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# TASK FORCE RESOURCES

In addition to the Task Force’s Roadmap and Recommendations, the following resources represent the dozens of reports, studies, papers and other literature that the Task Force has examined as part of its survey of existing research on the Future of Work. Additionally, the Task Force independently commissioned six academic research papers intended to further its understanding of the localized impacts of the Future of Work within the Garden State - these papers are also listed below.

Roadmap and  
Recommendations

Original and  
Commissioned  
Research

Additional  
Resources

Future of Work  
Thought Leaders

**Are we missing something? If there is a specific report or study that you think the Task Force should review or consider, please email it to [fow@innovation.nj.gov](mailto:fow@innovation.nj.gov)**

## ROADMAP AND RECOMMENDATIONS

### Roadmap and Recommendations

Appointed by Governor Murphy in 2019, the Future of Work Task Force was established 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. This Roadmap and Recommendations highlights 19 core recommendations that underscore the State’s need to invest in policies, platforms, and programs that respond to both the challenges and the opportunities technology creates to foster worker rights, worker safety and lifelong learning. Many of the Roadmap’s recommendations have already been implemented.

[Download the Roadmap and Recommendations](#)

## ORIGINAL AND COMMISSIONED RESEARCH

The Original and Commissioned Research and the Additional Resources listed below are not endorsed by the Task Force, nor are they intended to be recommendations. Instead, they are meant to inform discussions about policy solutions pertaining to the Future of Work

### **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](#)

### **Technical Advances in Background Checking and the Impact on Work Opportunities in New Jersey**

*Dr Sarah Lageson*

Rutgers School of Law

Dr. Lageson describes the impact of big data collection and storage on New Jersey workers as a result of the massive rise in criminal background checks for employment screening. Experian Public Records alone claims its repository holds 600 million unique criminal records, covering 90% of the U.S. population. However, the myriad government agencies and private companies housing data used for background checking routinely report arrests that do not lead to charges and criminal charges that result in dismissal. Considering that, in 2015 alone, New Jersey police made 264,250 arrests (FBI, 2015) and that New Jersey courts processed 733,201 criminal cases in 2010 (National Center on State Courts, 2019), over one million criminal records are created per year in New Jersey, most of which are available to employers and the public 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 available at no cost; 2) Reclassify pre-conviction records (such as arrest logs, booking photos, and charging documents) as confidential until a criminal conviction; 3) Regulate criminal record data and background check companies. The state should only allow consumer reporting agencies to operate in New Jersey that routinely update records with expungement orders served by the state (not the petitioner).

[Download the Report](#)

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

*Daniel Kuehn*

The Urban Institute

In this paper, Daniel Kuehn argues that policymakers should target training for jobs that are insulated from automation and have high growth prospects. Based on research using data from the federal Registered Apprenticeship Partners Information Data System (RAPIDS) and Frey and Osborne's widely cited study of the technological change risk for detailed U.S. occupational groups, Kuehn finds that a plurality of New Jersey apprentices (38.69%) are or have been registered in the least secure category of occupations facing high automation risk and low growth job prospects. These jobs, while essential to today's economy, may face disruption in the future and do not offer the prospect of broader growth in high-quality employment. A key conclusion of this report is that workforce development strategies do not need to abandon "traditional" trades to address the needs of emerging technology and the risks of automation. Rather, traditional apprenticeable trades, particularly electricians and plumbers, are well positioned for job growth and can avoid the risks associated with automation. The expansion of apprenticeships to non-traditional trades should be pursued as a strategy for scaling up apprenticeship, not as an effort to move past or neglect the traditional building trades. Kuehn recommends rebalancing the traditional trades away from occupations like carpentry and roofing, which have worse job growth prospects and higher automation risk, and toward occupations like electrical work and plumbing. He suggests having state (distinct from federal) apprenticeship coordinators play a significant role in preparing for change. He also calls for a greater focus on getting women into apprenticeships and an effort to improve the paperwork requirements for scaling apprenticeship programs.

[Download the Report](#)

[Download Figures and Tables](#)

## **The Impact of Automation and Smart Technology on the Workforce and Economic Growth of the New Jersey Manufacturing Industry: The Food Manufacturing Sector as a Case Study**

*Jessica Paolini, Richard McArdle, Denise Bartone*

Rutgers University Food Innovation Center

The authors focus on the impact of enhanced robotics, additive composite (3D) assembly, sensor-connected equipment, and cloud-enabled computing on food manufacturing. While there is general agreement that these technologies can benefit a company's bottom line, there is less certainty about the consequences for workers. Impacts to the 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 as an important part of New Jersey industry, a rewarding career, and a way to contribute; 5) The State, universities and industry should coordinate training and resources; 6) The Task Force should share the information in this report with employers, workers and students.

