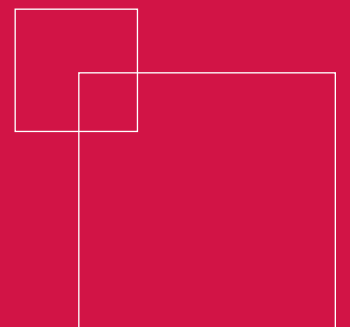


The Future of Work and the Disability Community





About SourceAmerica

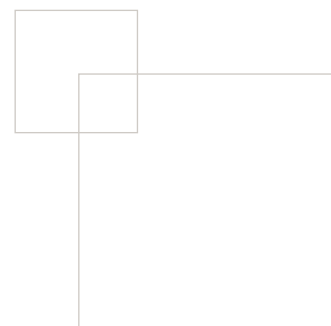
Established in 1974, SourceAmerica® (SourceAmerica.org) creates job opportunities for a skilled and dedicated workforce of people with significant disabilities. SourceAmerica is the vital link between the federal government and private sector organizations that procure the products and services provided by this exceptional workforce via a network of more than 800 community-based nonprofits. Headquartered in Vienna, VA, SourceAmerica provides its nonprofit agency network with business development, contract management, legislative and regulatory assistance, communications and public relations materials, information technology support, engineering and technical assistance, and extensive professional training needed for successful nonprofit management. SourceAmerica is an AbilityOne® authorized enterprise.

About this Report

This is the first in a series of reports under the Social Enterprises of the Future initiative. Social Enterprises of the Future represents a new collaborative platform to shape the future of inclusion of people with disabilities in the United States labor market. Through this initiative, SourceAmerica will convene representatives from the public, private and social sectors to design, recommend and implement interventions in response to trends affecting employment and the disability community. Social Enterprises of the Future is a fully inclusive initiative, with equal participation by people with disabilities. The Future of Work and the Disability Community establishes a baseline for ongoing research, collaboration, and intervention design to serve as a catalyst for systems change to increase the inclusion of people with disabilities in the labor market now and in the future.

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Introduction

A popular topic of debate among a growing number of scholars, economists and technologists is the changing nature of work. Research and predicted outcomes focus largely on the general population, omitting consideration of marginalized populations—those often viewed as peripheral to society. This is a gap that must be addressed to raise awareness and design policies and programs that support all individuals as they adapt to the unique challenges and opportunities of the changing United States labor market.

The focus of this report is the future of work and the disability community in the United States. The disability community is used as a general term to describe people with disabilities, their families, and a diverse array of organizations specializing in advocacy, education and employment among other areas of support. A person with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activities, has a history or record of such an impairment, or is perceived by others to have such an impairment.¹ People with disabilities are among the most marginalized populations in the world.² This holds true among advanced economies as well as developing nations. Within the United States, disparities in economic well-being, educational attainment, civic engagement and labor market activity highlight the gaps that exist between them and the general population.³



This report examines three factors that contribute to an uncertain future for employment of people with disabilities:

Factor 1: People with disabilities are significantly underrepresented in the United States labor force: Employment data shows a persistent disparity between people with disabilities and the general population. The challenges the disability community faces in maintaining, let alone increasing, employment rates may be exacerbated by predicted trends for the future of the United States labor market.

Factor 2: Significant societal and legislative pressures are disrupting the field of disability employment. Shifts in societal sentiment and public policy have led to a new benchmark for employment outcomes for people with disabilities, and increased pressure on the public and private sectors to create inclusive workplaces. Despite progress made in promoting greater inclusion, existing employment systems are being strained, leading to a need for adaptation by all stakeholders.

Factor 3: Predictions on the future of work in the United States indicate a significant impact on the labor market due to automation; coupled with macroeconomic trends, people with disabilities are likely to face even greater barriers to employment. Existing research on the future of work stops short of discussing the likely outcomes for populations with limited participation in the labor force. This report will demonstrate how the future of employment could further disenfranchise people with disabilities without intervention or significant systems change.

When analyzing employment statistics, this report primarily focuses on the age range of people 16-64 to explore trends impacting the majority of the labor force. Some of the data referenced in this report represent a smaller set within the age range based on the measure and available information (i.e. educational attainment is measured for people 21-64). This report does not address the growing number of people working beyond the age of 65, or the increased incidence of disabilities in this demographic related to aging. The topic of employment for people with disabilities beyond age 65 is worthy of additional research.

The purpose of this report is to establish a baseline for ongoing research, collaboration and intervention design to serve as a catalyst for systems change to increase the inclusion of people with disabilities in the labor market now and in the future. This report touches on a variety of topics without delving into an exhaustive examination. There are many factors that exert pressure on employment options for people with disabilities and subsequent research is warranted to examine individual topics in greater detail. This report serves as a first step toward raising awareness about the future of work and the disability community, leading to actions and outcomes intended to create a more inclusive future for all.

The purpose of this report is to establish a baseline for ongoing research, collaboration and intervention design to serve as a catalyst for systems change to increase the inclusion of people with disabilities in the labor market now and in the future.



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Factor 1: People with disabilities are significantly underrepresented in the United States labor force.

People with disabilities are largely underrepresented in many facets of society, including the workforce.² Because the average person spends up to 23 percent of the year at work,⁴ an analysis of employment trends can reveal much about the state of societal inclusion for the population. Furthermore, work offers many important benefits, outside of economic security, that people without meaningful employment do not have an opportunity to experience. Through work, people establish an identity, develop relationships and achieve purposeful goals.

Correlations between the generalized profile of people with disabilities and future labor market predictions examined later in this report suggest a disproportionately negative impact on people with disabilities. If predictions become a reality, these trends could exacerbate existing barriers to inclusion across multiple dimensions of life. Therefore, considering people with disabilities when studying the future of work is a social imperative.

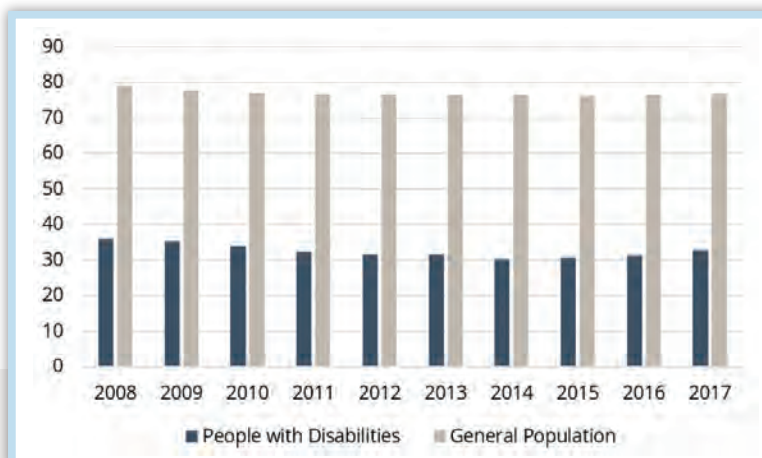
People with disabilities 16-64 represent 7.7-10.4 percent of the population, but only comprise 3.2-5.2 percent of the workforce.

Due to variances in available data on employment for people with disabilities, this report combines information from three sources: the Cornell University Institute on Employment and Disability, the United States Bureau of Labor Statistics (BLS) and the University of New Hampshire Institute on Disability/ Kessler Foundation National Trends in Disability Employment (nTIDE).⁵ Of primary interest are employment trends related to labor force attachment and market activity compared to reports of decreasing unemployment rates.

