

POLICY BRIEF

Disability Inclusion in Registered Apprenticeship Programs

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Introduction

The Build Back Better Act (H.R 5376) includes \$5 billion to create and expand apprenticeship programs.¹ This historic investment comes on the heels of over \$950 million of federal grants targeted for this purpose in the last five years and a growing commitment among federal agencies, state governments, local policy makers, and employers to expand apprenticeship opportunities.

Apprenticeships can bridge the gap between the skills of jobseekers and the demands of employers by combining on-the-job training, mentorship, and classroom instruction with a paycheck. During this time of growing income inequality and technological change, apprenticeships can address the needs of all stakeholders. For apprentices, apprenticeships are an entry point to a highly skilled job that pays well without a college degree. For employers, they can be a strategy to develop a pipeline of skilled employees. For policy makers, they can address the job training needs of marginalized groups who may otherwise be disconnected from the labor force and consequently address historic income inequality.

Apprenticeships may be particularly valuable for people with disabilities, many of whom face multiple barriers to employment.² People with disabilities are less likely than others to have a college degree, less likely to have work experience, and tend to have lower incomes. This means that they are also less likely to be able afford post-secondary training.

Applicants with disabilities may face discrimination in job hiring because employers do not believe they can do the job or will require costly accommodations. Apprenticeships can

address these issues (Table 1). Training is part of the job. Therefore, apprentices do not have to do without income while learning. In this way, they avoid one of the main barriers to receiving training and specialized skills especially for people with lower incomes. Apprenticeships also offer a hands-on approach to learning and gaining skills for people who may have challenges in traditional classrooms. At the same time, they can combat the employer’s stereotypes of people with disabilities by giving the employer the opportunity to observe the apprentice’s skills prior to making a hiring decision.

Table 1: How inclusive apprenticeships can bridge the gap between skills and employment for people with disabilities

Challenges faced by people with disabilities in skills development and employment	How quality and inclusive apprenticeships can contribute to solutions
Prejudice: Employers assume that employees with disabilities are less productive and need costly adaptations.	Apprenticeships are an opportunity for people with disabilities to demonstrate their work potential and the contributions they can make to a company.
Lack of work experience is a key obstacle for young people in finding employment, especially for people with disabilities.	Apprenticeship is a way out of the “inexperience-gap”. Through company-based training, apprentices gain valuable work experience.
Skills mismatch: Training programs not affiliated with employers or industries are not always up-to-date on technological developments or responsive to industry needs.	During in-company training, apprentices are trained in the immediate skills needed in enterprises and the technology and the equipment used.
Low schooling levels: People with disabilities are less likely to have graduated high school or attended post-secondary education.	Apprenticeship can motivate compensatory schooling: foundational skills (math, literacy, etc.) are acquired more easily if used at the workplace and learners can directly see the connection between classroom and on-the-job learning.
Inadequate learning methodologies: Classroom-based skills development are often not be adequately adjusted to individual learning needs.	Workplace-based learning is “embedded” and supervised on a one-on-one basis – it is thus easier to adapt to individual needs and learning pace.
Cost concerns: People with disabilities may have lower incomes and are less likely to be able to afford post-secondary education. At the same time, available employment opportunities may offer low pay.	Registered apprenticeships require employers to pay at least minimum wage and offer wage increases over time. Most education expenses are covered by the employer or other programs.
Source: Adapted from the International Labor Organization's Making apprenticeships and workplace learning inclusive of persons with disabilities (web: ilo.org/global/topics/disability-and-work/WCMS_633257/lang--en/index.htm)	

Even though apprenticeships have the potential to address many long-standing challenges to increasing employment opportunities, people with disabilities are underrepresented in apprenticeship programs. Although the number has been growing steadily since the U.S. Department of Labor began requiring programs to report the disability status of their apprentices in 2019, only 1.5% of apprentices report having a disability. The Department of Labor's Office of Apprenticeship has set an aspirational goal that 7% of a sponsor's apprentices are to be qualified individuals with disabilities (29 CFR § 30.7).³ However, few programs come close to meeting this goal.

In the United States, the apprenticeship system includes employers, industry intermediaries, educational institutions, the public workforce system, state apprenticeship agencies and other community organizations. Each component of the system has opportunities and challenges to addressing the underutilization of apprenticeships among people with disabilities.

As public investment in apprenticeship grows and politicians and policy makers from both sides of the political spectrum develop strategies to expand apprenticeship opportunities, this is a critical time to ensure that people with disabilities are fully included. To support this effort, the Disability Inclusive Employment Policy Center is developing a series of policy briefs to be released over the next three years that will explore challenges and facilitators to developing and growing inclusive apprenticeships and identify policy levers available at the state and federal levels to incentivize the growth of inclusive apprenticeships.

In this first paper in the series, we briefly describe the core components of apprenticeships. Using data from the U.S. Department of Labor's publicly available Registered Apprenticeship Partners Information Database System (RAPIDS), we provide an analysis of the use of apprenticeships among people with disabilities.

