characters)...

Over three weeks in early 2020, the New Jersey Future of Work Task Force, with the help of 40 advocacy and interest groups around the state, asked New Jersey's workers and employees for their views on the impact of technology on the future of work.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers

WHAT IS THE FUTURE OF WORK IN NEW JERSEY?

Changes in technology and in the economy will affect the way we work, our workplaces, the jobs we work in, and the skills we will need to succeed. We want to know how workers are experiencing these changes already, how they believe technology will affect their ability to find and keep good employment in the future, and what kinds of training opportunities and workplace protections they need most.

YOUR VOICE MATTERS. WE WANT TO HEAR FROM YOU!

The [New Jersey Future of Work Task Force](#) wants to know what YOU think are the most important and pressing challenges. Participate by **Sunday, March 15, 2020** to have your voice heard.

To get started, choose a topic.

Skills and Lifelong Learning

Worker Rights and Benefits

Worker Health and Safety

Over 4,000 respondents shared their greatest concerns with regard to the impact of new technology on:

- Skills and Lifelong Learning
- Worker Rights and Benefits
- Worker Health and Safety



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**



SKILLS AND LIFELONG LEARNING

- **Lack of Access to Training** - Many employers do not provide skills training, or pay for outside training that workers need to succeed. Single parents and those caring for others find it difficult to set aside the time for skills training or education.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**



SKILLS AND LIFELONG LEARNING

- **Skills Mismatch** - There is a disparity between the skills that training courses and post-secondary degree programs cover and the skills that employers desire. This leaves workers unprepared to navigate career changes.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**



SKILLS AND LIFELONG LEARNING

- **Job Market Uncertainty** - As in-demand skills continue to change, workers are uncertain if existing training programs can sufficiently prepare them to compete in future job markets.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**

WORKER RIGHTS AND BENEFITS

- **Costs of Living** - including medical, housing, and education costs have risen over the last few decades.





YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**

WORKER RIGHTS AND BENEFITS

- **High Out-of-Pocket Costs** - Workers who do not qualify for benefits end up paying high out-of-pocket costs for medical and other emergencies.





YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**

WORKER RIGHTS AND BENEFITS

- **Reduced Benefits** - Businesses are less inclined to offer benefits to their employees than they used to be. Involuntary part-time work translates into limited or no benefits from employers.





YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**

WORKER RIGHTS AND BENEFITS

- **Lack of Full-Time Jobs** - A lack of full-time jobs in many fields forces workers to take independent contractor positions without benefits.





YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**



WORKER HEALTH AND SAFETY

- **Erosion of Privacy** - As employers expand their use of workplace surveillance technologies, workers lack a voice in determining what data is collected about them on and off the job, including personal information about their health. Remote monitoring in the workplace should be regulated to avoid negative impacts on health, prevent potential discrimination, and to protect workers' privacy.



YOUR FUTURE OF WORK: WHAT WORKERS TOLD US

What we learned from 4,000 workers: **Top concerns**



WORKER HEALTH AND SAFETY

- **Erosion of Work-Life Balance** - Telecommuting technology contributes to blurring lines between our work and personal lives, increasing work hours and disrupting workers' free time.

- ◎ **Summary of Recommendations**

- ◎ **About the Task Force**

- ◎ **Technologies Impacting Work**

- ◎ **Why Now?**

- ◎ **Your Future of Work**

- ◎ **How NJ is Already Responding**

- ◎ **Detailed Recommendations**



HOW NJ IS ALREADY RESPONDING

The State of New Jersey is already undertaking an array of actions to address the challenges and opportunities created by the future of work. Investments in education and skill-building, wraparound employment services, worker protection, and COVID-19 recovery initiatives are helping the State chart a clear path forward. Meanwhile, private sector institutions and community-based organizations are also doing their part to prepare for tomorrow.



HOW NJ IS ALREADY RESPONDING

Improving wage growth and combating poverty

In 2019, Governor Phil Murphy signed a law to gradually increase the state's minimum wage to \$15 dollars an hour. In 2022, most employees' wages will increase from \$12 to \$13 per hour. The move towards a livable wage will prevent New Jersey families from joining the 6.3 million “working poor” in America (2019).

STATE OF NEW JERSEY
GOVERNOR PHIL MURPHY

Home Administration Key Initiatives **News and Events** Social Contact Us



Governor Murphy Signs Landmark Legislation Raising Minimum Wage to \$15 Per Hour

02/4/2019

New Law Will Boost Wages for Over One Million New Jersey Workers

ELIZABETH – Governor Phil Murphy today signed legislation that will raise New Jersey's minimum wage to \$15 per hour by 2024. The bill (A-15), sponsored by Senate President Steve Sweeney and Assembly Speaker Craig Coughlin, will grow the economy and raise wages for over one million New Jersey workers, giving them a foothold in the middle class.

"For far too long, too many of our fellow New Jerseyans have been struggling to survive on wages that have not kept up with the cost of living," said Governor Murphy. "I am incredibly proud to sign legislation that raises the minimum wage to \$15 per hour, ensuring that the most vulnerable among us will have the means to put food on the table, while growing our economy and addressing priorities of the small business community. I thank Senate President Sweeney, Speaker Coughlin, and thousands of advocates and community leaders throughout our state for their unwavering commitment to making this goal a reality."

"In New Jersey there is no way a family can survive on \$8.85 an hour. Fair wages are about paying people enough to afford the rising costs of health care, education and the basic necessities in life," said Lieutenant Governor Sheila Y. Oliver, who also serves as Commissioner of the Department of Community Affairs. "New Jersey has made a historic decision today that will help raise over a million working families out of poverty while boosting the economy. I proudly stand by Governor Murphy as he signs a \$15 minimum wage into law."

"Our goal of reaching a \$15 minimum wage will now become a reality. A minimum wage should be a living wage," said Senate President Sweeney. "This is a progressive plan that will provide greater economic fairness for minimum wage workers, helping to improve their standard of living and their quality of life. We can now achieve greater economic fairness by closing the wealth gap that has separated segments of society."

"I am proud to join Governor Murphy and Senate President Sweeney during this remarkable day to celebrate our minimum wage bill becoming law," said Speaker Coughlin. "Too many workers aren't earning enough to make ends meet. But, that all changes today. Today marks a new day for New Jersey residents and future generations, as we gradually raise the minimum wage and help alleviate poverty across our great state."

The current minimum wage in New Jersey is \$8.85 per hour. Under the new law, the base minimum wage for New Jersey workers will increase to \$10 per hour on July 1, 2019. By January 1, 2020, the statewide minimum wage will increase to \$11 per hour, and then will increase by \$1 per hour every January 1st until it reaches \$15 per hour on January 1, 2024.

For seasonal workers and employees at small businesses with five or fewer workers, the base minimum wage will reach \$15 per hour by January 1, 2026. By January 1, 2028, workers in these groups will receive the minimum wage inclusive of inflation adjustments that take place from 2024 to 2028, equalizing the minimum wage with the main cohort of New Jersey workers.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



Seeking to address racial, gender, and geographic disparities in access to education and good employment, New Jersey has identified several opportunities:

- **Launch the Opportunity Meets Innovation Challenge:** Award grants to implement best practices that increase college completion.
- **Make College More Affordable:** Establish transparent, predictable, and guaranteed higher education pricing.
- **Expand Access for Targeted Populations:** People with disabilities, ex-offenders, immigrants, and veterans.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

The Jobs NJ plan, launched January 2020, highlights the goal to increase the number of post-secondary graduates employed in high-demand industries by 10 percent by 2025 and ensure at least 25,000 additional adults enroll and graduate with a high-quality credential. To achieve this goal, the State has implemented initiatives aimed at expanding access to educational opportunities, focusing on developing training for in-demand jobs, and ensuring that employers can find the talent they need to grow their businesses.





HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



Similarly, New Jersey's Higher Education Plan highlights the "65 by 25" goal to have 65% of working-age adults with high-quality credentials or degrees by 2025. The historic investment in the Garden State Guarantee and Community College Opportunity Grant will ensure eligible students can receive a tuition-free education for their first two years at any public college or university in New Jersey.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



In accordance with the State's Higher Education Plan, the Office of the Secretary for Higher Education is currently developing a statewide internship program to connect students to meaningful, paid experiential learning opportunities in in-demand industries. The program will interface with employers, institutions of higher education, and students to develop robust relationships that ensure a successful and durable internship program.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

Computer Science for All is an NJ Department of Education initiative to promote access to good quality computer science education for K-12 students.

Department of Education

**Computer Science**

Home

Home / Computer Science / Computer Science

Computer Science

Mission Statement

The NJDOE is committed to promoting equitable access to high-quality computer science education for all K to 12 students in preparation for postsecondary success.

Vision Statement

New Jersey will be a leader among states in preparing its students to succeed in today's knowledge-based economy by providing equitable and expanded access to high-quality, standards-based computer science education and building capacity, partnerships and awareness to promote the State plan's long-term success.

Every school district in New Jersey will engage families, district boards of education, and community stakeholders to establish an equitable and approach to computer science instruction that scaffolds high-quality learning experiences and equips K to 12 students with the knowledge and meet or exceed the New Jersey Student Learning Standards.