[Download the Report](#)

## **A New Jersey Big Data Workforce Roadmap: An Examination of the Challenges and Opportunities for New Jersey's Workforce to Successfully Compete in the Data-Driven Economy**

New Jersey Big Data Alliance

In this paper, the research team representing the New Jersey Big Data Alliance examined advanced computing, big data and analytics technologies—skill sets that will affect the future of work in New Jersey—and the type and extent of the impact of these changes on key industry clusters in the state, offering an evidence-based roadmap for New Jersey to prepare workers and industry to compete in the data-driven economy. The report details the demand for data science talent, especially machine and deep learning, in a wide range of industries from biotech to advanced manufacturing. Those data science skills are not simply computational, but involve how to ask smart questions, wrangle relevant data, and uncover and communicate insights. Thus, the blend of technical skills with writing and problem-solving skills, teamwork, and collaboration is crucial. The authors advocate, among many recommendations, for developing a vision for K-12 data science education in New Jersey; requiring the teaching of data science in all two- and four-year colleges/universities; providing more hands-on training through collaboration

between academia and industry; and creating a clear AI/Deep Learning education and industry development strategy that involves relevant State departments, higher education representatives, and key employer organizations.

[Download the Report](#)

## **The Future of Work in New Jersey: Care Workers and the Gig Economy**

*Yana van der Meulen Rodgers and Elaine Zundl*

Rutgers University

The authors report that, due to the changing demographic composition of New Jersey's population and the increasing need for people to care for the elderly and individuals with disabilities, the number of domestic workers in the state has increased by almost 50% since 2003, and the majority of those workers are home health aides. Such domestic workers earn substantially less than individuals who work in occupations outside of private households, and domestic workers have seen virtually no increase in their real wages since 2003. Moreover, domestic workers in New Jersey are predominantly women, immigrants, and non-whites, even more so than the national average. A recurring issue is wage theft, in which domestic workers receive wages below the minimum, have their wages withheld arbitrarily and without recourse, or are not paid overtime. A lack of formal contracts and unpredictable work schedules are also common problems. While Internet-based technology has contributed to the exclusion of those who are offline from searching for and finding work, new platforms are emerging, designed with and for domestic workers, to help them find work. However, household employers who hire domestic workers directly are half as likely (compared to employers who used an agency) to acknowledge that their workers are covered by minimum wage and overtime regulations. Policy options to address this problem include 1) better education and outreach efforts to inform households of the laws covering domestic workers and 2) legislation designed specifically to prevent wage theft and increase employer liability in wage recovery lawsuits.

[Download the Report](#)

## **The Green Transition: Renewable Energy Technology, Climate Change Mitigation, and the Future of Work in New Jersey**

*Todd E. Vachon, Ph.D.*

School of Management and Labor Relations, Rutgers University

In this paper, Dr. Vachon argues that meeting the goals of New Jersey's Global Warming Response Act will require a rapid transition toward renewable energy technologies that will alter the future of work in New Jersey. This report provides insight into the following questions: What is the magnitude and nature of the new jobs that are likely to be created? What types of skills will be required? What magnitude of job displacement can be expected? What steps can be taken to

ensure that efforts to address climate change are reducing, rather than exacerbating, existing problems of social and economic inequality in the state? Given the breadth of technologies explored in this report, the findings should be considered a preliminary analysis and an invitation for further modeling around the likely impacts of each specific technology. Key findings include: (1) Investments in renewable technologies will create tens of thousands of jobs across dozens of occupations in New Jersey, particularly in construction and blue-collar occupations; (2) the green transition will require investments in education and worker training; (3) transitioning to 100% renewable energy will reduce employment in fossil fuel industries; (4) the green economy is already more diverse than the old energy sector, but still stratified; and (5) with the right policy mix, the green transition can be a vehicle for addressing not only climate change but also many of the state's existing social, economic, and environmental inequalities.

[Download the Report](#)

[Download Figures and Tables](#)

## ADDITIONAL RESOURCES

### **Mitigating Bias in Algorithmic Hiring: Evaluating Claims and Practices**

*Manish Raghavan, Solon Barocas, Jon Kleinberg, and Karen Levy*

ACM Conference on Fairness, Accountability, and Transparency. Dec 2019

Analyzes the claims and practices of companies offering algorithms for employment assessment, focusing particularly on efforts to detect and mitigate bias. Discusses how algorithmic de-biasing techniques interface with, and create challenges for, antidiscrimination law.

Read the full article [here](#).

### **Report of the AFL-CIO Commission on the Future of Work and Unions**

AFL-CIO. September 2019

Assesses the state of labor organizing and details plans to increase the bargaining power of working people, ensure that gains from new technology and public policy are more equitably distributed, and explore new ways to engage and attract a workforce that is growing increasingly diverse.

Read the full article [here](#).

## **A Fair Workweek in New Jersey**

AFL-CIO

Describes the results of a national survey of retail and food service workers on how unpredictable schedules and inadequate part-time hours harm workers, particularly women and people of color. Proposes policies for a "family-sustaining workweek" in New Jersey comprising predictable hours; an opportunity to work enough hours to make ends meet; adequate rest in between shifts; and flexibility without fear of termination.