The Representation and Participation Gap

Before discussing comparative trends in employment indicators, it is important to establish the gap in representation between people with and without disabilities. Based on statistical data, people with disabilities 16-64 represent 7.7-10.4 percent of the population, but only comprise 3.2-5.2 percent of the workforce.^{6,7,8} The gap is further emphasized in labor force participation rates, where 32.6 percent of people with disabilities are working or seeking work compared to 76.8 percent of the general population.⁷ Central to the argument of inequity between people with and without disabilities is a persistent labor force participation gap exceeding 40 percent year over year (Exhibit 1).⁷ Based on this data, up to 13.8 million people with disabilities ages 16-64 are not engaged in work.⁶ Despite a report of 23 consecutive months of increases in the employment-to-population ratio of people with disabilities,⁹ the next section of this report will demonstrate that little ground is being covered to close the gaps in representation and participation.

Exhibit 1: Comparison of average labor force participation rates between people with disabilities and the general population (percentage).⁷



Decline in Key Indicators of Employment

Despite reports suggesting the United States is reaching full employment, the underlying data shows a long-term deterioration of participation by people with disabilities. The unemployment rate is the common measure used to report the state of employment in the United States. While the unemployment rate has continued to decrease for people with disabilities,⁷ so have indicators of labor force attachment. The unemployment rate is a point in time comparison of the number of people unemployed as a percentage of the total labor force (people employed plus the unemployed).¹⁰ As people detach from the labor force, they disappear from the unemployment rate calculation, leading to false assumptions.

Since 1990, the labor market activity rate for people with disabilities decreased by more than 50 percent.

Key indicators of employment include changes in the number of people in the labor force and those who are out of work but actively looking for a job. The number of people with disabilities 16-64 who are not in the labor force has increased by 10 percent over the past nine years (Exhibit 2).⁷ Between 2010 and 2016, the percentage of people with disabilities 21-64 not working but actively looking for work declined by 36 percent (Exhibit 3).⁶ The most telling trend is the precipitous decline in the

Exhibit 2: Number of people with disabilities not in the labor force (thousands).⁷

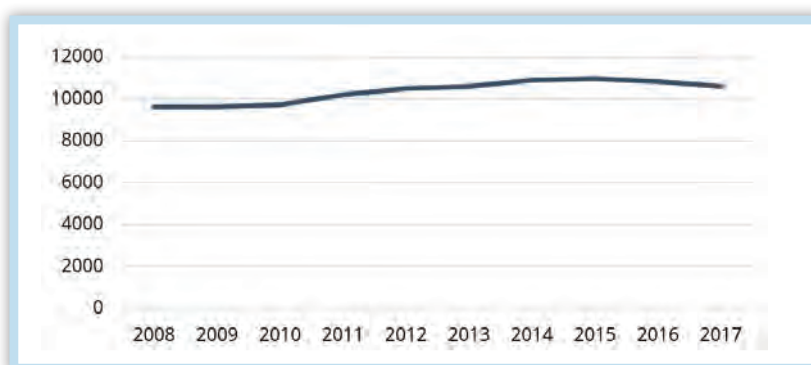
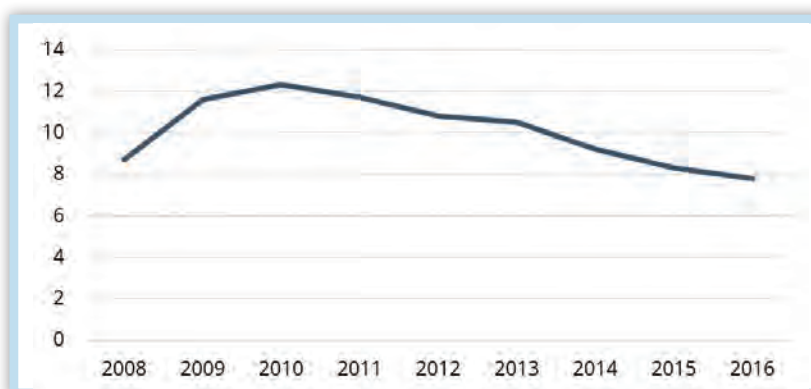


Exhibit 3: People with disabilities not working but actively looking for work (percentage).⁶

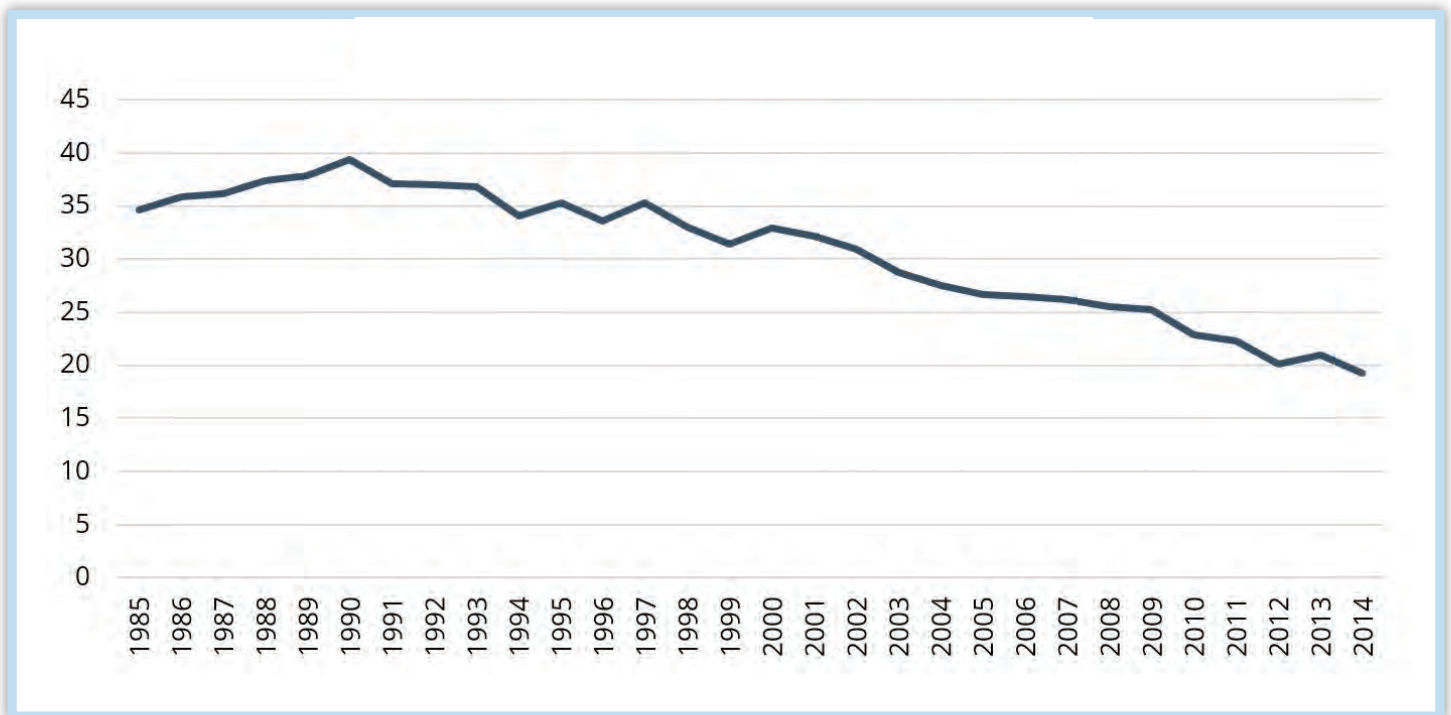


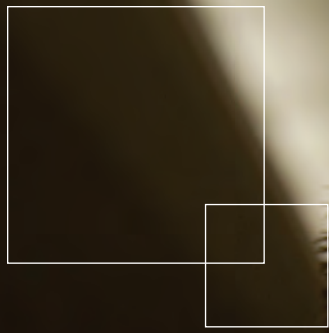
labor market activity rate for people with disabilities. The labor market activity rate is based on the number of people who have worked 52 hours or more within a given year. Since 1990, the labor market activity rate for people with disabilities 18–64 decreased by more than 50 percent (Exhibit 4).⁶ The decline in each of these key indicators of employment is significant because of the continued trend of people with disabilities disengaging from the workforce.