Back to top



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



Governor Philip D. Murphy • Lt. Governor Sheila Y. Oliver
[NJ Home](#) | [Services A to Z](#) | [Departments/Agencies](#) | [NJ Gov FAQs](#)

 Search...

[About Us](#) | [Students](#) | [Parents/Guardians](#) | [School Counselors](#) | [Financial Aid Administrators](#)
[Public Notices](#) | [Login](#)



CCOG Details and Information

The Community College Opportunity Grant is available for Academic Year 2021-2022!

New Jersey students enrolled in any one of the State's 18 county colleges may be eligible for tuition-free college. Students who are enrolled in at least 6 credits per semester in Fall 2021 and/or Spring 2022 and who have an adjusted gross income of \$0 - \$65,000 will be considered for this state grant.

There is no separate application. If you already completed the [FAFSA®](#) or the [NJ Alternative Financial Aid Application](#) for NJ Dreamers, you are automatically being considered for this state aid.

The Community College Opportunity Grant provides New Jersey students enrolled in the State's 18 county colleges with opportunities for tuition-free college.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

Pathways in Technology Early College High School (P-TECH) is a career pathway program that includes strong industry, secondary, and post-secondary partnerships designed to align with industry economic development initiatives.





HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



The UPSKILL: New Jersey Incumbent Worker Training Grants program offers competitive grants to New Jersey employers to provide reimbursement assistance to train incumbent frontline employees to meet the current and future occupational skill requirements of available high wage jobs in New Jersey.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



In June 2021, the Governor announced the New Jersey Pay it Forward Program, which will provide interest- and fee-free loans from a revolving fund to support low-income New Jersey career seekers participating in approved training programs.

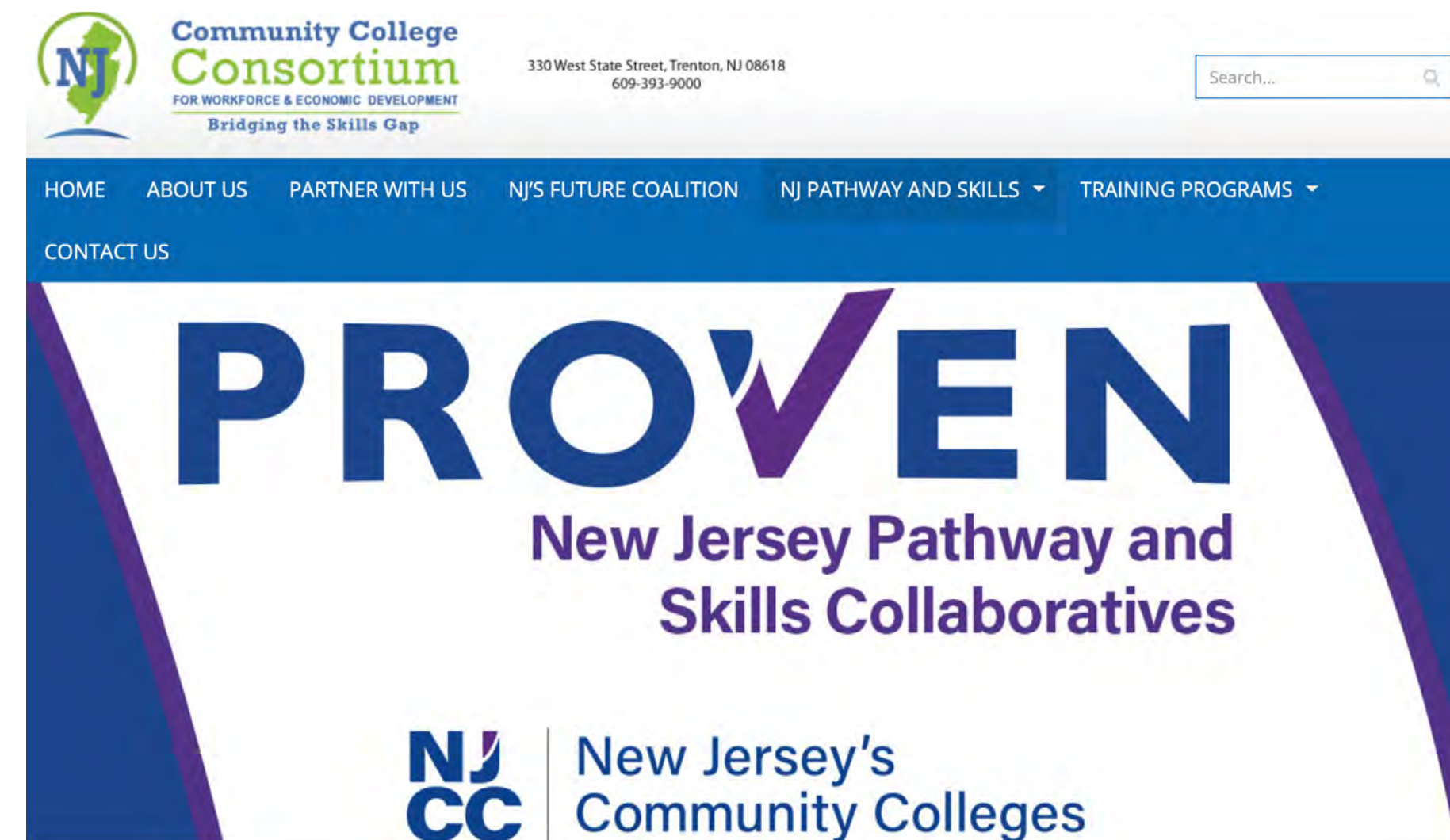
The program provides zero-interest loans and grants to students who are enrolled in non-degree credential and certificate programs at approved training providers. The program will focus on helping students enrolled in short-term training programs that offer high-quality, industry-recognized credentials and certificates in high demand fields, and participants will not be required to make any repayments until they have successfully completed the training program and their income exceeds a specific level.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

The New Jersey Pathway and Skills Collaboratives bring together leaders of industry, workforce development organizations, vocational-technical high schools, higher education institutions, and community-based organizations to promote the earning of stackable, industry-valued credentials by designing and offering robust and inclusive pathways that will be guided by industry-specific employer leadership groups. These Collaboratives are further supported by the Centers of Workforce Innovation program that will create hubs of industry-informed curriculum development and teaching resources for targeted industry sectors at New Jersey community colleges.





HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



Wind Council Report

Recommendations Issued Pursuant to Executive
Order No. 79

Report Issued on April 22, 2020

In April 2020, the State announced plans to establish the WIND Institute, an organization that will facilitate workforce development, research, and innovation in New Jersey's offshore wind industry. The program will identify skills gaps in the current workforce to inform workforce training programs, creating new opportunities for New Jersey workers.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



The NJ Wind Turbine Tech Training Challenge is a competitive grant program awarding up to \$1,000,000 to a New Jersey community college to establish an offshore wind turbine technician training program that includes an industry-recognized, credit-bearing certificate program and pathway to an associate's degree or higher.

The Challenge aims to prepare New Jerseyans for careers as offshore wind turbine technicians, a high-growth, high-wage profession that is integral to the growth of the state's offshore wind sector.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



In 2019, the New Jersey Office of Innovation launched an Innovation Skills Accelerator program to train public officials to leverage new technology and data to drive innovation in their day-to-day work. The free course includes video lectures, interviews with global public-sector innovators, readings, and self-assessments.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

The NJ Apprenticeship Network (NJAN) is a NJDOL initiative to expand and strengthen apprenticeship programs throughout the state, with a particular focus on diversifying the types of industries and pool of career-seekers leveraging “earn and learn” models.

NJAN has facilitated an 81% increase in registered apprenticeship programs in New Jersey since January of 2018, as part of a broad investment in experiential learning that also includes an expansion of internship and pre-apprenticeship opportunities.



The New Jersey Apprenticeship Network (NJAN) is committed to developing a 21st century apprenticeship model that drives economic development through skills and educational attainment by developing and strengthening apprenticeship programs throughout the state, and increasing opportunities for both youth and adults. The Office of Apprenticeship is the primary contact and technical resource for employers, educational institutions, trade associations, and current/future apprentices for all statewide NJAN initiatives.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

As part of the New Jersey Apprenticeship Network, the State has launched several programs and invested millions of dollars.

- The Growing Apprenticeship In Nontraditional Sectors (GAINS) promotes expansion of USDOL's approved Registered Apprenticeship programs to support better-paying careers and advanced credential attainment.
- The Pre-Apprenticeship in Career Education (PACE) program supports pre-apprenticeship programs that provide education and training to prepare participants for placement into a Registered Apprenticeship program, into a post-secondary college or occupation-specific career training program, or into the workforce.
- Since January 2018, New Jersey has created 549 new Registered Apprenticeship programs – a 90% increase – and on-boarded 8,785 new apprentices. The state currently has 8,961 active apprentices in 1,160 programs.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building



NJDOL has invested more than \$5 million in grant funding under the NJ Pathways Leading Apprentices to a College Education (NJ PLACE 2.0) program to encourage the development of Degree Apprenticeship structures that integrate paid on-the-job learning with credit-bearing classroom education.

The model pairs apprenticeship partners with institutions of higher education to give student apprentices the opportunity to concurrently fulfill the requirements of a Registered Apprenticeship program and an associate's, bachelor's, or graduate degree by earning credit for paid work-based learning.