Read the full article [here](#).

## **The Future of Work: The Effect of Job Automation on African-American and Latino Workers in Three Cities**

*Hill, Zoelene, Patrick Mason, Stephanie Mash Sykes, and David J. Harris*

African Mayors Association. August 2019

Focuses on the impact of job automation on African-American and Latino workers, conducting case studies in three cities: Gary Indiana; Columbia, South Carolina; and Long Beach, California. The report finds that job loss will be unequally distributed and will have a greater impact on African-American and Latino populations. The report offers a list of recommendations for developing and expanding education and training programs to prepare these communities for the future of work.

Read the full article [here](#).

## **It's Not the 'Future of Work,' It's the Future of Workers That's in Doubt**

*Sarita Gupta, Stephen Lerner, and Joseph A. McCartin*

The American Prospect, August 2018

Offers a critique of narratives and perspectives that dominate existing discourse on the future of work and offers actionable suggestions focused on improving workers' voices in the workplace and in democracy.

Read the full article [here](#).

## **Aspen Institute Future of Work Initiative State Policy Agenda**

*Erin Mcalister*

The Aspen Institute Future of Work Initiative. February 2019

Provides a list of policy options to address issues relating to the future of work. Each policy option includes background info, proposal details, and examples where these

policies have been implemented.

Read the full article [here](#).

## **Automation and a Changing Economy. Part II: Policies For Shared Prosperity**

*Connor McKay, Ethan Pollack, and Alastair Fitzpayne*

The Aspen Institute Future of Work Initiative. April 2019

Outlines a policy agenda for addressing the challenges and opportunities posed by automation. Describes policy goals, followed by in-depth explanations and examples of specific solutions within broader policy goals.

Read the full article [here](#).

## **Designing Portable Benefits: A Resource Guide for Policymakers**

*Libby Reder, Shelly Steward, and Natalie Foster*

The Aspen Institute Future of Work Initiative. June 2019

Catalogs the current benefit structure by worker status, addressing which benefits each worker type can receive based on existing laws. Offers approaches to advancing portable benefits. Poses important design questions and options for developing a portable benefits program.

Read the full article [here](#).

## **The Future of Work: A Guide for Transatlantic Policymakers**

*Braam, Irene, Anthony Silberfeld, and Emily Rodriguez*

Bertelsmann Foundation and Information Technology & Innovation Foundation.  
January 2019

Seeks to condense existing research into the core ingredients of future of work policy. Presents analysis of four case studies: France, Germany, Spain, and the United States. Highlights key challenges and opportunities for each country. Offers key takeaways for transatlantic policymakers.

Read the full article [here](#).

## **Setting the Stage for the Future of Work: Deep Shifts and Great Uncertainties**

*Jed Kolko*

Bloomberg and New America. June 2016

As part of the Shift Commission on Work, Workers, and Technology, presented at the Bloomberg Technology Conference, this article and the linked presentation highlight imminent shifts and uncertainties that are shaping the future of work.

Read the full article [here](#).

## **How Computer Automation Affects Occupations: Technology, Jobs, and Skills**

*Bessen, James*

Boston University School of Law, Law and Economics Research Paper. 2016

Investigates relationships between technology and occupations to explore whether computers are related to job losses or other sources of wage inequality. Rejects computers as a source of significant net technological unemployment or job polarization, although computerized occupations substitute for other occupations, shifting employment and requiring new skills.

Read the full article [here](#).

## **Automatic Reaction – What Happens to Workers at Firms that Automate?**

*Bessen, James, Maarten Goos, Anna Salomons, and Wiljan Van den Berge*

Boston University School of Law, Law and Economics Research Paper. 2019

Estimates the impacts of automation on individual workers by combining Dutch micro-data with a direct measure of automation expenditures covering firms in all private non-financial industries over 2000–2016. Finds that, in contrast with some literature on mass layoffs, the effects of automation are more gradual and automation displaces far fewer workers, both at the individual firms and in the workforce overall.

Read the full article [here](#).

## **Internet Access in New Jersey: Stats & Figures**

BroadbandNow. March 2019

Provides information on the current level of broadband access for each state.

Read the full article [here](#).

## **Automation: A guide for policymakers**

*Bessen, James, Maarten Goos, Anna Salomons, and Wiljan Van den Berge*

Brookings. January 2020

Reviews the evidence from recent studies and reports on a new paper written about the purported effects of automation on mass unemployment. Suggests that the apocalyptic predictions may have it wrong, although this does not mean that automation is not highly disruptive. The challenge of automation in the near future may not be mass unemployment but rather a greater level of worker transitions.

Read the full article [here](#).