Conclusion

The purpose of this analysis is to increase awareness of the current state of employment for people with disabilities in the United States. Historical and present conditions demonstrate low levels of workforce participation by people with disabilities, which may be exacerbated by predicted trends for the future of the labor market. The data serves as a foundation for considering the possible effects, both positive and negative, of multiple sources of disruption in the disability employment field. While it is important to recognize year over year improvements when they occur, overcoming long-term declines in labor force attachment and market activity will require substantially more effort by all stakeholders to achieve meaningful progress.

Exhibit 4: Historical labor market activity rate for people with disabilities (percentage).⁶





Factor 2: Significant societal and legislative pressures are disrupting the field of disability employment.

Despite evolving societal attitudes and resulting public policy promoting equity, people with disabilities continue to struggle to achieve significant gains in employment levels. Recent policy initiatives, such as the Workforce Innovation and Opportunity Act (WIOA), have reinforced competitive integrated employment as the presumptive and priority outcome for people with disabilities. The goals of competitive integrated employment reflect aspirations shared by all: increased inclusion, opportunity and economic well-being. While progress is being made through policy, the shift in expectations and outcomes have strained many existing employment systems. Competitive integrated employment also increases pressure on the public and private sectors to become the model employers of people with disabilities. The systems change needed to meet evolving expectations of inclusion of people with disabilities in the workforce and society will require adaptation and cooperation by all stakeholder groups.

A Brief History

The foundation for competitive integrated employment was established by the Rehabilitation Act of 1973 (and subsequent amendments), Americans with Disabilities Act (ADA) of 1990, Workforce Investment Act (WIA) of 1998, the Supreme Court decision on *Olmstead v. L.C.* of 1999 and the Americans with Disabilities Amendments Act (ADAA) of 2008. Each presented access to integrated settings as a fundamental right of people with disabilities in accordance with their individual needs.^{11, 12, 13, 14, 15, 16} Despite increased focus on integration, the declining employment trends presented in the previous section of this report demonstrate that these policy initiatives did little to close the employment gap for people with disabilities.

The 2014 passage of WIOA and updates to the Medicaid Home and Community-Based Services (HCBS) Waiver Program represented an inflection point in employment policy, bringing a renewed emphasis on integration to the forefront. These policies reinforced competitive integrated employment as the presumptive and priority expectation for employment outcomes.^{17, 18} Goals to promote hiring of people with disabilities within the federal government and private sector found in final rules implementing the Rehabilitation Act of 1973, Sections 501 and 503, respectively, coupled with competitive integrated employment reflects a presumption that the market is primed for widespread inclusion of people of all abilities.

This report examines recent policy initiatives in greater detail and offers insight on possible impacts on current and future employment levels of people with disabilities. This report does not address equally important topics such as healthcare or tax reform policies. The goal of this analysis is to achieve a straightforward demonstration of the shifting employment landscape. To do full justice to all areas of policy representing valid concerns for the disability community and adequately address varying viewpoints requires a significantly larger and more complex investigation.

The systems change needed to meet evolving expectations of inclusion of people with disabilities in the workforce and society will require adaptation and cooperation by all stakeholder groups.

Shifts in Sentiment, Policy and Standards

WIOA defines competitive integrated employment as full-time or part-time work where:

- Individuals with disabilities interact with other persons without disabilities to the same extent that individuals without disabilities would in comparable positions.
- There are opportunities for advancement.
- Compensation levels are at or above prevailing minimum wages with equal access to benefits.¹⁷

Similar language is contained in the HCBS regulations. HCBS calls for person-centered service plans resulting in integrated settings with community access and the ability to pursue competitive integrated employment. The requirements further stipulate that such access must be equal to those who do not receive HCBS supports.¹⁸

Competitive integrated employment largely focuses on private sector outcomes, leading to an ideal end state of equitable treatment in filling job opportunities. Based on competitive integrated employment, work options such as congregate settings and enclaves are secondary in consideration and are simply seen as unacceptable by many. This is based on a view expressed by some that settings where people with disabilities work side by side represent segregation. Some depict this shift to prioritizing the incorporation of persons with disabilities into the mainstream workforce as a pivotal civil rights discussion, a continued evolution away from segregation and toward integration.

A primary consideration for all stakeholders is whether new standards and resulting policies will successfully increase employment levels for people with disabilities in a meaningful, sustainable way.

There is no broad consensus on whether traditional employment programs address or perpetuate societal inequity. While this report does not express a position on the topic, it is important to understand the dynamics at play. A primary consideration for all

stakeholders is whether new standards and resulting policies will successfully increase employment levels for people with disabilities in a meaningful, sustainable way. A theme explored in this report is the resulting impact on the future relevance of community rehabilitation programs, organizations specializing in providing vocational rehabilitation and a variety of complementary support services to people with disabilities.

As a corollary to WIOA and HCBS, there is an accumulation of policies and actions focused on the topic of compensation levels for people with disabilities. The Transitioning to Integrated and Meaningful Employment (TIME) Act, the Raise the Wage Act and multiple Executive Orders create pressure on the ongoing practice of paying special minimum wages based on individual productivity. The push to eliminate special minimum wages aligns with the full-scale adoption of the new standard.

Finally, this report will explore the intended impact of recent updates to Sections 501 and 503 of the Rehabilitation Act of 1973, which established aspirational hiring goals for the public and private sectors, respectively. Throughout this section, the analysis presented considers the impact to people with disabilities and the traditional systems for supporting their employment.

Integrated settings

The execution of WIOA falls on the shoulders of the Department of Labor and Department of Education. Within the Department of Education, the Rehabilitative Services Administration (RSA) has primary responsibility over regulations guiding the work of the state Vocational Rehabilitation (VR)



system. It is through regulation and implementing guidance that RSA has further defined employment settings within the guidelines of competitive integrated employment.

Guidance issued by RSA on the implementation of WIOA indiscriminately points to community rehabilitation programs, long considered a primary source of employment for people with disabilities, as indicative of non-conforming employment settings. RSA's reason for this determination is the interpretation that community rehabilitation programs establish specific settings to serve people with disabilities. Therefore, RSA does not believe these programs provide integrated employment settings comparable to the competitive labor market.¹⁹

It is important to highlight the underlying assumption that ideal employment settings are offered in the public and private sectors, with more emphasis placed on the role of large and small businesses. Such outcomes may be facilitated by community rehabilitation programs in a typical staffing scenario, but there is a clear bias against direct employment by such entities. This theme is central to the establishment of hiring goals through regulations implementing Section 503 of the Rehabilitation Act of 1973, as well as the current trend in diversity and inclusion hiring by private industry leaders.