HOW NJ IS ALREADY RESPONDING

Investment in education, training, and skill building

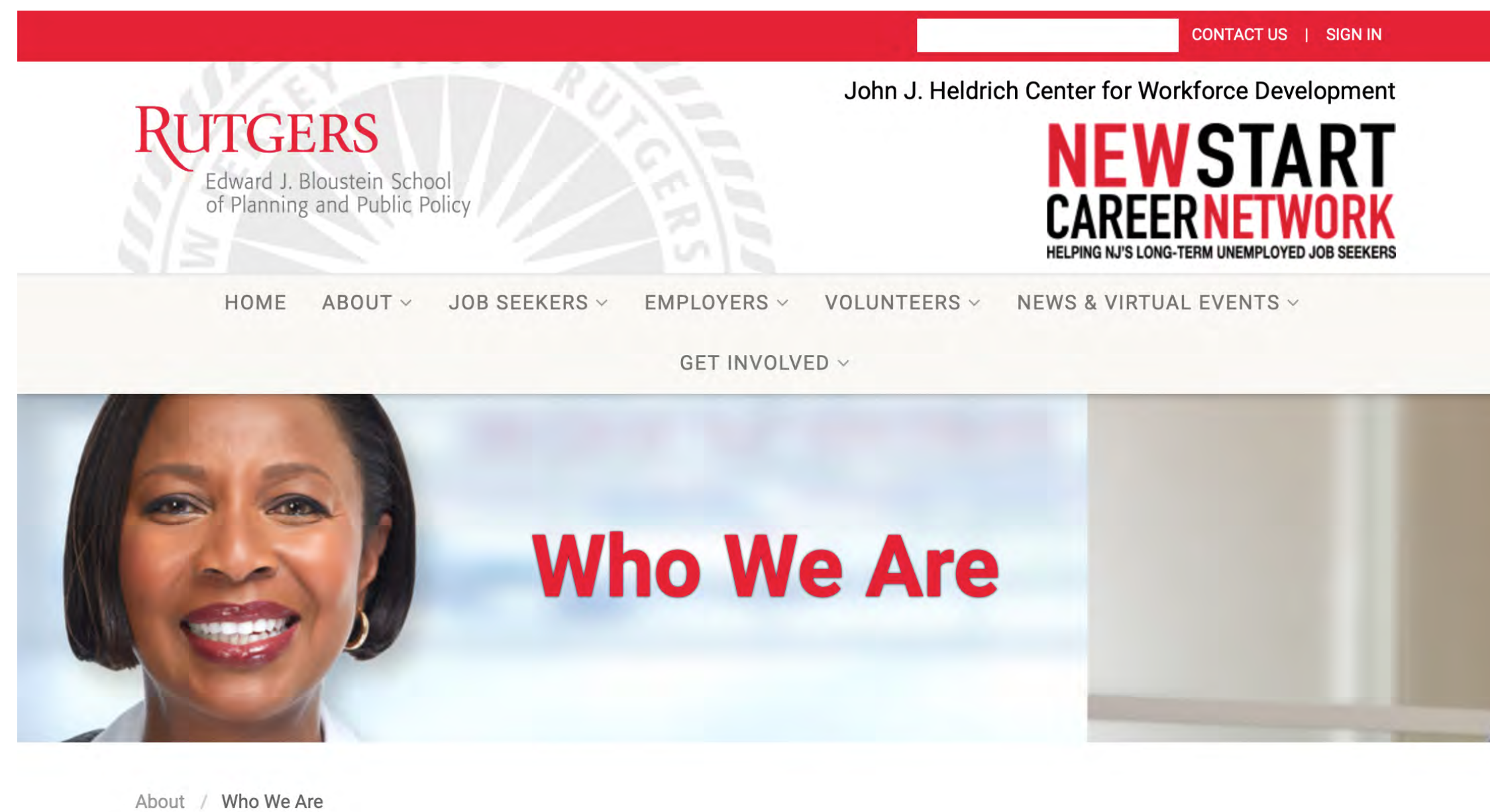
The Women and Minority Groups in Construction Trades grant program offers greater employment opportunities for women and minorities, residing in New Jersey, by providing pre-apprenticeship training, workforce readiness/employability, and a structured work experience that will emphasize vocational-based training for entry-level skills in the construction trades.





HOW NJ IS ALREADY RESPONDING

Coaching and wraparound employment services



The New Start Career Network is a program run by The Heldrich Center for Workforce Development at Rutgers University that connects older, long-term unemployed job seekers with free career services including coaching, education, training, and mental health and financial services referrals.



HOW NJ IS ALREADY RESPONDING

Coaching and wraparound employment services

The NJDOL Benefits Eligibility Tool on the COVID-19 Information Hub includes an online tool to find out which job protections and benefits (unemployment, family leave insurance, temporary disability insurance, workers' compensation) are available to workers.



NEW JERSEY
COVID-19 Information Hub

Call (General COVID-19 Questions): [2-1-1](tel:2-1-1) (7a-11p)
Call (Clinical Questions): [1-800-962-1253](tel:1-800-962-1253) (24/7)
Text NJCOVID to [898-211](tel:898-211) to receive alerts

NJDOL Benefits Eligibility Tool

The COVID-19 outbreak is causing extraordinary disruption in the lives of New Jersey workers. The New Jersey Department of Labor and Workforce Development (NJDOL) wants to make it easier for you to understand what benefits programs may be available to you to help stabilize your household during this difficult time.

This is a beta version of this tool. We will update it regularly as new federal, state, and local benefits become available. We will check your eligibility for the programs below based on the information you provide.

Included programs

Benefits

- NJ Earned Sick Leave (ESL)
- NJ Family Leave Insurance (FLI)
- NJ Temporary Disability Insurance (TDI)
- NJ Family Leave During Unemployment (NJFLDU)
- NJ Disability During Unemployment (NJDDU)
- Unemployment Insurance (UI)
- Unemployment Assistance (CARES Act)



Language

English

Progress

0%

Clear Form

Introduction

Eligibility



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers

The State of New Jersey is using new and existing tools to ensure that worker rights are protected.



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers: Combatting worker misclassification



The Task Force on Employee Misclassification released a comprehensive report and recommendations that resulted in the passage of several early pieces of legislation. Internal agency working groups coordinated to put forward additional policy recommendations.



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers: Combatting worker misclassification

This year, the legislature passed, and Governor Murphy signed, a four-bill legislative package, furthering State efforts to stop the practice of illegally classifying employees as independent contractors.

This package will:

- Create a new Office of Strategic Enforcement and Compliance within the State's Department of Labor.
- Simplify the process for identifying misclassified workers.
- Implement stop-work orders at worksites where misclassification is identified.
- Provides penalties of \$5,000 per day for a failure to comply with a stop-work order, and entitles employees to pay from their employers for the first ten days of a stop-work order.



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers: Mitigating negative impacts of algorithmic hiring tools

The Division on Civil Rights of the New Jersey Attorney General's Office plans to propose regulations that combat the use of algorithmic hiring tools that discriminate in recruitment, interviewing, and/or hiring processes.



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers: Penalties for companies that violate worker rights

The Economic Recovery Act of 2020, which overhauled the State's incentive programs, requires companies wishing to access economic support programs to be in good standing with the State's Department of Labor, the Department of Environmental Protection, and the Department of Treasury.

Similar rules and regulations apply to the State's COVID-19 emergency assistance grant programs in order to ensure that businesses that violate workers rights cannot access State support.



HOW NJ IS ALREADY RESPONDING

Regulation to protect workers: Penalties for companies that violate worker rights

State procurement regulations also require the Department of Treasury to debar from public contracting any businesses that violate laws governing hours of labor, minimum wage standards, prevailing wage standards, discrimination in wages, or child labor.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for businesses

New Jersey has distributed \$759 million in grants to small business as of July 2021.



EDA: New Jersey ranks 3rd in distributing grants to small business

JULY 27, 2021 | POLITICO

New Jersey ranks third among states in how much in grants it has distributed to small businesses during the pandemic, according to an analysis from the state's Economic Development Authority. According to the analysis, which was compiled based on publicly available data, New Jersey has distributed \$759 million in grants to small businesses.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for businesses

The State created the NJ Small and Micro Business PPE Access Program that provides \$24 million to small businesses to purchase discounted personal protective equipment (PPE).





HOW NJ IS ALREADY RESPONDING

COVID-19 relief for businesses



The State is establishing numerous grant and loan programs to provide financial assistance to small businesses.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for businesses

Sustain and Serve provides grants to support the purchase of meals from New Jersey-based restaurants for New Jersey families impacted by COVID-19 and struggling to put food on the table. The program helped keep vulnerable restaurants open through the pandemic, prevented job loss, and kept families fed during these difficult times.