## **Automation and Artificial Intelligence: How machines are affecting people and places**

*Mark Muro, Robert Maxim, and Jacob Whiton*

Brookings. January 2019

The report focuses on areas of potential occupational change, including analysis beyond national topline statistics to explore industry, geographical, and demographic variations. The report concludes by suggesting a comprehensive response framework for national and state/local policymakers.

Read the full article [here](#).

## **Contingent and Alternative Employment Arrangements**

Bureau of Labor Statistics. 2017

Provides data on the current level of contingent and alternative employment arrangements in the US. Report contains demographic characteristics, occupation and industry information, job preferences, and compensation statistics for workers in those categories.

Read the full article [here](#).

## **Winning With a Flexible Workforce**

Catalant. 2016

Discusses how companies' increasing reliance on flexible talent-access platforms (gig economy) and independent workers requires a rigorous approach to managing this new form of work.

Read the full article [here](#).

## **How Automated Tools Discriminate Against Black Language**

*Anna Woorim Chung*

Center for Civic Media. January 2019

Analyzes the ways in which automated tools interpret African-American Vernacular English (AAVE) and racial identifiers to criminalize, surveil, and marginalize Black people in online spaces.

Read the full article [here](#).

## **How Robots Are Beginning to Affect Workers and Their Wages**

*William M. Rodgers III and Richard Freeman*

The Century Foundation. October 2019

Analyzes the impact of robots in the years following the Great Recession, from 2009 to 2017. Concludes that 1) there is yet little evidence that robotic growth is leading to widespread job displacement; 2) certain industries, regions, and of workers disproportionately suffer the negative effects of this growth; and 3) the economic boom of the past decade has effectively "masked" some of the impacts that robots have had on workers.

Read the full article [here](#).

## **Should Workers Facing Technological Change Have a Right to Training?**

*Andrew Stettner*

The Century Foundation. September 2019

In light of little evidence that corporations are taking responsibility for training their existing workforces in using new technologies, suggests that new legislation should require employers to give workers and their representatives notice of the introduction of new technologies that would result in either the loss of employment or a fundamental change in a worker's job description, as well as to take on some of the burden of retraining or transitioning workers.

Read the full article [here](#).

## **Healing Together: The Labor–Management Partnership at Kaiser Permanente**

*Thomas A. Kochan, Adrienne Eaton, Robert B. McKersie, and Paul S. Adler*

Cornell University Press. 2009

Chapter 9, "Partnership and HealthConnect," describes Kaiser Permanente's efforts to create automated healthcare records and explores the potential effects of worker and union participation in such an investment on healthcare delivery. Ample historical and contemporary evidence suggests that work practices and workforce responses to technological changes are crucial both for introducing new technologies and for realizing their potential.

Read the full article [here](#).

## **The Work Ahead: Machines, Skills, and U.S. Leadership in the Twenty–First Century**

*Edward Alden and Laura Taylor-Kate*

Council on Foreign Relations, April 2018

Presents findings on how the future of work will affect technology, innovation, growth, education, transition assistance, barriers to employment, and support for work in the new economy. Recommends ways to create better work opportunities, maintain the U.S.'s technological leadership, boost growth, ease the transition of students into the workforce, and create more opportunities.

Read the full article [here](#).

## **Redefine Work: The Untapped Opportunity for Expanding Value**

Deloitte Insights

Offers suggestions for companies to maximize the value of employees through a better understanding of the human capabilities that will be critical, and organizational transformation.

Read the full article [here](#).

## **The impact of the technological revolution on labour markets and income distribution**

*Matthias Bruckner, Marcelo LaFleur, and Ingo Pitterle*

Department of Economic & Social Affairs. Frontier Issues. July 2017

Provides an evidence-based analysis of the links between recent technological progress, labor markets, and inequality. Outlines long-term and recent trends in productivity and inequality. Answers questions about how technology will affect inequality and what policies will be needed for social protection.

Read the full article [here](#).

## **The Automation Readiness Index: Who Is Ready For The Coming Wave Of Automation?**

The Economist Intelligence Unit. 2018

Contains a new and original index built by the Economist Intelligence Unit. The index evaluates countries on a number of criteria to determine their preparedness for future automation disruptions. The report includes the list of categories used for evaluations. May provide a rubric for evaluating states, as well as a means to track progress.

Read the full article [here](#).

## **The State of American Wages**

*Gould, E.*

Economic Policy Institute. 2018

Provides data and statistics on hourly wage trends across the wage distribution and education attainment categories, highlighting important race- and gender-based disparities.

Read the full article [here](#).

## **Workers' rights protection and enforcement by state attorneys general**

*Gerstein, T.*

Economic Policy Institute. 2020

Recommends that state legislatures grant attorney general offices jurisdiction and fund positions to enforce workplace rights law; expand their involvement in this area using a range of their existing powers and authority; and build relationships with worker organizations and advocates to safeguard workers' rights in their states.

Read the full article [here](#).

## **The Future of Work: Skills and Resilience for a World of Change**

European Political Strategy Centre. June 2016

Presents trends of the future of work including gains, losses, and transformations, then discusses public policies to accommodate these changes in the workplace and in our work lives.