Defining “typical” employment settings

The concept of competitive integrated employment suggests that workplace settings, broadly stated, will reflect representation of people with disabilities commensurate with their prevalence in the population. This is an assumption of the intent of the standard and its execution through implementing guidance. It is unclear whether the goal is to reach the population prevalence level, previously stated at 7.7-10.4 percent, or to accept settings at the current, marginal level of workforce representation as “typical.”

If measured against the current level of labor force representation, 3.1–5.2 percent, the benchmark sets a low bar for typical workplace interaction and does little to address the level of marginalization. The subjectivity of what is typical creates confusion on whether a job setting is acceptable by policy standards. This, in turn, could limit the support a person with a disability receives to pursue employment opportunities.

Opportunity for professional advancement

The second aspect of competitive integrated employment is the opportunity for advancement—that people with disabilities have the same eligibility for upward mobility as those without disabilities in a similar position.¹³ It is important to note that advancement is subjective. Some may view advancement in monetary terms, while others may ascribe other values that are largely individualized. Advancement is also commonly dependent on a variety of factors beyond access to opportunity. Higher instances of poverty and decreased attainment of high-level education by people with disabilities are pervasive factors limiting opportunities for career advancement.^{6,7} The concept of upward mobility is further challenged by observed macroeconomic and predicted technological trends discussed later in this report.

Compensation levels

Historically, Section 14(c) of the Fair Labor Standards Act of 1938 permitted organizations holding a Department of Labor (DOL)-issued certificate to pay special minimum wages to individuals based on their measured level of productivity. As of January 1, 2018, the Department of Labor reported there were 1,874 community rehabilitation programs with active or pending 14(c) wage certificates. As of that report, the number of people paid under special minimum wage certificates was 147,343.²⁰ Under the definition of competitive integrated employment, these individuals are not employed in a manner that conforms with the standard if their compensation level falls below existing state or federal minimum wages. The reported number of people paid special minimum wages represents nearly 3.1 percent of the total number of people with disabilities employed, according to BLS data.⁷ Critics believe that requiring everyone to be paid at or above minimum wage will result in the displacement of people who may not be able to perform at high levels of productivity. Others suggest that better job matches will remedy this concern. Despite differences in philosophy, there is consensus that unintended consequences should be avoided if possible. Therefore, it is incumbent upon stakeholders to cooperate and find solutions that maximize wages and opportunities while mitigating any harm that may result from changes in 14(c).



The future of special minimum wages

The establishment of competitive integrated employment, as a reflection of societal sentiment, contributes to the ongoing debate over the potential elimination of 14(c). This report does not attribute positive or negative judgment to the use of special minimum wages. Instead, the goal is to highlight the potential impact the continuation or elimination of 14(c) represents. This is accomplished through analysis of two proposed pieces of legislation and recent executive actions on wages for federal contract employees.

Originally introduced in 2015, the TIME Act proposed a three-year phase out of special minimum wages and an immediate halt to authorizations for new certificates.²¹ In March 2017, the TIME Act was re-introduced with a longer phase-out period, conditions for re-authorization of wage certificates and increased reporting requirements for certificate holders regarding barriers preventing individuals from competitive integrated employment.²² Supporters of the bill point to the emphasis on capacity building for a workforce that is not traditionally afforded equal access to opportunity. Critics of the bill point to the number of people receiving special minimum wages and concern about whether they are likely to leave the labor force. The counterpoint offered on this concern is the observed trends of decreases in the number of people paid special minimum wages over a period of several years. In 2001, the Government Accounting Office (GAO) reported more than 5,600 certificate holders paid special minimum wages to an estimated 424,000 workers.²³ A comparison to recent reports of 1,874 certificate holders and 147,343 workers with disabilities paid special minimum wages demonstrates a significant decline in the practice. What the trend does not specify is whether the reduction in special minimum wage certificates means people are still employed with higher compensation, or if they are now unemployed.

The Raise the Wage Act, introduced in 2017, calls for scheduled annual increases in federal minimum wage levels for people with disabilities, leading to the eventual discontinuance of special minimum wage certificates after a period of six years.²⁴ Like the TIME Act, there are those who advocate for, and those who are highly critical of, the possible outcomes of the Raise the Wage Act. Many of the same points and counterpoints apply to both pieces of legislation, which were written to improve parity in pay between people with disabilities and the general population.

Actions by the executive branch have reinforced the move to increase compensation levels. Effective January 1, 2018, Executive Order 13658 established a compensation floor of \$10.35 per hour for people employed on federal contracts.²⁵ This directly impacts people with disabilities working on federal contracts who receive special minimum wages and are likely employed through community rehabilitation programs. Although 14(c) can still be applied, the wage augmentation based on measured productivity cannot fall below a floor of \$10.35/hr.

It is uncertain when or if the use of special minimum wage certificates will be discontinued. States such as New Hampshire and Maryland have acted to eliminate or phase out the practice. A worst-case scenario, such as the total displacement of 147,343 individuals, is unlikely. However, there is reason to believe that people with the lowest levels of individual productivity are likely to be negatively impacted through loss of employment. Though this would likely only affect a fraction of the population, the impact would be undoubtedly significant for those individuals and their families.

The Push Toward Workplace Inclusion

The theme of policies discussed thus far is the aspirational outcome of increased inclusion within the labor force and society. The establishment of hiring goals offers additional support for the argument that society has acknowledged the current employment conditions for people with disabilities are not acceptable. This has led to positive attention on the topic of inclusion and increased interest by companies that want to recruit and retain employees with disabilities.

Recent updates to the Rehabilitation Act of 1973 reflect a sentiment that the public sector should be the model of workplace inclusion. Specifically, the United States Equal Employment Opportunity Commission published a final rule to inform the implementation of Section 501 of the Rehabilitation Act of 1973. The final rule requires federal agencies to adopt a goal that 12 percent of its workforce will be represented by people with disabilities, and 2 percent of its workforce will be represented by people with “targeted” disabilities.²⁶ Targeted disabilities translates roughly to “significant disabilities,” covering individuals with intellectual and developmental disabilities, traumatic brain injury, deafness, blindness, significant mental illness and significant mobility impairments, among other impacts of disability.

Since 2011, the Office of Personnel Management (OPM) has issued an annual update of inclusive hiring, entitled *The Report on the Employment of Individuals with Disabilities in the Federal Executive Branch*. The last available report, issued by OPM in 2015, indicated that 15 of 48 executive branch agencies met the general utilization goal of 12 percent and five met the targeted utilization goal of two percent.²⁷ To achieve the hiring goals, the government would need to hire an additional 47,000 people with disabilities. Of that number, approximately 16,500 new hires would need to represent targeted disabilities to achieve compliance.²⁸

As a corollary to increased expectations for employing people with disabilities within the federal government, the Office of Federal Contract Compliance Programs issued a final rule on Section 503 of the Rehabilitation Act in 2013. The final rule established an aspirational hiring goal for private sector companies and subcontractors doing business with the federal government. Section 503 outlines the specific elements of a private sector company to trigger applicability. The utilization goal is set at seven percent and applies to contractor job groups or their entire workforce if they have fewer than 100 total employees.²⁹ The effective date was March 24, 2014. Requirements include an annual analysis to reveal trends, suggesting such analysis will lead to increased efforts to hire people with disabilities.