To date, the State has dedicated more than \$45 million to the program which has purchased more than 4.5 million meals and supported more than 400 restaurants across all New Jersey counties.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for businesses and workers



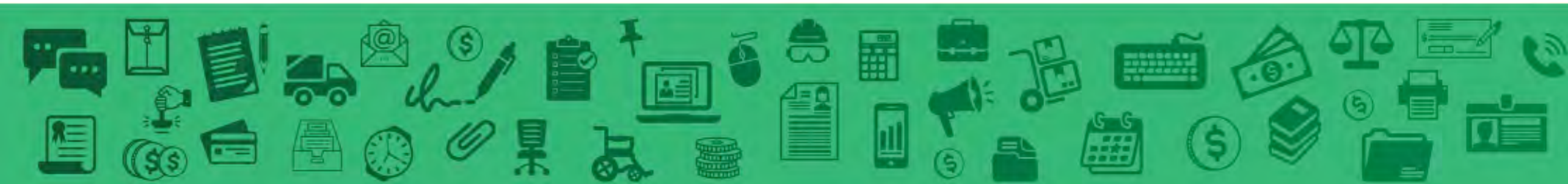
The Return and Earn program provides a \$500 incentive for unemployed workers to re-enter the workforce, and leverages other State wraparound services to provide transportation and child care assistance to help New Jerseyans return to work.

As part of the program, businesses with 100 or fewer employees can receive up to \$10,000 in wage subsidies for new hires receiving on-the-job training.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for workers



KNOW YOUR RIGHTS

Information for all
New Jersey workers

Governor Murphy ordered new COVID-19 workplace protocols, and provisioned NJDOL to establish a system to receive complaints from New Jersey workers, a process for consideration of complaints, and a system to address complaints in coordination with DOH. This forward-thinking policy was a model OSHA later looked at for federal protections.



HOW NJ IS ALREADY RESPONDING

COVID-19 relief for workers

[Home](#)
[File or Access Your Claim](#)
[Worker Protections](#)
[Career Support](#)
[Employer Services](#)
[Research & Information](#)
[About Us](#)

[Home](#) / [Worker Protections](#) / [Paid Sick Leave](#) / Worker Benefits, Protections and the Coronavirus (COVID-19): What NJ Workers Should Know

Worker Benefits, Protections and the Coronavirus (COVID-19): What NJ Workers Should Know



New Jersey has among the most comprehensive [Earned Sick Leave](#), [Temporary Disability](#) and [Family Leave Insurance](#) laws in the country, which cover all types of workers – full-time, part-time, temporary and seasonal.

In addition, employees **can't be fired for taking time off** to test, quarantine or isolate, with a medical note recommending that the employee take that time off because the employee has, or is likely to have, an infectious disease that may infect others at the employee's worksite. Employers must also follow COVID-19 workplace [health and safety requirements](#).

There are also federal laws that expand [Unemployment Insurance benefits](#) to more workers and

Printable guides outlining COVID-19–related benefits for NJ employees




Information in English

Please note: our benefits chart covers paid leave and cash benefits. For

Información en español

Tenga en cuenta: Nuestra tabla de beneficios cubre la licencia pagada y los

NJDOL also created a series of web pages to provide information about applying for unemployment benefits, NJ Paid Family and Medical Leave, emergency paid sick leave, and expanded family and medical leave.

NJDOL has also published information on COVID-19 rights and protections for workplace health and safety.



HOW NJ IS ALREADY RESPONDING

The private sector is also taking action

Some businesses are embracing principles of "stakeholder capitalism" — the Business Roundtable statement signed by 181 CEOs committing to lead their businesses for the benefit of all stakeholders, including employees and communities — and stepping up to "address adverse impacts related to workers, human rights, the environment, bribery, consumers, and corporate governance that may be associated with their operations, supply chains, and other business relationships." (OECD 2018).

Several innovative New Jersey businesses are also addressing key challenges, such as the need for greater workplace safety and training. Here are a few.



HOW NJ IS ALREADY RESPONDING

The private sector is also taking action

- Audible is the leading creator and provider of original spoken-word entertainment and audiobooks.
- Located in Newark, the company has almost three thousand employees and created a number of initiatives to cultivate local talent and hiring.
- In 2019, the company opened its “innovation cathedral” in the historic Presbyterian Church.
- During the pandemic, Audible donated \$1 million in meals from local restaurants for families in need. The program played a critical role in preventing job loss in the city by keeping restaurants in business.

Business Spotlight (Social Responsibility)

Audible, Newark

Innovation Cathedral Opening Marks Audible's Next Chapter in Newark





HOW NJ IS ALREADY RESPONDING

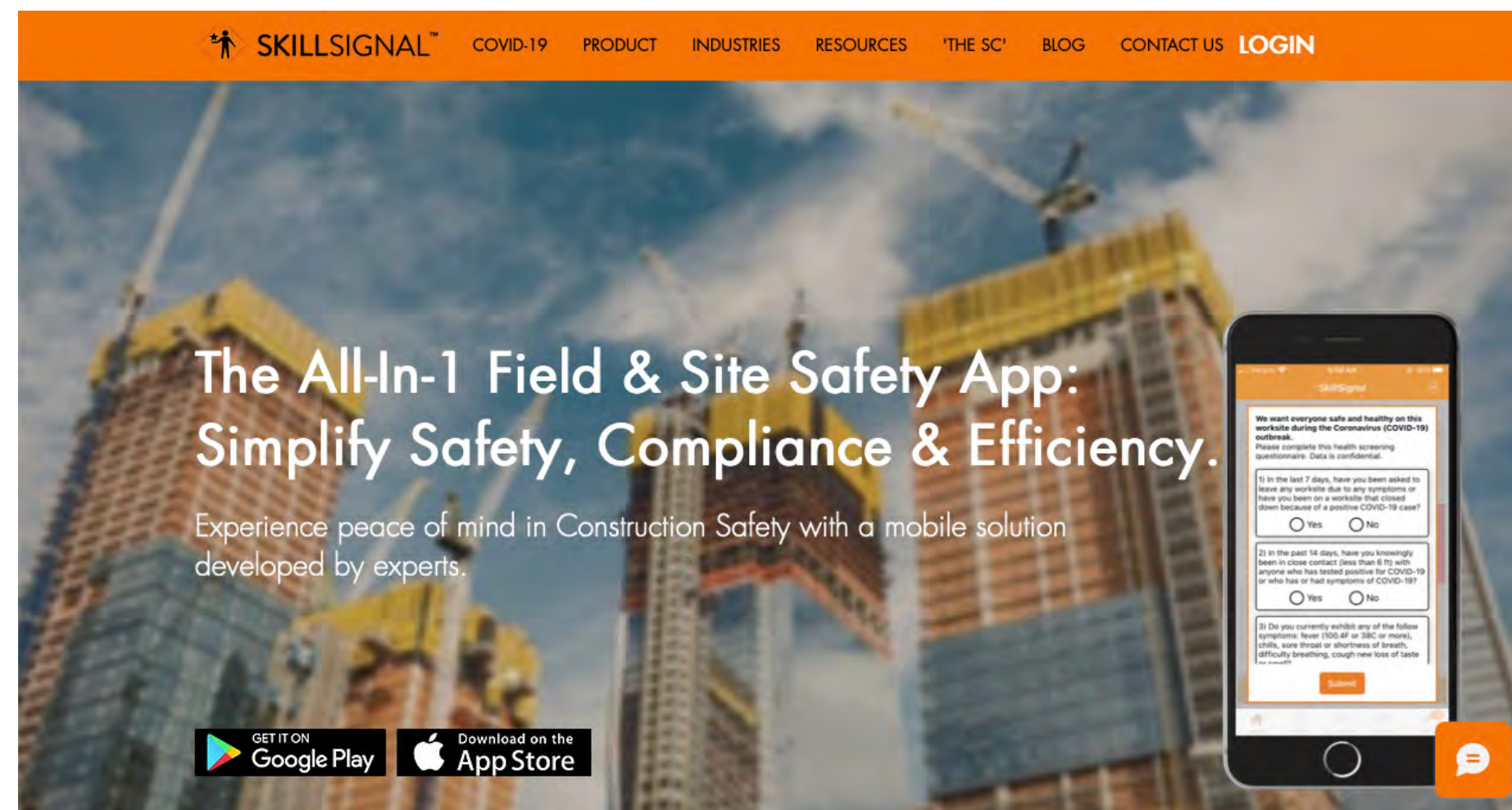
The private sector taking action: **Worker Safety**

Business Spotlight (Worker Safety)

Skillsignal, Princeton

(Founded 2018): <https://www.skillsignal.com/>

- SkillSignal's cloud-based software is used to manage health, safety, and the workforce on construction worksites. Construction workers use a multilingual mobile app to complete safety orientations, complete their daily Covid assessment, watch training videos, and receive worksite alerts. Supervisors use the app to access real-time safety and workforce information. For example, supervisors can ensure workers have the proper safety certifications to operate worksite equipment.