The Basics of Apprenticeships

Apprenticeships are one of the oldest forms of training, involving learning a trade or skilled job under the direction of a senior worker. They were largely unregulated in the U.S. until the enactment of National Apprenticeship Act in 1937. The concept of apprenticeship as a combination of hands-on experience and classroom-based learning has not changed significantly. However, the types of industries using apprenticeships have dramatically expanded. Historically, apprenticeships have focused on skilled trades like carpentry, plumbing, electrical, and manufacturing. Still today, a large majority of active apprenticeships (68%) are in the construction industry⁴; however, apprenticeships are expanding into industries such as healthcare, finance, business, and information technology. Many, but not all, apprenticeship programs are registered with either the U.S. Department of Labor (DOL) or a State Apprenticeship Agency (SAA) which certifies that programs provide a set of basic requirements that make apprenticeship completion a qualification transferable among employers.

Registered apprenticeships last between one and six years depending on the employer and occupation, with an average of four years. The requirements for completing an



apprenticeship may be time-based, competency-based, or a hybrid of the two. Time-based apprenticeships typically include 2,000 hours of on-the-job learning and a minimum of 144 hours of related classroom instruction. In competency-based models, the apprentice progresses through training by successfully demonstrating mastery of skills and knowledge.

Apprenticeships are sponsored and managed by employers, employer associations, labor-management organizations, and independent apprenticeship organization. Sponsors work with either the DOL or their SAA to develop and register their program. The sponsor may provide all elements of the program themselves (on-the-job training and related technical instruction), or they may partner with career schools, community colleges or other education providers to deliver a comprehensive, apprentice-focused experience. All apprentices earn a federally recognized credential after completing their apprenticeship. Some apprentices even earn an associate's or bachelor's degree while they learn on the job.

Apprenticeships are a “learn while you earn” model. Apprentices earn a salary throughout the entire program, even during the registered training portions which can happen away from their job sites. According to the U.S. Department of Labor, the average starting wage for a new apprentice is \$15 an hour and the salary increases as the apprentice gains skills and experiences according to a predetermined schedule which varies by employer, job, and industry.

The cost of training, including the apprentice's wages, on-the-job training and mentoring costs, and often much of the tuition for their classroom instruction, is covered by the apprenticeship sponsor. These costs may be partially or fully subsidized by federal or state level incentives. In 23 states, employers may qualify for tax breaks or other subsidies that are specifically targeted towards increasing apprenticeships. Federal workforce development funds may be used to support training expenses and federal student aid including Pell Grants, Federal Work Study.⁵ Additional funding is available for apprentices with disabilities through the Vocational Rehabilitation system. Veterans may use the GI bill and the Vocational Rehabilitation and Employment (VR&E) program of the Department of Veterans Affairs to offset the cost of certain apprenticeship training.⁶ In addition, the Department of Labor has provided grants to states and intermediary organizations to streamline the process of developing apprenticeship programs, recruiting participants, and supporting employers thus reducing costs to the employer.⁷ Despite the upfront costs required of the employers, most find a positive return on investment.⁸

Apprenticeships have a long history in the U.S. Yet, despite their potential to increase employment and wages, they are not widely used, especially outside the traditional trades such as construction and utilities. The number of apprentices has grown 70 percent since 2011. In 2020, 636,000 people were actively participating in one of 26,000 registered apprenticeship programs across country.⁹ Even with this growth, the apprenticeships are much less common in the U.S. than in European Countries.¹⁰

Apprentices with Disabilities

Federal law and policy encourage the inclusion of people with disabilities in apprenticeship programs. The Americans with Disabilities Act (ADA) prohibits apprenticeship sponsors from discriminating based on disability and requires sponsors to provide reasonable accommodations to applicants and apprentices with disabilities to allow them to perform critical job functions. The Department of Labor's goal that seven percent of a sponsor's apprentices are to be qualified individuals with disabilities requires Registered Apprenticeship sponsors to go a step further and take *affirmative* action to recruit, hire, retain, and advance apprentices with disabilities.¹¹

The DOL's Office of Disability Employment Policy (ODEP) has invested in several programs to support the inclusion of people with disabilities in apprenticeship programs. The two-year Apprenticeship Inclusion Models (AIM) demonstration developed, tested, and disseminated best practices for making apprenticeship more accessible for youth and adults with disabilities. ODEP continues to fund the Partnership on Inclusive Apprenticeship to collaborate with employers and apprenticeship intermediaries to design apprenticeship programs that are available and accessible to people with disabilities. In addition to these initiatives focusing exclusively on disability, more than half of all federal apprenticeship grant programs have included disability as a targeted group.¹² Despite these initiatives, disability is still underrepresented in apprenticeship programs.