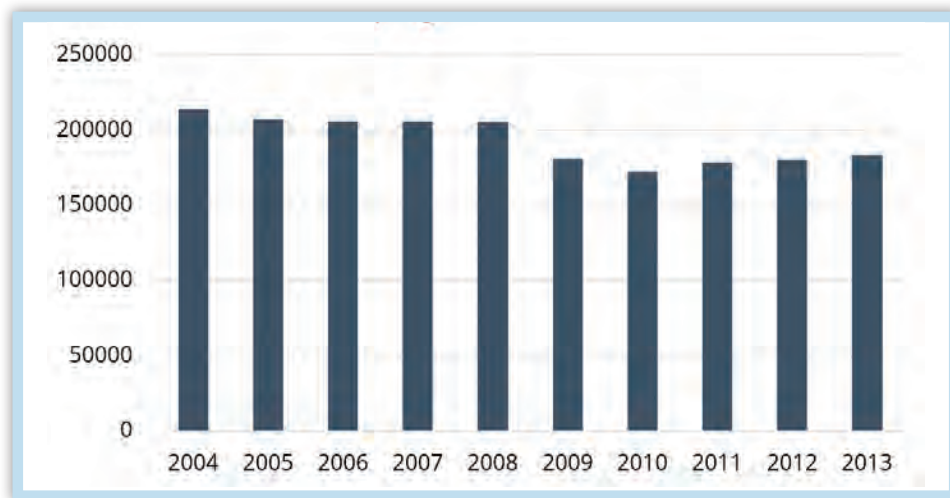
The establishment of hiring goals represents a positive shift for the disability community. This aligns with the growing sentiment of inclusion as evidenced by competitive integrated employment and the sampling of policies identified in this report. Despite opposing perspectives of execution and likely outcomes, it is incumbent on members of the disability community—primarily those who specialize in job creation—to evolve their business models in response to changing conditions. Traditional operating models that include congregate settings or pay special minimum wages do not align with new priority outcomes expressed by competitive integrated employment. This shift has led to ongoing debate within the field and with policymakers, the results of which are likely to play out over the next several years.

It is incumbent on members of the disability community – primarily those who specialize in job creation – to evolve their business models in response to changing conditions.

Current Employment Systems

Over a nine-year period, the VR system reported employment outcomes for a total of 1,930,093 people with disabilities.³⁰ The most recent data available is from fiscal year 2013 and was published in 2016. Data sourced from the RSA shows a sharp decline in employment outcomes from 2008-2010 (Exhibit 5), likely correlating to trends witnessed in the general labor force due to the recession.

Exhibit 5: Aggregate state vocational rehabilitation employment outcomes.³⁰



Recovery has been slow with only slight increases between 2011-2013. Extrapolating trends from 2011-2013 of year-over-year increases of 1.2 percent, current levels can be estimated at approximately 190,000 employment outcomes. Based on analysis, the state VR system accounts for 4 percent of the total number of people with disabilities employed per year. When compared to the average separation rate in the United States workforce of 3.5 percent, the rate of successful outcomes by VR contributes to maintaining the status quo but does little to make significant headway on increasing total employment levels.³¹

This information is not provided to disparage the role of the VR system in creating employment for people with disabilities. Instead, it is offered to demonstrate that historical precedent shows current systems for supporting this population are not positioned to narrow the gap, nor are they designed to handle increased demand suggested by competitive integrated employment. In fact, the new benchmark places additional pressure on the VR system to identify jobs that satisfy priorities, while disqualifying consideration for nonconforming outcomes. This may ultimately lead to the erosion of longstanding cooperation, and to some extent dependence, between VR and community rehabilitation programs.

The Role of Community Rehabilitation Programs

Historically, state VR agencies and community rehabilitation programs have existed symbiotically. VR agencies, directly supporting people with disabilities seeking jobs, provide referrals and placements to local community rehabilitation programs that specialize in employment, training and a variety of additional services. Recent debate stemming from the establishment of competitive integrated employment has called the role of community rehabilitation programs into question. Discussion on the topic often leads to disagreement about whether such programs have positive or negative net effects on the integration of people with disabilities into society.

Recent debate stemming from the establishment of competitive integrated employment has called the role of community rehabilitation programs into question.

This debate is generally centered on philosophical viewpoints, contributing to a degree of fragmentation with the broader community. The guidance offered to RSA, suggesting community rehabilitation programs providing jobs fail to meet the standard of competitive integrated employment, signals a

potential collapse of a system on which multiple parties rely. The impact on people with disabilities seeking jobs and whether their options for outcomes with funding support are now limited by policy rather than their choice is still unknown.

Disability Community Fragmentation

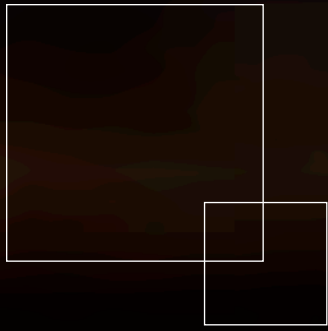
A final point of consideration on the complexity of this issue is the philosophical division within the disability community. A 2010-2011 survey conducted by the Institute for Community Inclusion estimated there were 5,408 community rehabilitation programs in the United States, serving people with disabilities.³² In addition to the community rehabilitation programs, there are a diverse array of actors within the disability community competing for political capital—academic institutions, nationwide nonprofit agencies, networked organizations, and advocacy and lobbying groups. This leads to confusion and a presumption of risk among lawmakers, as well as job creators in the public and private sectors, who fear not including all perspectives.

While many in the disability community agree on the optimal end state for inclusive employment, significant differences in how to achieve goals persist. The biggest concern remains the potential number of people with disabilities adversely impacted in the transition to competitive integrated employment. Though not offered as an attribution of right and wrong, it is important to consider how divisions within the disability community contribute to long-term improvement or deterioration of the situation.

Conclusion

The landscape of disability employment is highly dynamic. Though not an exhaustive list of factors worthy of consideration, this report has identified trends that highlight the need for significant systems change in the field. Despite representing a victory for the disability community, competitive integrated employment has strained many existing systems, which threatens efficient support for people with disabilities. Historical performance of existing employment systems, philosophical divisions within the community, a starting point of significant inequity and predictions about the future of work contribute to expectations that limited progress will be made without additional interventions.





Factor 3: Predictions on the future of work in the United States indicate a significant impact on the labor market due to automation; coupled with macroeconomic trends, people with disabilities are likely to face even greater barriers to employment.

The concept of the “future of work” continues to be at the forefront of discussion on the United States labor market. Technology is reshaping workplaces, occupations, marketable skills, and the engagement between employers and employees. Studies conducted by experts in the field suggest a wide range of possible impacts on “jobs” and “work” in the future, automating up to 47 percent of the United States labor market.³³ Such predictions, coupled with observed macroeconomic trends impacting the labor force and the nature of employment, point to a potential for increased marginalization of people with disabilities. The final section of this report is intended to translate existing research on the future of work from the general labor force perspective to its potential impact on the disability community. Underscoring the need for interventions, this final section projects how the current state outlined in Factor 1, forces described in Factor 2 and technology’s impact on the labor market may widen the economic divide if left unaddressed.