HOW NJ IS ALREADY RESPONDING

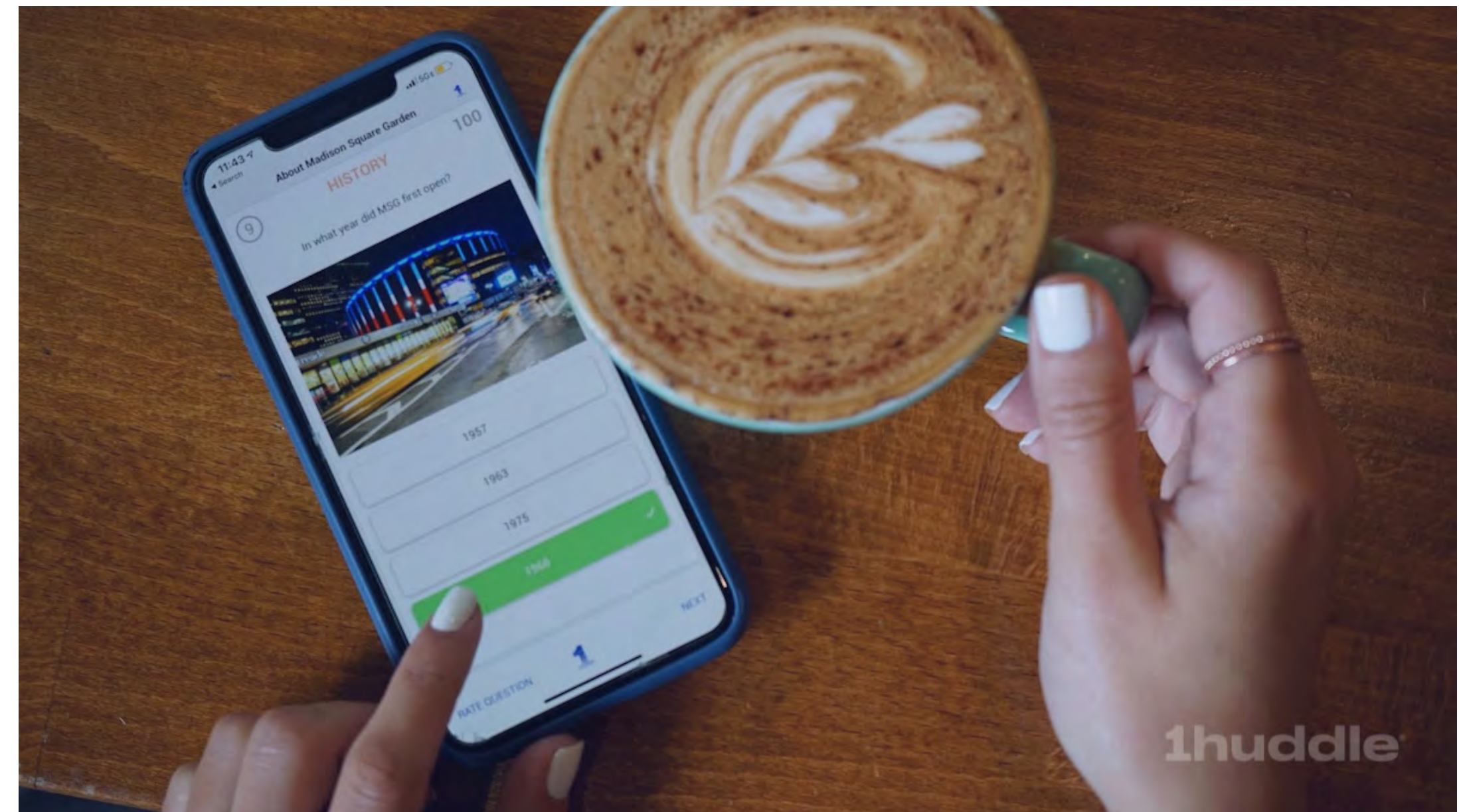
The private sector taking action: **Skills Training**

Business Spotlight (Skills Training)

1Huddle, Newark

(Founded 2015): <https://1huddle.co>

1Huddle creates mobile games that help companies recruit, onboard new hires about the company and their role, and train employees. Employers can turn their existing materials, courses, and workshops into quick burst games that train workers faster on everything from safety, diversity, and compliance to leadership, management, and other types of upskilling.



- ◎ **Summary of Recommendations**
- ◎ **About the Task Force**
- ◎ **Why Now?**
- ◎ **Technologies Impacting Work**
- ◎ **Your Future of Work**
- ◎ **How NJ is Already Responding**
- ◎ **Detailed Recommendations**



THE TASK FORCE'S STRATEGIES AND RECOMMENDATIONS

The New Jersey State Future of Work Task Force has made ongoing recommendations that the State invest in policies, platforms, and programs that respond to both the dislocation of workers caused by technology and the positive opportunities technology creates. Many of these recommendations are already being implemented.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

THE TASK FORCE RECOMMENDS

creating Lifelong Learning Accounts for all New Jerseyans and funding the accounts of low-wage workers.

- ▶ The Task Force proposes that the State create Lifelong Learning Accounts (LiLAs) - tax-advantaged savings accounts that individuals may use for qualified education and skills training programs - for all state residents. The State would fund LiLAs for New Jerseyans who earn an annual adjusted gross income (AGI) of \$50,000 or less.
- ▶ LiLA funds could be used for costs related to training - including childcare, eldercare, transportation to training, books and supplies, job search assistance, and individual career services.
- ▶ The Administration and the NJ Legislature advanced this recommendation by approving \$10 million for Lifelong Learning accounts in the FY 2022 budget.
- ▶ The Task Force also recommends encouraging and providing mechanisms for employers to match funds for lifelong learning.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

TRAINING OPPORTUNITY

Practical Nursing

In Demand

Avg Salary after Program: \$38,950 | Program Completion Rate: 90.9%

Description

The Practical Nursing program was designed for the adult learner who wishes to enter the nursing field and become involved in the hands-on part of nursing care. Practical Nursing meets the student's need for vocational training and the needs of the community for qualified LPNs in the workforce. Nursing is a helping profession that assists individuals, families, groups and communities in the promotion of optimal health, the aim of nursing is to promote wellness and assist in preventing illness, restoring health and facilitating coping. Nursing is a dynamic interpersonal profession in which goals are best accomplished through use of the nursing process. Nursing care is provided to patients whose self-care deficits require assistance from the nurse in meeting health care needs.

Licensed Practical Nurses (LPNs) function as a contributing member of the health care team by providing nursing care under the supervision or direction of a registered nurse or licensed physician. The LPN's scope of practice includes contributing to data collection, nursing diagnosis, planning, implementation and evaluation of the plan of care. Duties may include assignment of specific tasks and teaching basic nursing skills and principles. Practical nurses provide safe and effective care for individuals or groups in various settings. The expected outcome of this program is to provide the graduate with the ability to obtain an entry-level position within a physician's office, clinic, nursing home, rehabilitation center or hospital after successful completion of the Licensure Examination.

Quick Stats

6-12 months to complete

Associated Careers

Licensed Practical and Licensed Vocational Nurses

Cost

Item	Cost
Total Cost	\$29,899.00
Tuition	\$26,659.00
Fees	\$300.00
Books & Materials	\$291.00
Supplies & Tools	\$1,849.00
Other	\$0.00

Provider Details

Lincoln Technical Institute - Salem - FCS

675 US Route 1, Salem, NJ 08861

Dennie Mosconi
Onsite School Director/Director of Education
(732) 546-8788

www.lincolntech.edu

THE TASK FORCE RECOMMENDS

developing the Training Explorer to help workers make informed decisions about lifelong learning and training

- Through the Data for the American Dream (D4AD) initiative, the NJ Office of Innovation, in collaboration with the State's Department of Labor and Workforce Development, is building a Training Explorer to help workers compare the cost, location, and features of training programs. It will eventually will include customized advice and comparisons of employment and income outcomes.
- The Administration has already responded to this recommendation. The Training Explorer beta version is live at <https://training.njcareers.org>



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

THE TASK FORCE RECOMMENDS

implementing Worker Training Incentive programs and encouraging all employers to invest in worker training, lifelong learning, and re-employment to spur increased private investment in worker training.

- ▶ The Task Force supports the creation of a program in which small businesses (those with 1-50 employees) would be eligible for a grant that matches or exceeds the State's existing R&D tax credit.
- ▶ Small businesses would be eligible for a grant of \$1,500 per employee currently enrolled in, or recently graduated from, eligible training programs, namely those created through the NJ Pathway and Skills Collaborative (PSC) and the Opportunity Partnership Program for Business.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

THE TASK FORCE RECOMMENDS

supporting ongoing initiatives to align individuals' education with their desired career pathways and support innovation and skills collaboratives to align New Jersey's education and workforce systems.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

To support the goal of getting 65% of adults ages 25-64 to have high-quality credentials or degrees by 2025,

THE TASK FORCE RECOMMENDS

- ▶ Supporting collaboration between colleges to create clear, navigable pathways aligned to careers, such as the Pathway and Skills Collaboratives program developed by New Jersey Community Colleges, and involving career and technical education (CTE) high schools in these collaborations.
- ▶ Encouraging colleges to make their data available on the Credential Registry, an open data platform where learners can compare the credentials offered by each degree or certificate program.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring

To support the goal of getting 65% of adults ages 25-64 to have high-quality credentials or degrees by 2025,