Read the full article [here](#).

## **European Social Partners Framework Agreement on Digitalisation**

European Social Partners. June 2020

Four cross-sectoral groups representing industry and labor across the EU—BusinessEurope, SMEUnited, European Centre of Employers and Enterprises, and the European Trade Union Confederation—agreed in the following June 2020 document on a framework to address digitalization in the world of work. The goal of the framework is to maximize the benefits & minimize the risks of integrating technology into the workplace.

Read the full article [here](#).

## **Pay for Success: How Emerging Finance Tools Are Supporting Workforce Development**

*Jeanne Milliken Bonds*

Federal Reserve Bank of Richmond. 2019

Discusses the Pay for Success ecosystem and challenges, and strategies for supporting workforce development policies. Pay for Success (PFS) programs provide

a potential means for financing, evaluating, and fostering innovation in workforce development programs.

Read the full article [here](#).

## **Workers, Protections, and Benefits in the U.S. Gig Economy**

*Seth D. Harris*

Global Law Review. September 2018

Considers work relationships in the online platform economy with a particular focus on independent workers' lack of individual bargaining power. Extends its bargaining power analysis to workers outside the online platform economy, including those currently classified as independent contractors. Articulates a set of principles that should guide policy makers in determining how to reform the worker classification system to address its ambiguities and the problematic social and economic outcomes it produces. Provides a menu of policy solutions with an assessment of how well each solution serves these principles.

Read the full article [here](#).

## **The Taylor Review of Modern Working Practices**

*Matthew Taylor, Greg Marsh, Diane Nicol, and Paul Broadbent*

Good Work. July 2017

Describes how to ensure quality of work; contextualizes the evolution of the labour market; examines flaws in the current legal framework for protecting workers; suggests improvements for vulnerable workers in an increasingly flexible market; focuses on employer responsibility and other ways to better the situations of self-employed or independent workers in the future.

Read the full article [here](#).

## **Career Pathways: Five Ways To Connect College And Careers**

*Anthony P. Carnevale, Tanya I. Garcia, and Artem Gulish*

Georgetown University Center on Education and the Workforce

Details five areas in which states can integrate education and workforce data to improve postsecondary education and training programs, connect learners and workers to career pathways, and satisfy employers' workplace needs. Report includes numerous examples of states that have pioneered programs across these five critical areas.

Read the full article [here](#).

## **A Proposal for Modernizing Labor Laws for Twenty-First-Century Work: “The Independent Worker”**

*Seth D. Harris and Alan B Krueger.*

The Hamilton Project. December 2015

Addresses the issues facing “independent workers” arising from the online gig economy and other trends. Offers a list of proposals for structuring benefits to make employers indifferent between independent worker and employee status.

Read the full article [here](#).

## **Beyond Automation**

*Thomas H. Davenport and Julia Kirby*

Harvard Business Review. June 2015

Proposes five approaches individuals can utilize to prepare for the rise of automation in their career field.

Read the full article [here](#).

## **Clean Slate for Worker Power: Building a Just Economy and Democracy**

*Sharon Block and Benjamin Sachs*

Harvard Law School Labor and Worklife Program. 2019

Proposes a fundamental redesign of labor law that would enable working people to create the collective economic and political power necessary to build an equitable economy and politics. Engages the work of more than 70 advocates, activists, union leaders, labor law professors, economists, sociologists, technologists, futurists, practitioners, workers, and students from around the world.

Read the full article [here](#).

## **Confronting Misclassification and Payroll Fraud: A Survey of State Labor Standards Enforcement Agencies**

*Mark Erlich and Terri Gerstein*

Harvard Law School Labor and Worklife Program. June 2019

Details the results of a written survey of labor standards enforcement agencies in twenty-seven states and follow-up interviews with representatives from nine states. Intended to help state labor standards agencies learn what is being done in other states; to establish some baseline practices that states should adopt, based on respondents' assessments; and to share innovative approaches that should be considered more broadly.

Read the full article [here](#).

## **Building the Pipeline: Assessing New Jersey's Talent Supply and Demand**

*Stephanie Holcomb, Maria Heidkamp, Kathy Krepcio, and William Mabe*

The John J. Heldrich Center for Workforce Development at Rutgers University. March 2018.

Presents findings on New Jersey's economy; examines the skills gap and factors contributing to hiring difficulties in the state. Provides recommendations to address workforce challenges.

Read the full article [here](#).

## **Women, Automation, and the Future of Work**

*Ariane Hegewisch, Chandra Childers, and Heidi Hartmann*

Institute for Women's Policy Research

Presents a comprehensive analysis of potential impacts of technological change on women's and men's employment in the US. Analysis includes divergent experiences of women of different races and ethnicities. The report includes a list of policy recommendations, including policies to improve skills development, create new opportunities in high-tech industries, and improve job and income security and job quality.