Macroeconomic Trends

This section begins by addressing observed trends in the United States labor market, specifically impacting the middle-class. The common descriptor used to define the situation is a “hollowing out” of what has traditionally comprised the economic majority. Several factors contribute to this overall trend, including post-recession effects, globalization and the increasing prevalence of automation. While this report will not explore the first two topics, it will expand on the role of technology now and in the future. For analysis on the “hollowing” middle-class, this report relied on the work of the Pew Research Center and the Brookings Institution.

According to the Pew Research Center, the United States middle-class decreased from 61 percent in 1971 to 50 percent in 2015. This decline correlates with an increase in the lowest economic class, from 16 percent up to 20 percent, and in the highest economic class, from 4 percent to 9 percent.³⁴ This trend is accompanied by a shift in demand for workers with higher education levels, up 68 percent from 1980-2015, outpacing demand for workers with below-average education, up just 31 percent during the same period.³⁵

Technology is reshaping workplaces, occupations, marketable skills, and the engagement between employers and employees.

This shift has contributed to the potential of a two-tiered economic class structure, as representation moves to the fringes of the distribution curve, leading to an increasing economic divide. Despite evidence of a post-recession economic rebound, the Brookings Institution reports the recent two-year increase in median household income has just surpassed 1999 levels.³⁴ The effects are not dispersed uniformly across the country. There are significant discrepancies in the rate of economic recovery geographically and across populations.³⁶

Additionally, the Brookings Institution cites increased instances of people 25-54, primarily males, leaving the workforce and a correlation with rising claims of disability. Reasons for increased workforce disengagement by the general population include factors such as education level, a lack of relevant skills due to changing job requirements hastened by technology and the inability to relocate to find work.^{33,35} These are barriers historically encountered by people with disabilities. If such factors are limiting the employment opportunities for the general population, it is reasonable to believe they are also limiting the prospects for people with disabilities.

Through their research, the Brookings Institution found that 56 percent of males, 25-54, out of the labor force in 2016 cited illness or disability as the reason for not working.³⁵ This trend has a net effect on the population prevalence, labor market activity and unemployment rates for the disability community. As the number of people citing disabilities rises and detachment from the labor force increases, employment statistics will continue to skew, obscuring the persistent disparity between the general population and people with disabilities. Additionally, those who rejoin the labor force after periods of long-term unemployment are prone to a decrease of 20 percent in lifetime earnings, increased job instability for upwards of a decade, and a higher likelihood to accept part-time or seasonal work.³⁸ This is a significant consideration due to increased competition for low-wage jobs or unstable unemployment options often attributed to people with disabilities.

The significance of this data is the resulting effect on people with disabilities who, statistically, reside in the lower economic class because of average income levels, educational attainment and instances of poverty.^{6,7} As people who used to be middle-class slide down the economic spectrum, there is greater competition for lower-wage jobs. In some situations, people who have higher levels of educational attainment than required for lower-wage jobs are accepting the work based on availability and need. This point becomes critical when considering predictions of the impact of technology on the labor force and resulting economic outcomes.

Technological Trends

The intent of this discussion is not to be alarmist, but to present how the current research on the future of work points to the potential for disproportionately negative consequences for people with disabilities. Research indicates the impact of automation will extend beyond routine tasks to include a wide range of cognitive tasks and a broader scope of manual work. This has the potential to reshape the nature of work for most, if not all, industries and jobs.²⁷



Historically, the introduction of technology has led to greater efficiencies and new occupations. While this is an expected outcome of the current wave of automation, the overall results are expected to be considerably different than past technological revolutions. The new wave of displacement is unique because evolving technologies will create smarter machines with increasingly higher levels of sophistication. This is predicted to erode the advantages human beings have traditionally held over machines and create a new dimension of labor-market disruptions and subsequent adjustments.

Research indicates the impact of automation will extend beyond routine tasks to include a wide range of cognitive tasks and a broader scope of manual work.

The scale of disruption, not the likelihood of disruption itself, is the matter of debate. The consistent timeline for labor-market effects is 10-20 years. However, the impact of technology on the labor market is not a “big-bang” trend. Incremental rebalancing of the role of humans and machines will continue to occur across industries. This will give rise to a moving target regarding the division of labor, where tasks performed by people will serve to complement the role of technology.⁴⁰ Current predictions about the level of impact on the United States labor market due to automation include 9 percent³⁴, 23 percent⁴¹, 38 percent⁴² and 47 percent²⁷. Differences among the predictions can be attributed to whether the analysis focused on the occupation level or the task level. This distinction is important because of the ongoing debate about whether automation will replace entire “jobs” or discreet activities better performed by technology.

Despite differences in methodology and predicted outcomes, the common conclusion of researchers is unprecedented levels of disruption. This will result in jobs lost as well as the creation of new occupations that the labor force must adapt to through training and education. Researchers also reach consensus on the profile of demographics and occupations most susceptible to disruption, the skills needed for the changing nature of work and likely mitigating factors. It is important to keep in mind the research conducted to date applies to the total labor force, and not just people with disabilities. This report attempts to translate this information to a potential future state for people with disabilities.

Technological Unemployment and People with Disabilities

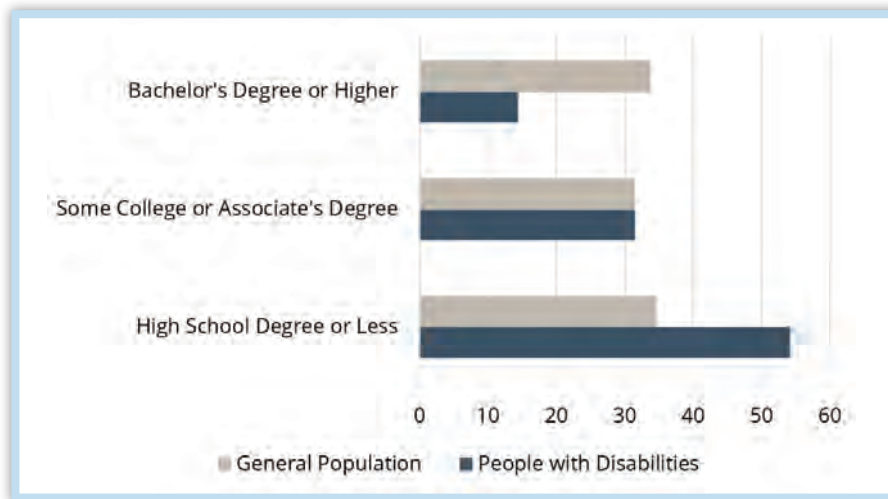
Research consistently points to a disproportionate impact of automation on a population matching the generalized profile of people with disabilities. Those largely believed to be at greatest risk of displacement are identified generally as low-skill and low-wage workers. Many people believe an increase in efficiency and productivity resulting from technology will lead to higher wages for the general population. However, research cites this positive effect will not be consistently distributed across income groups.^{33,36} This is likely to result in increased inequality between those who are well positioned to benefit from technological advancements and those who are likely to be displaced.