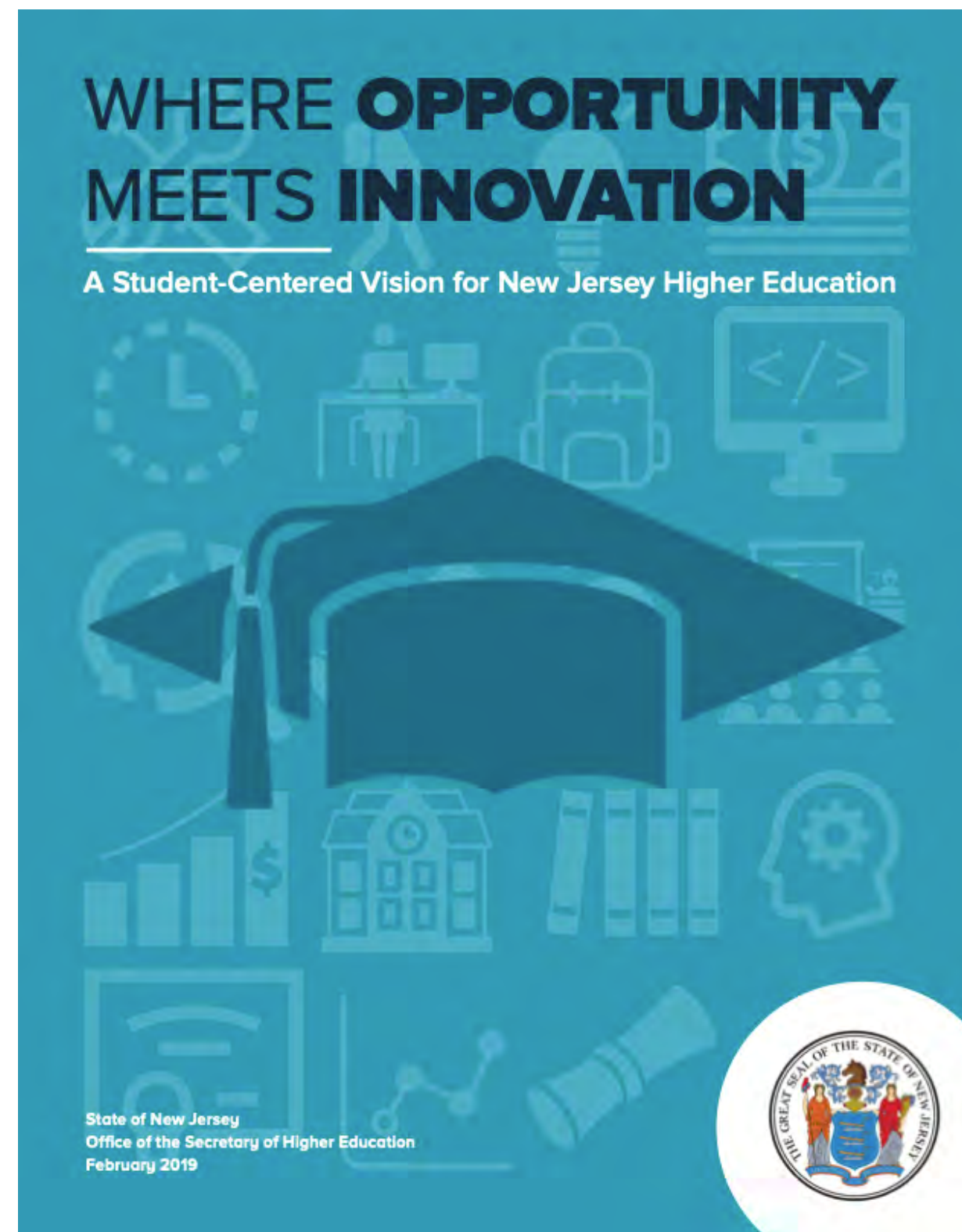
THE TASK FORCE RECOMMENDS

- ▶ Requiring some colleges to demonstrate that new degree and certificate programs meet a labor market demand, in order to encourage higher-education institutions to take accountability for employment outcomes.
- ▶ Developing a minimum standard of outcomes beneath which training programs would not be eligible to receive state and federal funding.
- ▶ Encouraging post-secondary institutions to offer credit for prior learning, such as job experience or noncredit classes.



STRATEGIES AND RECOMMENDATIONS

INVEST IN WORKERS: Lifelong Learning - Support Lifelong Learning and Skill Building to Make Workers Resilient to the Changes Technology Will Bring



THE TASK FORCE RECOMMENDS

continuing to expand low-cost opportunities to access degree programs (including access to community colleges), career and technical education and training, apprenticeships, and pre-apprenticeships.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

funding and creating better enforcement mechanisms to ensure employer compliance with workers' rights and benefits laws.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

exploring the creation of a Portable Benefits System to expand benefits to nontraditional workers.

- ▶ The State should explore the creation of a system of portable benefits to improve the financial security of workers, particularly those in non-standard working arrangements.
- ▶ This portable benefits system would allow workers to access benefits such as retirement accounts and workers' compensation insurance.
- ▶ It is important to note that select Task Force members expressed concerns that some employers may take advantage of a Portable Benefits System to misclassify employees, and that such a system will further incentivize cost shifting from private businesses to the State and/or workers. State efforts to combat misclassification will be critical to ensuring employers aren't incentivized to misclassify workers as independent contractors to shift benefit costs onto workers.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

exploring the creation of a Portable Benefits System to expand benefits to nontraditional workers.

- ▶ The Task Force is proposing to explore the expansion of the Secure Choice Savings Program (SCSP) so that all workers at businesses covered by the SCSP would have the opportunity to access tax-advantaged retirement savings through a State-administered IRA, a benefit which those classified as employees already enjoy. Firms with 50 or more workers would be required to pay into the Shared Security Accounts of workers to whom they do not currently provide benefits to, regardless of classification. Benefits under the program would begin with workers' compensation insurance.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

exploring the creation of a Portable Benefits System to expand benefits to nontraditional workers.

- ▶ Administrative costs would be covered by a portion of the employer contributions. Once the Secure Choice program is up and running, the cost of administering this eligibility expansion should be marginal. The fiscal note for Washington State's Secure Choice Savings Program, which provides a good model to explore, estimated an approximately \$2.9 million total operating budget for the program's administrative fund from FY 2021-2023, mostly in salaries and wages.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

launching an employer education initiative on the risks of algorithmic hiring tools to prevent discrimination and promote diversity in hiring, and also explore the potential need to develop policy that would prohibit the use of discriminatory technology in hiring.

- ▶ The Task Force supports creating a proactive education campaign that informs employers about risk mitigation strategies and audits they should employ when considering the use of algorithmic hiring tools, as well as providing evidence-based guidance on how to choose software.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

launching an employer education initiative on the risks of algorithmic hiring tools to prevent discrimination and promote diversity in hiring, and also explore the potential need to develop policy that would prohibit the use of discriminatory technology in hiring

- ▶ The Task Force is also supportive of continuing to research potential policy solutions that would combat the use of tools that introduce discrimination into recruitment, interviewing, and hiring processes. Although so-called algorithmic hiring tools may reduce the cost and time of hiring and facilitate hiring with social distancing, some tools also perpetuate bias and discrimination in hiring.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

modernizing the Unemployment Insurance website.

- ▶ The Task Force supports efforts to make it easier to access Unemployment Insurance (UI) through modernized, user-friendly web applications for both the initial application of UI benefits, as well as weekly certification processes.
- ▶ The Administration is already taking action on this recommendation - the State of New Jersey has been selected by the U.S. Department of Labor as one of two states to partner with the federal government to design, build, and pilot a new website with input from the public to ensure the best possible experience for benefit seekers.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

creating new platforms to make it easier for workers to obtain the benefits to which they are entitled.

- ▶ The Task Force believes that the State should improve the retail experience of government and launch a new website that makes it easy for workers — including those who lost their jobs or are seeking to advance their careers — to seamlessly access the services and benefits offered by the State as well as information pertaining to their rights.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

advancing development of the New Jersey Career Network, a virtual coaching program to help workers know their rights, develop new skills, and get back to work faster.

- ▶ To help the growing number of unemployed find high-quality jobs with benefits, the State is developing a digital coaching platform to guide the unemployed in their search for employment in an effort to increase the number of people in jobs with benefits. In addition to guiding the job search, the platform will also provide access to mental health and other types of support services.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

developing integrated and transparent data systems across agencies to promote better understanding of the labor market.

- ▶ The Task Force believes that the State should invest in the modernization of interagency data-sharing systems, such as those being proposed for permit modernization in the FY22 budget, and make concerted efforts to surface key labor market data in a user-friendly and accessible manner.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

making it easier for businesses to start, maintain, and grow, and hire workers.

- ▶ The Task Force believes the State should continue to invest in efforts, such as the creation and expansion of Business.NJ.gov, that streamline access to the information and services that are required to start, operate, and grow a business in New Jersey, while simultaneously improving customer service delivery to businesses, and shortening the amount of time it takes to process licenses, permits, and certifications through increased interagency data-sharing and technology modernization.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

taking measures to promote and protect workers' right to organize recognizing the value that unions provide as a key entry point into the middle class.

- ▶ In alignment with the tenets of the Workforce Democracy Enhancement Act, signed by Governor Murphy in 2018, the Task Force supports exploring further steps that the State can take to protect union organizing and collective bargaining to ensure a healthy and prosperous future for workers in the Garden State.
- ▶ The Task Force recommends that the State take action to support Federal efforts to enhance union organizing and collective bargaining.



STRATEGIES AND RECOMMENDATIONS

EMPOWER WORKERS: Worker Rights and Benefits - Innovate to Safeguard, Enforce, and Deliver Worker Rights and Benefits, Take Advantage of New Tools to Help Workers and Businesses Receive Better Services

THE TASK FORCE RECOMMENDS

launching and implementing the Future of Work Accelerator - a 9-month program that will support innovations that advance New Jersey's workers' health and safety, improve access to benefits, strengthen training opportunities, and bolster worker voice.