Read the full article [here](#).

## **Research Department Working Paper No. 13. New technologies: A jobless future or golden age of job creation?**

*Irmgard Nubler*

International Labour Office. November 2016

Develops a framework to explain the process of job destruction and creation by integrating insights from different traditions in economics. Focuses on understanding the process of expanding job creation.

Read the full article [here](#).

## **Research Department Working Paper No. 29. The Future of Work: A Literature Review**

*Thereza Balliester and Adam Elsheikhi*

International Labour Office. March 2018

Reviews existing literature on the future of jobs, job quality, social protection, wage and income inequality, and social dialog on industrial relations. Highlights the most important drivers and forecasts expected outcomes of the future of work as discussed in existing studies.

Read the full article [here](#).

## **World Employment Social Outlook Trends 2017**

*Stefan Kuhn, Santo Milasi, Richard Horne, and Sheena Yoon*

International Labour Organization. 2017

Summarizes global employment and social trends. Identifies structural factors contributing to negative trends in unemployment and income security for each region.

Read the full article [here](#).

## **The Online Platform Economy in 2018: Drivers, Workers, Sellers and Lessors**

*D Farrell, F. G.*

JPMorgan Chase Institute. 2018

Provides an economic analysis of the platform economy in the US, trends between 2013 and 2018, frequency of household interaction with platforms, breakdowns by

state, and a breakdown of the platform economy by sector (transportation, non-transport services, selling, leasing).

Read the full article [here](#).

## **The US Labor Market in 2050: Supply, Demand and Policies to Improve Outcomes**

*Harry J. Holzer and John LaFarge Jr.*

McCourt School of Public Policy, Georgetown University

Provides outlooks for labor supply, including labor force participation and demographic changes, and analyzes future job supply given the rise of automation and AI. The paper includes a number of policy recommendations.

Read the full article [here](#).

## **A Labor Market That Works: Connecting Talent with Opportunity in the Digital Age**

*J Manyika, Susan Lund, et al.*

McKinsey Global Institute. June 2015

Highlights the potential for online talent platforms to address coordination problems between job seekers and employers, creating real macroeconomic impact.

Provides a deeper understanding of how such platforms can affect labor markets.

Offers a list of policies that will help capture the full potential of these platforms.

Read the full article [here](#).

## **Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation**

*J Manyika, Susan Lund, et al.*

McKinsey Global Institute. 2017

Examines future trends in automation through 2030, including jobs that may be created and those likely to be automated. Offers insights into the likely workforce transition we could expect and its implications.

Read the full article [here](#).

## **The Work of the Future: Shaping Technology and Institutions**

MIT Task Force on the Work of the Future. 2019

Provides a framework for the MIT Task Force's efforts over the next year and examines several aspects of the interaction between work and technology. The authors' underlying premise is that work is intrinsically valuable to individuals and to society as a whole, and that we should seek to improve rather than eliminate it. Authors introduce broader concerns that motivated the Task Force's formation, including increasingly pessimistic public discourse around the subject of technology and work; report argues that this is a reflection of a decades-long disconnect between rising productivity and stagnant incomes for the majority of workers. Proposes policy frameworks to strengthen institutions, make crucial investments, and forge policies to ensure that the labor market of the 21st century enables workers to contribute and succeed.

Read the full article [here](#).

## **The Work of the Future: Building Better Jobs in an Age of Intelligent Machines**

MIT Task Force on the Work of the Future. 2020

Documents and diagnoses the challenges facing the U.S. labor market; surveys the technological frontier to draw lessons about the pace and direction of change and its likely impacts on employment, skill demands, and opportunity; synthesizes insights from work and technology to consider how policies and institutions should innovate to leverage technological and economic opportunities while surmounting the substantial challenges that lie ahead.

Read the full article [here](#).

## **ROBOTS AND JOBS: Evidence from US Labor Markets**

*Restrepo, D. A.*

National Bureau of Economic Research. 2017

Quantifies the effects of robotics on the labor market by analyzing several local labor markets. The study finds robust negative effects of robots on employment and wages across commuting zones.

Read the full article [here](#).

## **Reimagining Workforce Policy in the Age of Disruption: A State Guide for Preparing the Future Workforce Now**

National Governors Association. 2020

Shares knowledge and expertise on the technological disruptions affecting workers and workplaces; identifies the major disruptions and global forces shaping the future of work; presents 2020 policy agenda for preparing the future workforce.

Read the full article [here](#).

## **Race and Retirement Insecurity in the United States**

*Rhee, N.*

National Institute on Retirement Security. 2013

Analyzes retirement savings by race. The study finds that households of color have significantly less access to retirement plans on the job than do white households.

Read the full article [here](#).

## **The Retirement Crisis: Is it Worse Than We Think?**

*Rhee, N.*

National Institute on Retirement Security. 2013

Provides statistics on the state of US retirement assets with demographic breakdowns.

Read the full article [here](#).