The influence of education levels

The first dimension of risk is tied to educational attainment. Research suggests that those with an education level of high school or below are 30 percent more susceptible to displacement than those with an undergraduate degree or higher.³⁶ Predictions of the future labor market suggest the demand for people with a high school degree or less will decrease by 4.3 percent to 9.8 percent.³⁵ In a special report commissioned by President Barack Obama, the Executive Office of the President suggests nearly three-quarters of future high-growth occupations will require an education beyond high school.³³

This is significant because the level of educational attainment for people with disabilities is drastically different from the general population (Exhibit 6). As of 2016, roughly 20 percent of people 21-64 with disabilities had less than a high school education, and only 34.1 percent had attained a high school degree or equivalent.⁶ When combined, these two groups represent more than half of the disability population or approximately 10.7 million people. If predictions are accurate about displacement due to low levels of educational attainment, over half of the population of people 21-64 with disabilities will be at a disadvantage.

Exhibit 6: Comparison of educational attainment levels between people with disabilities and the general population (percentage).⁶



The influence of income levels

The second contributing factor for the risk of displacement is current income levels. The research ascribes increased susceptibility to displacement to jobs identified as low-skilled and low-wage, due to the ability to perform routine, repetitive or manually intensive tasks with machines. The threshold applied to qualify this descriptor is an average hourly wage of \$20 or less. Reports suggest that individuals with hourly wages at or below \$20 have an 83 percent greater risk of displacement by automation.^{27,33} Statistical studies indicate those at greatest risk for displacement are people with annual incomes of \$40,000 or less.³²

As of 2016, the average median income for people with disabilities in the United States was \$40,300.⁶ This equates to just under \$20 per hour, suggesting that roughly half of people with disabilities are likely at an increased risk to technological displacement. Research contained in the nTIDE 2016 Disability Statistics Annual Report cites that people with disabilities earn two-thirds of the median annual earnings of the general population.⁴³

The potential impact on middle-income jobs will create increased levels of competition for lower-wage jobs, which are also highly susceptible to automation if they involve routine, predictable tasks.

Although research finds a larger share of tasks performed by low-skilled workers are likely to be automated, there are indications that the most significant impacts will affect middle-income occupations. One prediction cites a potential decline of up to 16 percent of middle-income jobs by 2030.³⁵ Increasing levels of sophistication due to machine learning algorithms stand to take the place of jobs associated with higher levels of cognitive effort, not just routine manual labor. The potential impact on middle-income jobs will create increased levels of competition for lower-wage jobs, which are also highly susceptible to automation if they involve routine, predictable tasks. As referenced in the prior examination of macroeconomic trends, the current “hollowing out” of the middle class could increase in severity because of technology. If this occurs, additional pressure will be placed on those already in the lower economic class, which could lead to downward pressure on wages and increasing income inequality.

Skills for the Future

An expected outcome of technological displacement is the reallocation of labor to new tasks and occupations. To successfully transition, people with disabilities must acquire skills responsive to the changing labor market. Research points to an increased emphasis on the importance of soft skills with low susceptibility to automation. Skills such as creativity, social and general intelligence, and judgment will become more valuable in the future.²⁷ Unfortunately, such skills are often associated with higher end occupations, likely filled by people who have achieved advanced degrees.³³ Not all manual tasks are under immediate threat of automation. In the near term, jobs requiring manual dexterity will continue to be performed by people. However, technology will continue to improve and eventually overtake such tasks.^{27,33}

The high value placed on soft skills for future jobs should not detract from the value of technical skills, though these will be more concentrated in areas of technology, such as coding, and the use of software to manage robotics. Relevant skills for the future include social and emotional intelligence, general intelligence, advanced reasoning and judgment.³⁵ Advanced skills, predicted to garner increased demand, are cross-cultural competence, transdisciplinarity, adaptive thinking and cognitive load management.⁴⁴



The unique challenge represented by this information is ensuring people with disabilities have an opportunity to acquire skills for the future of work. The popular phrase for the movement toward lifelong skill acquisition for future viability is “upskilling the workforce.” Unfortunately, this tends to focus only on those currently in the labor force as the intended beneficiaries of retraining and monetary support from employers. It is unlikely people who are historically underrepresented in the workforce and have lower levels of formal education will receive relevant skills training. This, along with the increase in competition for jobs among the general population, may continue to widen the economic divide.

Opportunities Where Technology Augments Human Ability

Future employment opportunities will continue to grow in areas where humans and technology intersect. There is an argument to be made that technology is generally a complement to humans, offsetting limitations and increasing physical and cognitive abilities to perform a variety of tasks.

A positive outcome of technological trends is breakthrough advancements in assistive technology.

A positive outcome of technological trends is breakthrough advancements in assistive technology. Forbes estimated the market for assistive technology for the elderly and people with disabilities to be \$14 billion in 2015, with an estimated trajectory to \$26 billion by 2026.⁴⁵

Assistive technology can open doors previously closed to people with disabilities. Technology has been developed to address visual, auditory, cognitive and mobility challenges. As devices continue to become smarter, and the introduction of artificial intelligence, machine learning and augmented reality become the norm, people with disabilities may have access to many new, exciting opportunities. Better still is the potential for people with disabilities to participate in the development of technology, reframing the context of an impairment as a unique asset in testing hardware and software. The counterpoint to this positive outcome is the bias of technological improvements toward people with advanced skills, who are positioned to realize significant benefits quickly.



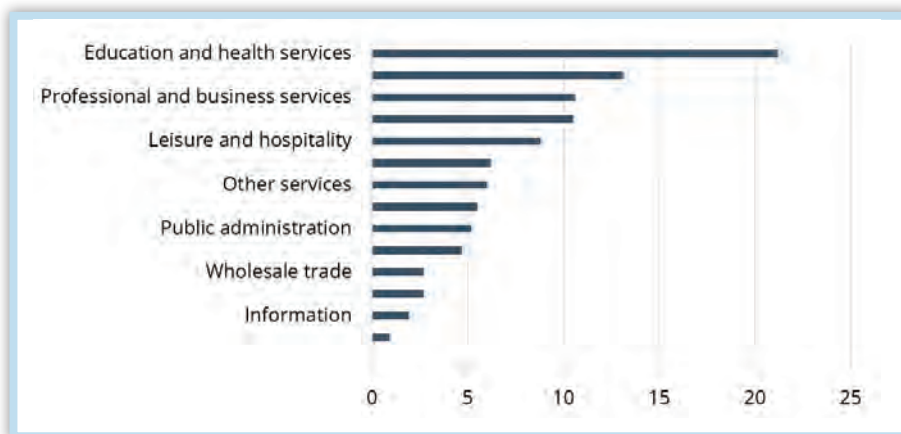
Vulnerable Occupations

The 2017 research of Frey and Osborne provides an extensive analysis of the impact of automation on 702 occupations.³³ There has been significant discussion about the work of Frey and Osborne, leading to the development of alternate methodologies and predicted outcomes. There is also a relevant debate as to whether automation will overcome entire occupations or individual tasks. Popular opinion trends toward the elimination of tasks within occupations as a likely outcome of automation, ideally allowing people to perform activities requiring skills not yet acquired by robots.

In a subsequent study, the McKinsey Global Institute reported that jobs associated with higher likelihoods of substitution for technology over human labor trend toward those that are routine and predictable. Such occupations include record clerks, finance and accounting, cashiers, food service and preparation, assembly line workers, dishwashers, truck drivers, equipment operators, and building and grounds cleaners.³⁵ A report released by PricewaterhouseCoopers cited that industries at the greatest risk include wholesale and retail trade, manufacturing, transportation and storage, accommodation and food service, financial and insurance.³⁶ While there are predictions about what industries are likely to grow over the next 20 years, it is unknown what new fields will be created to mitigate significant losses in the labor market because of technology.