- ▶ Through the Accelerator, which launched in the Fall of 2021, participants are receiving custom coaching, curated connections to national experts, introductions to funders and peers, and the opportunity to pilot worker-centric programs and practices in New Jersey. The Accelerator's inaugural cohort was open to startups, entrepreneurs, non-profits, public sector institutions and employees, unions, and grassroots organizations interested in promoting innovative solutions.



STRATEGIES AND RECOMMENDATIONS

PROTECT WORKERS: Health and Safety - Use New Technology to Protect Worker Health and Safety

THE TASK FORCE RECOMMENDS

empowering NJDOL to become a 21st-century regulator, expanding its strategic enforcement capabilities with better access to data and tools so the agency can better enforce worker safety laws.



STRATEGIES AND RECOMMENDATIONS

PROTECT WORKERS: Health and Safety - Use New Technology to Protect Worker Health and Safety

THE TASK FORCE RECOMMENDS

investing in entrepreneurial businesses and nonprofits that promote worker safety.

- ▶ The Task Force supports leveraging new economic development programs, such as the New Jersey Innovation Evergreen Fund and other programs emerging from the State's Economic Recovery Act to encourage the growth of innovative Garden State companies advancing solutions in worker and workplace safety.



ACKNOWLEDGEMENTS

The Task Force would like to acknowledge the dozens of current and former team members, subject matter experts, and the thousands of workers of New Jersey who contributed to this report and the Task Force's work. A special thanks is owed to team members who helped facilitate the Task Force's operations, the creation of this body of work, and the advancement of initiatives that will positively impact the lives of workers in New Jersey for years to come:

- Tara Colton
- Kathleen Coviello
- Rahul Daswani
- Joe DeLaTorre
- Anirudh Dinesh
- Kai Feder
- Aaron R. Fichtner
- Dane Gambrell
- Rod Glover
- Diana Gonzalez
- Lesley Hirsch
- Richard Kasmin
- Josh Kellermann
- Brianna Keys
- Kathy Krepcio
- Suzi LeVine
- Mike Ritzius
- Jeffrey Oakman
- Pamela Loprest
- Auta Main
- Edward Paulino
- Shyamala Ramakrishna
- William M. Rodgers III
- David Rolf
- Brian Sabina
- Rebecca Saldaña
- Robb Sewell
- Natalie Spievack
- Roberto Soberanis
- Jessica Starace
- Dennis Zeveloff



ENDNOTES

- ▶ **International Labour Organization, Work for a Brighter Future - Global Commission on the Future of Work**, January 2019, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_662410.pdf
- ▶ **Aspen Institute, Job Quality: A Statement of Purpose, Dec. 2017**, <https://www.aspeninstitute.org/blog-posts/job-quality-statement-of-purpose/#:~:text=A%20quality%20job%20means%20one%27s,opportunities%20to%20learn%20and%20grow.>
- ▶ **US Census Bureau, American Community Survey Brief, Sep. 2020**, <https://www.census.gov/content/dam/Census/library/publications/2020/acs/acsbr20-03.pdf>
- ▶ **Data USA, New Jersey State Profile, accessed April 2021**, <https://datausa.io/profile/geo/new-jersey>
- ▶ **United for ALICE, New Jersey State Overview, 2018**, <https://www.unitedforalice.org/state-overview/NewJersey>
- ▶ **NJ Department of Labor and Workforce Development, Weekly UI Claimant Characteristics Reports, Week ending in 3/13/2021**, <https://nj.gov/labor/lpa/employ/uirate/Weekly%20UI%20Claimants/Claimants%20week%20ending%20031321%20NC.pdf>
- ▶ **Axios, Axios-Ipsos Coronavirus Index: Rich sheltered, poor shafted amid virus, April 2020**, <https://www.axios.com/axios-ipsos-coronavirus-index-rich-sheltered-poor-shafted-9e592100-b8e6-4dcd-ae00-a6516892874b.html>
- ▶ **United States Census Bureau, Small Business Pulse Survey**, Collection date 4/18/2021, <https://portal.census.gov/pulse/data/#data>
- ▶ **United States Census Bureau, Small Business Pulse Survey**, Collection date 4/18/2021, <https://portal.census.gov/pulse/data/#data>
- ▶ **United States Census Bureau, Small Business Pulse Survey**, Collection date 4/18/2021, <https://portal.census.gov/pulse/data/#data>
- ▶ **Opportunity Insights Economic Tracker**, Data from January 15 to April 23, <https://www.tracktherecovery.org/>
- ▶ **Opportunity Insights Economic Tracker**, Data from January 15 to April 23, <https://www.tracktherecovery.org/>
- ▶ **O'Dea, Collen. New figures show how deadly COVID-19 is for Blacks, Hispanics, Asians in NJ**, NJ Spotlight News, February 1, 2021, <https://www.njspotlight.com/2021/02/covid-19-death-rates-minorities-communities-of-color-black-hispanic-asian/>
- ▶ **New Jersey COVID-19 Dashboard**, Data from May 25, 2021, https://www.nj.gov/health/cd/topics/covid2019_dashboard.shtml
- ▶ **CompTIA, Strong Decade of Growth for NJ Technology Industry**, May 2020, <https://njbmagazine.com/njb-news-now/strong-decade-of-growth-for-nj-technology-industry/#:~:text=Net%20tech%20employment%20in%20New,nearly%2016%2C000%20tech%20business%20establishments.>



ENDNOTES

- ▶ **The average wage for tech workers was \$133,942 in 2019, compared to a statewide average of \$67,040 for all industries** (NJ Technology Industry Cluster Winter 2020-2021, NJ Bureau of Labor Market Information, Sep. 2020, <https://www.nj.gov/labor/lpa/pub/empecon/technology.pdf>)
- ▶ **According to Choose New Jersey, the New York/New Jersey region ranks #2 in employment for software and application developers and #3 for cybersecurity analysts.** (Choose New Jersey, <https://www.choosenj.com/key-industries/technology/>)
- ▶ Moretti, Enrico. **The New Geography of Jobs.** Boston: Houghton Mifflin Harcourt, 2012. Print.
- ▶ Jamshed Iqbal et al., **Robotics Inspired Renewable Energy Developments: Prospective Opportunities and Challenges**, Dec 2019, https://www.researchgate.net/publication/337716167_Robotics_Inspired_Renewable_Energy_Developments_Prospective_Opportunities_and_Challenges
- ▶ David Autor, David Mindell, Elisabeth Reynolds, **The Work of the Future: Building Better Jobs in an Age of Intelligent Machines**, Nov. 2020, <https://workofthefuture.mit.edu/research-post/the-work-of-the-future-building-better-jobs-in-an-age-of-intelligent-machines/>
- ▶ McKinsey Global Institute, **Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages**, Nov 2017, <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>
- ▶ Pew Research Center, **The Future of Jobs and Jobs Training, May 2017**, <https://www.pewresearch.org/internet/2017/05/03/the-future-of-jobs-and-jobs-training/>
- ▶ **Brookings, Automation and Artificial Intelligence: How Machines Are Affecting People and Places, January 2019**, https://www.brookings.edu/wp-content/uploads/2019/01/2019.01_BrookingsMetro_Automation-AI_Report_Muro-Maxim-Whiton-FINAL-version.pdf
- ▶ **New Jersey Advanced Autonomous Vehicle Task Force, Final Report, March 2020** https://www.senatenj.com/uploads/NJ-AVTaskForceFinalReport_v03042020.pdf p.31
- ▶ **McKinsey Global Institute, The future of work after COVID-19, Feb 2021**, <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>
- ▶ **MIT, Study finds stronger links between automation and inequality, May 2020**, <https://news.mit.edu/2020/study-inks-automation-inequality-0506>



- ▶ **Pew Research Center, For most U.S. workers, real wages have barely budged in decades, Aug 2018**, <https://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/>
- ▶ **Bloomberg, Low Wage Jobs Lose Out When Tech Jobs Gain, Aug. 2019**, <https://www.bloomberg.com/news/articles/2019-08-08/low-wage-workers-lose-out-when-tech-jobs-gain>
- ▶ **AFL-CIO Commission on the Future of Work and Unions, Report to the AFL-CIO General Board, Sep. 2019**, <https://aflcio.org/reports/afl-cio-commission-future-work-and-unions>
- ▶ **AFL-CIO Commission on the Future of Work and Unions, Report to the AFL-CIO General Board, Sep. 2019**, <https://aflcio.org/reports/afl-cio-commission-future-work-and-unions>
- ▶ **Brookings Institute, How employers use technology to surveil employees, Jan 2021**, <https://www.brookings.edu/blog/techtank/2021/01/05/how-employers-use-technology-to-surveil-employees/>
- ▶ **Philip Hunter, Remote working in research, Dec. 2018**, <https://www.embopress.org/doi/full/10.15252/embr.201847435>
- ▶ **US Bureau of Labor Statistics, Economy at a Glance, Feb 2020** https://www.bls.gov/eag/eag.nj.htm#eag_nj.f.p
- ▶ **National Women's Law Center, Equal Pay for Latinas, Oct. 2018**, <https://nwlc.org/wp-content/uploads/2017/10/Equal-Pay-for-Latina-Women-2018-English.pdf>
- ▶ **NJISJ, Freed From Debt: A Racial Justice Approach to Student Loan Reform in NJ**, https://d3n8a8pro7vhmx.cloudfront.net/njisj/pages/689/attachments/original/1593521244/Freed_From_Debt_Report.pdf?1593521244; and Urban Institute, Debt in America: An Interactive Map, https://apps.urban.org/features/debt-interactive-map/?type=overall&variable=pct_debt_collections