## **A 21st Century Reemployment Accord.**

*Spiker, K.*

National Skills Coalition. 2020

Presents the National Skills Coalition's call for an inclusive economic recovery to the Covid-19 health crisis and its economic impact. Proposes a 21st Century Reemployment Accord – a commitment to workers and businesses to prepare workers who lose their jobs for new jobs of the 21st century, whether this job loss occurs because of the impact of trade, automation, health crisis, or other reasons.

Read the full article [here](#).

## **Open Jobs: Making labour markets smarter and empowering job seekers**

*Geoff Mulgan and Rosalinda Baker.*

Nesta. June 2018

Contextualizes the problem of finding work for unemployed individuals and details a solution: the Open Jobs concept. Open Jobs is a family of tools that make use of real-time data to aid and inform job seekers.

Read the full article [here](#).

## **Automation Potential for Jobs in Elkhart-Goshen**

*Molly G. Martin, Margaret Streeter, Matthew Schwartz, and Molly Kinder.*

New America. May 2019

Outlines New America and analytics company Burning Glass Technologies' first-of-its-kind study on the likely impact of automation on jobs in the greater Elkhart-Goshen metro region of Indiana. Concludes that automation will have a widespread impact on jobs in the Elkhart-Goshen region in the years ahead, and especially on low-skilled jobs and low-paid jobs. In some cases, technology will eliminate jobs already at high risk of automation.

Read the full article [here](#).

## **Worker Voices: Technology and the Future for Workers**

*Molly Kinder and Amanda Lenhart.*

New America. November 2019

Provides accounts of the ways workers are responding to the possibilities of a technologically enabled future in the context of their current situations. Concludes that policymakers will improve the odds of building effective programs by paying attention to the wider human context and by addressing the needs of a greater diversity of workers who will shoulder the greatest burden of the change.

Read the full article [here](#).

## **The Future of Work in NJ: Industry Series Study Education**

New Jersey Business & Industry Association. 2020

Describes challenges facing New Jersey's employers and businesses and outlines solutions for the business community, academia, and government to work together to ensure the skills needed for the jobs of tomorrow are embedded within K-16 education throughout the state.

Read the full article [here](#).

## **Where Opportunity Meets Innovation: A Student-Centered Vision for New Jersey Higher Education**

New Jersey Office of the Secretary of Higher Education. February 2019

Section titled "Vision in Practice: Cultivating Research, Innovation and Talent" (p. 37) describes the State of New Jersey's plan to put resources towards research and development, increased commercialization activity, high-quality academic programs and faculty, and experiential training for an innovation-ready workforce.

Read the full article [here](#).

## **Job Creation and Local Economic Development 2018: Preparing for the Future of Work**

OECD. 2018

Addresses to what extent geography impacts risk in the future of work and details ways in which national, regional, and local coordination can help promote productivity-enhancing automation and digitization that do not come at the cost of inclusion. Includes specific policies and examples.

Read the full article [here](#).

## **Policy Responses to New Forms of Work**

OECD. March 2019

Offers a snapshot of policy actions being taken by OECD, EU and G20 countries to address concerns about the growing misclassification and reclassification of worker status, particularly as it is exacerbated by the rise of the platform/gig economy

Read the full article [here](#).

## **The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis**

*Melanie Arntz, T. G.*

OECD. 2016

Offers a new approach to evaluating job loss via automation, looking at jobs as a collection of skills and determining which skills—not jobs—are likely to be automated. OECD finds that 9% of jobs are automatable, providing a much lower estimate for potential job destruction than those of other reports.

Read the full article [here](#).

## **The Four Futures of Work**

*Benedict Delloit, Rich Mason, and Fabian Wallace-Stephens*

Royal Society for the encouragement of Arts, Manufactures, and Commerce Action and Research Centre. March 2019

Offers a versatile scenario planning method for predicting the future of work. Utilizes a conceptual framework to derive four potential visions of the economy transformed in the future of work, and then presents solutions that could be implemented to better prepare for the new economy.

Read the full article [here](#).

## **Algorithms at Work: Productivity Monitoring Applications and Wearable Technology as the New Data-Centric Research Agenda for Employment and Labor Law**

*Ifeoma Ajunwa*

Saint Louis University Law Journal. September 2018

Explores how productivity monitoring applications will prompt a new reckoning of the balance between employers' financial interests and their employees' privacy interests. Asserts that these applications may also be both shield and sword in regards to preventing or creating hostile work environments.

Read the full article [here](#).

## **Dependent Contractors in the Gig Economy: A Comparative Approach**

*Miriam A. Cherry and Antonio Aloisi*

Saint Louis University School of Law. 2017

Uses a comparative approach to analyze the experiences of Canada, Italy, and Spain with the designation of a hybrid category in between employee and independent contractor specifically for the gig economy. Focuses on the following questions: Is labor law fundamentally outdated for the digital age? Does the gig economy need its own specialized set of rules, and what should they look like? What role does digitalization and technology play in the casualization of work? Concludes that workable proposals for a third category must also encompass other forms of precarious employment.