According to the McKinsey Global Institute, historical trends suggests that up to 9 percent of labor demand by 2030 will be from occupations that do not currently exist.³⁵ An important consideration is the speed of adoption for new technologies, and the resulting impact on the labor market. Though people with disabilities represent a diverse composition of skills and abilities, the community is generally associated with occupations such as grounds and building maintenance, food service, retail, warehousing and administrative tasks. The research and current BLS data (Exhibit 7) suggest that people with disabilities are, on average, more likely to work in occupations that are highly susceptible to future automation.³ A positive counterpoint is the high percentage of people employed in education and health services, both predicted areas of future growth. To maintain viability in the future, members of the disability community will need to determine how to relocate to occupations with the greatest potential for sustainability. Given many of the points made throughout this paper, they face greater barriers to achieving this goal than the general population.

Exhibit 7: People with disabilities employed by industry (percentage).³



Mitigating Factors

Despite the forecasted effects of automation on the workforce, researchers cite important mitigating factors that may slow the pace and lessen the full impact. For example, there is broad consensus that economic, legal and regulatory interventions may be implemented to limit the degree of impact on the labor market.^{27,33,34,35,36} Researchers also suggest that policy can moderate the rate of adoption for technology, balancing the speed of labor substitution. Another mitigating factor is political activism to protect specific industries and demographics. Though not a focus of this paper, increased awareness of the potential impact of technology on the employment of people with disabilities may result in advocacy for policy interventions.

Although much of the report has focused on the negative effects of automation, there are noted economic bright spots that may buffer the labor market from significant losses. Research by the McKinsey Global Institute provides positive predictions related to technological advancement that some believe may offset most job losses. Their December 2017 report, *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation*, lists seven factors that may spur labor force growth:

- rising incomes and consumption levels;
- aging population trends and the healthcare industry;
- development and deployment of technology;
- investment in infrastructure;
- investment in new construction;
- investment in renewable energy; and
- marketization of previously unpaid domestic work.³⁵

Each area represents potential new employment opportunities for people with disabilities. These trends also provide insight to the broader community about the training and education that is necessary to help prepare the disability population for the changing nature of work.

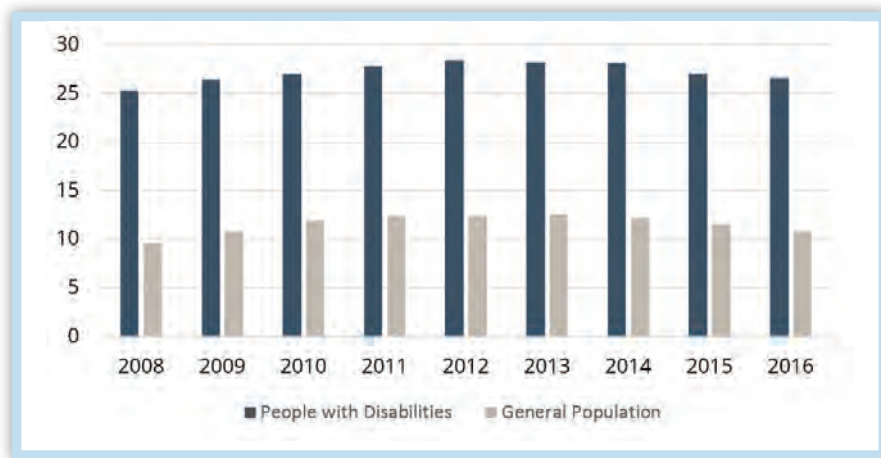
Social and Economic Importance

This topic of study has economic and societal merit that cannot be ignored. Longstanding social stigmas and lack of access to opportunity have contributed to persistent employment disparity between people with disabilities and the general population. This has significant economic consequences worldwide. According to a 2015 estimate by the United Nations, countries worldwide forego up to 7 percent of Gross Domestic Product due to the exclusion of people with disabilities.⁴⁶ While experts debate the dilemma of supply and demand of labor in the future,

Researchers also suggest that policy can moderate the rate of adoption for technology, balancing the speed of labor substitution.

people with disabilities are largely not considered in the discussion. The disability community must demonstrate that its contributions to society are no less valuable than the contributions of any other demographic. A report on this subject cannot overlook the prevalence of poverty among people with disabilities. Compared to the general population, people with disabilities average a 15.6 percent higher incidence of poverty in the United States (Exhibit 8).⁶ An improvement in the poverty rate among people with disabilities correlates to benefits for all of society.

Exhibit 8: Comparison of rate of poverty between people with disabilities and the general population (percentage).⁶



Conclusion

The purpose of this report is to establish a baseline for ongoing research, collaboration and intervention design to serve as a catalyst for systems change to increase the inclusion of people with disabilities in the labor market now and in the future. Through analysis of publicly available census data and research on societal, legislative, economic and technological trends, this report offers a comprehensive outlook on the potential opportunities and obstacles impacting the future of work for

people with disabilities. The trends cited in this report are important for all members of the disability community to recognize. A highly dynamic environment is prompting reconsideration of the role of existing policies and program models, contributing to uncertainty for the future.

Ultimately, progress depends on collaboration across sectors, and the meaningful inclusion of people with disabilities to design outcomes that meet their goals and aspirations for the future.

This report presents three key factors influencing the future of work for the disability community.

- **Factor 1:** People with disabilities are significantly underrepresented in the United States labor force.
- **Factor 2:** Significant societal and legislative pressures are disrupting the field of disability employment.
- **Factor 3:** Predictions on the future of work in the United States indicate a significant impact on the labor market due to automation; coupled with macroeconomic trends, people with disabilities are likely to face even greater barriers to employment.

The key findings of this report show long-term deterioration in the employment situation for people with disabilities. Though unemployment rates have been decreasing, the underlying data on labor market activity and attachment provides reason for concern. Societal sentiment and public policy shifts, resulting in the establishment of competitive integrated employment as the new benchmark for outcomes, suggest increased expectations of inclusion in the job market. Success in achieving the aspirational goal of competitive integrated employment will require increased hiring demand by public and private sector employers, and support from the disability community. At the same time, these policies are straining existing employment systems, which may hinder progress. The situation is further complicated by increased competition for current and future jobs, and the means to acquire relevant skills due to economic trends in the United States. The increased competition has negative consequences for people with disabilities who are generally associated with the lowest economic class due to lower levels of educational attainment, annual income and higher incidence of poverty. Finally, the generalized profile of people with disabilities matches the predictions of those most likely to be displaced due to technological factors stemming from increases in automation and artificial intelligence.

This is the first in a series of reports under the Social Enterprises of the Future initiative. The next report will present a collection of new operating models, designed initially by an inclusive workgroup of executives and self-advocates from the disability community, and refined through interaction with over 200 organizations nationwide. The operating models offer a starting point for systems change in response to the trends identified in this report. The Social Enterprises of the Future initiative will engage in continued research and program design leading to operational and policy-level interventions to increase employment opportunities for people with disabilities. Ultimately, progress depends on collaboration across sectors, and the meaningful inclusion of people with disabilities to design outcomes that meet their goals and aspirations for the future. As a catalyst, the Social Enterprises of the Future initiative will convene diverse perspectives to advance shared goals of inclusion and economic well-being, for the benefit of the disability community and the nation at large.



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