- ▶ **21 percent of student loan holders in majority non-white communities in Essex County (where Newark is located) are in default, compared to four percent in majority-white communities in the county. In Camden County, almost a quarter of borrowers in majority non-white are in default compared to eight percent in majority-white communities.** (NJISJ, Freed From Debt: A Racial Justice Approach to Student Loan Reform in NJ, https://d3n8a8pro7vhmx.cloudfront.net/njisj/pages/689/attachments/original/1593521244/Freed_From_Debt_Report.pdf?1593521244; and Urban Institute, Debt in America: An Interactive Map, https://apps.urban.org/features/debt-interactive-map/?type=overall&variable=pct_debt_collections)
- ▶ **NJISJ, Freed From Debt: A Racial Justice Approach to Student Loan Reform in NJ**, https://d3n8a8pro7vhmx.cloudfront.net/njisj/pages/689/attachments/original/1593521244/Freed_From_Debt_Report.pdf?1593521244
- ▶ **BLS, Expanded State Employment Status Demographic Data**, 2020 Annual Averages. <https://www.bls.gov/lau/ex14tables.htm>
- ▶ i. ii. iii. **New Jersey Department of Labor, New Jersey Initial Unemployment Claims by Industry** - week ending 10/24/20, <https://nj.gov/labor/lpa/employ/uirate/Weekly%20UI%20Claimants/Claimants%20week%20ending%20102420%20NC.pdf>
- ▶ **Educational Attainment Data for New Jersey**, American Community Survey 2020.
- ▶ **National Science Board, Science and Engineering Degrees as a Percentage of Higher Education Degrees Conferred**, April 2021, <https://nces.nsf.gov/indicators/states/indicator/se-degrees-to-all-higher-education-degrees/map/2019>
- ▶ **Setting a North Star: Motivations, Implications, and Approaches to State Postsecondary Attainment Goals**. <https://sr.ithaka.org/publications/motivations-implications-and-approaches-to-state-postsecondary-attainment-goals/>
- ▶ **National Science Board, Bachelor's Degree Holders in the Labor Force** (Percent), April 2021, <https://nces.nsf.gov/indicators/states/indicator/bachelors-degree-holders-in-labor-force>
- ▶ **NJ Office of the Secretary of Higher Education, NJ State Plan for Higher Education: Where Opportunity Meets Innovation**. <https://www.nj.gov/highereducation/stateplan.shtml>
- ▶ **National Science Board, Individuals in Science and Engineering Occupations as a Percentage of All Occupations** | State Indicators, Nov. 2020, <https://nces.nsf.gov/indicators/states/indicator/se-occupations-to-all-occupations/table>



- ▶ **New Jersey Department of Labor and Workforce Development, New Jersey's Health Care Industry Cluster** Winter 2020-2021, Oct. 2020, Winter 2020-2021, <https://www.nj.gov/labor/lpa/pub/empecon/healthcare.pdf>
- ▶ **NJ Economic Development Authority, Life Science**, accessed April 2021, <https://www.njeda.com/life-science/>
- ▶ **NJ Economic Development Authority, Finance and Professional Services**, accessed April 2021, <https://www.njeda.com/finance/>
- ▶ **NJ Economic Development Authority, Transportation and Logistics**, accessed April 2021, <https://www.njeda.com/transportation-and-logistics/>
- ▶ **New Jersey Department of Labor and Workforce Development, New Jersey's Manufacturing Industry Cluster Winter 2020-2021**, Oct. 2020, Winter 2020-2021, <https://www.nj.gov/labor/lpa/pub/empecon/advmfg.pdf>
- ▶ **NJ Economic Development Authority, Advanced Manufacturing**, accessed April 2021, <https://www.njeda.com/advanced-manufacturing/>
- ▶ **NJ Economic Development Authority, Non-retail food and beverage**, accessed April 2021, <https://www.njeda.com/non-retail-food-and-beverage/>
- ▶ **AP News, NJ shatters its own sports betting record: \$748 bet in Sept, Oct. 2020**, <https://apnews.com/article/virus-outbreak-atlantic-city-new-jersey-football-sports-betting-d2e7fe10580885ffc28bd7ad68f6a656>
- ▶ **McKinsey Insights, A rolling disruption: COVID-19's implications for private equity and portfolio companies**, Sep. 2020, <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/a-rolling-disruption-covid-19s-implications-for-private-equity-and-portfolio-companies>
- ▶ Also: market research company **eMarketer projects that global retail sales will drop 5.7% in 2020 compared to the previous year. Between March and August 2020, New Jersey lost 51,900 (or 5.8%) jobs in the Trade, Transportation, and Utilities sector, which includes retail; A working paper from the National Bureau of Economic Research estimates that only 4% of Accomodation and Food Service jobs and 14% of Retail jobs can be done from home. (National Bureau of Economic Research, How Many Jobs Can be Done at Home?, April 2020, https://www.nber.org/system/files/working_papers/w26948/w26948.pdf)**



ENDNOTES

- ▶ **Brookings, Automation and Artificial Intelligence: How machines are affecting people and places**, <https://www.brookings.edu/research/automation-and-artificial-intelligence-how-machines-affect-people-and-places/>
- ▶ **Brookings, The differing impact of automation on men and women's work**, Sept. 2019, <https://www.brookings.edu/blog/up-front/2019/09/11/the-differing-impact-of-automation-on-men-and-womens-work/>
- ▶ **Economic Policy Institute, A profile of union workers in state and local government**, June 2018, <https://www.epi.org/publication/a-profile-of-union-workers-in-state-and-local-government-key-facts-about-the-sector-for-followers-of-janus-v-afscme-council-31/>
- ▶ **Economic Policy Institute, State of Working America Data Library**, Updated February 2021, <https://www.epi.org/data/#?subject=unioncov>
- ▶ **Economic Policy Institute, The number of workers represented by a union held steady in 2019**, while union membership fell, January 2020, <https://www.epi.org/publication/2019-union-membership-data/>
- ▶ **McKinsey Global Institute, Independent work: Choice, necessity, and the gig economy**, Oct. 2016, <https://www.mckinsey.com/featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>
- ▶ **Unemployment Insurance Modernization Act. 117th Congress**. Introduced April 14, 2021. [https://www.finance.senate.gov/imo/media/doc/4.13.21%20UI%20Reform%20Discussion%20Draft%20\(GOE21427\).pdf](https://www.finance.senate.gov/imo/media/doc/4.13.21%20UI%20Reform%20Discussion%20Draft%20(GOE21427).pdf)
- ▶ **Governor Murphy's Employer Misclassification Task Force Report**, July 2019, <https://www.nj.gov/labor/assets/PDFs/Misclassification%20Report%202019.pdf>
- ▶ **McKinsey Global Institute, Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation**, December 2017, https://www.mckinsey.com/~media/mckinsey/industries/public%20and%20social%20sector/our%20insights/what%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/mgi%20jobs%20lost-jobs%20gained_report_december%202017.pdf
- ▶ **Pew Research Center, The State of American Jobs**, October 2016, <https://www.pewresearch.org/social-trends/2016/10/06/the-state-of-american-jobs/>



- ▶ Carl E. Van Horn and Maria Heidkamp, **Older Workers, Precarious Jobs, and Unemployment: Challenges and Policy Recommendations**, Generations: Quarterly Journal of the American Society on Aging, (Volume 3, No 3) Fall 2019, <https://online.flippingbook.com/view/876597/22/>
- ▶ **Heldrich Center for Workforce Development, About Long-term Unemployment**, accessed April 2021, <https://www.newstartcareernetwork.org/About-Us/About-Long-term-Unemployment>
- ▶ **US Bureau of Labor Statistics, Alternative Measures of Labor Underutilization for States**, 2019 Annual Averages, Jan. 2020, <https://www.bls.gov/lau/stalt19q4.htm>
- ▶ **The Center for Law and Social Policy, The Involuntary Part-time Work and Underemployment Problem in the U.S.**, Aug. 2020, https://www.clasp.org/sites/default/files/publications/2020/08/GWC2029_Center%20For%20Law.pdf
- ▶ **Jim Edwards, The 'gig economy' has broken a fundamental link in capitalism that was good for workers**, May 2017, <https://www.businessinsider.com/low-unemployment-wage-increases-gig-economy-2017-5?r=UK>
- ▶ **NJ Office of the Secretary of Higher Education, NJ State Plan for Higher Education: Where Opportunity Meets Innovation.** <https://www.nj.gov/highereducation/stateplan.shtml>
- ▶ **State of New Jersey, Jobs NJ: Developing Talent to Grow Business in the Garden State**, January 2020, https://www.njeda.com/wp-content/uploads/2021/02/JobsNJ_FullPlan.pdf
- ▶ **The Governor's FY2022 Budget Budget in Brief**, <https://www.nj.gov/governor/news/news/562021/20210223c.shtml>