Read the full article [here](#).

## **Help Wanted: An Examination of Hiring Algorithms, Equity, and Bias**

*Miranda Bogen and Aaron Rieke*

Upturn. December 2018

Explores how predictive/algorithmic tools affect equity throughout the hiring process and offers recommendations for further scrutiny and reflection. Concludes that without active measures to mitigate them, bias will arise in predictive hiring tools by default.

Read the full article [here](#).

## **Training for Jobs of the Future: Improving Access, Certifying Skills, and Expanding Apprenticeship**

*Robert Lerman, Pamela Loprest, and Daniel Kuehn*

The Urban Institute. October 2019

Proposes three major policy initiatives for maximizing worker training to bolster productivity and wages: 1) Improve access to in-demand training through better information, technology, and targeted funding; 2) Strengthen connections between career and technical education and training and employer needs through competency-based training, career pathways, and improved certification and verification of skills; and 3) Build a robust apprenticeship system that emphasizes learning by doing in a context that involves apprentice contributions to production and culminates in a respected occupational credential.

Read the full article [here](#).

## **Different Skills, Different Gaps: Measuring & Closing the Skills Gap**

*Dan Restuccia, Bledi Taska, and Scott Bittle*

U.S. Chamber of Commerce Foundation & Burning Glass Technologies. 2018

Examines the skills gap on a occupation-by-occupation basis, identifying categories with the largest labor shortages. Provides three broad recommendations for addressing skills shortfalls: better alignment between education and workforce systems, expended employer leadership in those systems, and improved employer signaling of competency and credentialing requirements.

Read the full article [here](#).

## **America at Work: A National Mosaic and Roadmap for Tomorrow**

Walmart Corporate. 2019

A collaboration with McKinsey & Company. Examines 3,000 US counties, identifies eight community archetypes (instead of the usual three; rural, urban, suburban) and catalogs the unique strengths and challenges that determine each archetype's resiliency and shape its response to automation. Offers several real-world examples of specific cities and the actions they took to improve community prospects.

Read the full article [here](#).

## **The Rise of Alternative Work Arrangements: Evidence and Implications for Tax Filing and Benefit Coverage**

*Emilie Jackson, A. L.*

Washington DC: Office of Tax Analysis. 2017

Draws on administrative tax records to provide a more complete picture of the self-employed, including how they differ from employees (defined as workers receiving wages reported on Form W2) and how their numbers have increased over time.

Read the full article [here](#).

## **Eight Futures of Work: Scenarios and their Implications**

World Economic Forum. January 2018

Details scenarios based on various factors, such as the rate of technological changes, the rate of human skills attainment, and the mobility of labor. Provides a list of potential proactive actions to better shape the future of work.

Read the full article [here](#).

## **Harnessing Artificial Intelligence for the Earth**

*Celine Herweijer, Benjamin Combes, Pia Ramchandani, and Jasnam Sidhu*

World Economic Forum. January 2018

Summarizes issues stemming from innovation and new technology in the "Fourth Industrial Revolution," focusing on challenges and opportunities relating to the AI

revolution. Examines the intersection of AI and environmentalism. Provides a list of actionable recommendations for various stakeholders, including governments, companies, investors, and research institutions.

Read the full article [here](#).

## **The Future Jobs Report**

World Economic Forum. 2018

Provides statistics, surveys, and other data on changing skills demands, trends driving growth, technology adoption, reskilling needs, emerging and declining job roles, and barriers to new technology adoption broken down by industry and country.

Read the full article [here](#).

## **Towards a Reskilling Revolution: Industry-Led Action for the Future of Work**

World Economic Forum. January 2019

Provides a quantifiable case for a reskilling revolution led by business and government. Conducts a cost-benefit analysis and demonstrates that the private benefits of reskilling outweigh the costs. Contains an industry breakdown of potential obstacles and recommendations.

Read the full article [here](#).

## **The Future of Work. White Paper from the employment & recruitment industry**

World Employment Confederation. September 2016

Identifies four main topics under the future of work: Work and Society, Decent Jobs for All, The Organisation of Work and Production, and The Governance of Work. Identifies key trends for each topic, the implications and challenges, and a list of potential policy recommendations. The World Employment Confederation membership consists of national associations representative of the employment industry in their respective countries, including HR services, agency work, recruitment, and career management.

Read the full article [here](#).

# FUTURE OF WORK THOUGHT LEADERS

**Aspen Institute: Future of Work Initiative**

**Organisation for Economic Cooperation and Development (OECD)**

**International Labour Organization**

**National Governor's Association: The Future Workforce Now**

**McKinsey Global Initiative**

**Georgetown University Center on Education and the Workforce**

**Deloitte**

**MIT Work of the Future**

**Washington State Workforce Board Future of Work Task Force**