Data

There is no single repository of data from all of the Registered Apprenticeship programs. Data from most programs are maintained in the Registered Apprenticeship Partners Information Data System (RAPIDS) maintained by the U.S. Department of Labor's Employment and Training Administration (DOL-ETA). RAPIDS contains individual level data from the 25 states with federally administered apprenticeship programs and 18 federally recognized State Apprenticeship Agencies (SAAs). The remaining states provide aggregate data to the Department of Labor, but individual level data is not publicly available.

In 2017, DOL began requiring apprenticeship sponsors with five or more apprentices to invite all applicants and apprentices to self-identify their disability status, and sponsors were given two years to comply (29 CFR § 30.11)¹³. We analyzed the individual level RAPIDS data, restricting our analysis to apprentices who started after January 1, 2017. The data indicate the compliance rate has been steadily increasing, as shown in Table 2. By 2021, 62 % of apprentices reported their disability status compared with only 32% in 2017. Among apprentices who reported their disability status, the percentage reporting a disability increased from 0.7% in 2017 to 1.5% by Q3 of 2021.

Table 2: Disability Self-Identification among Apprentices 2017-2021

Year	Disability Status			Total	Percentage Reporting Disability Status	Percentage with Disability among those reporting Disability Status Y / (Y + N)
	Not Provided	No	Yes			
2017	96,479	44,542	296	141,317	32%	0.7%
2018	82,258	74,282	615	157,155	48%	0.8%
2019	74,120	88,179	1,305	163,604	55%	1.5%
2020	48,834	74,907	1,106	124,847	61%	1.5%
2021	25,527	41,207	641	67,375	62%	1.5%
Total	327,218	323,117	3,963	654,298	50%	1.2%

Source: Author’s analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021.

Apprentices with disabilities differ slightly from apprentices without disabilities (Table 3). Those with disabilities are less likely to be Latinx (15% versus 25%), more likely to be women (17% vs 9%), and more likely to be older (average age 32.9 versus 29.4). More than one-third (34%) of apprentices with disabilities are military veterans compared to 9% of those without disabilities. This is particularly relevant since veterans may be eligible for additional programs and funding sources.

Table 3: Characteristics of Apprentices by Disability Status

	No Disability	With Disability
Race/Ethnicity		
Non-Hispanic White	57%	64%
Non-Hispanic Black	12%	15%
Hispanic/Latinx	25%	15%
Indigenous	2%	2%
Asian/Pacific Islander	3%	3%
Other	1%	2%
Gender		
Female	9%	17%
Male	91%	83%
Age Group		
15-20	14%	10%
21-25	28%	20%
26-30	22%	21%
31-40	23%	29%
41+	13%	21%
Average Age	29.4	32.9
Veteran Status		
Veteran	7%	34%
Not a Veteran	90%	64%
Not Provided	3%	2%

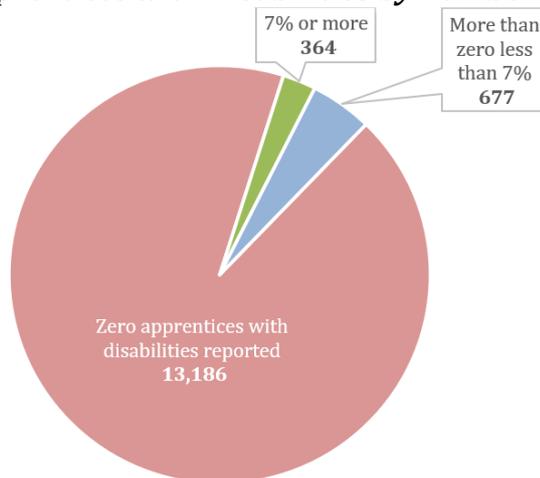
Source: Author’s analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021.

Note: Disability “not provided” is excluded from the table

Inclusion of Disability in Apprenticeship Programs

Despite DOL’s aspirational goal of 7% for participation by qualified individuals with disabilities in Registered Apprenticeship programs,¹⁴ only 364 (2.6%) of the 14,227 apprenticeship sponsors represented in the database were reaching the 7% goal in their apprenticeship programs. In fact, 13,186 sponsors (93%) did not record any apprentices with disabilities in the RAPIDS data.

Figure 1: Percentage of Apprentices with Disabilities by Number of Programs



Source: Author’s analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021

Most apprenticeships for people with disabilities are highly concentrated in a small number of programs, ranging from low-skilled housekeeping to construction and tech apprenticeships. Sixty-five programs (0.4% of all programs) accounted for over 50% of all apprentices with disabilities.

The largest sponsors of apprentices with disabilities take different approaches to including disability (Table 4). IN Laborers, a very large union, sponsored apprenticeship program, hosts 192 apprentices with disabilities accounting for 9% of its apprentices. Challenge Unlimited with 178 apprentices with disabilities focuses exclusively on apprenticeships for people with disabilities. Werner Enterprises, another very large program, actively recruits veterans, many of whom have disabilities, for its truck driver apprenticeship program.

Several organizations including Challenge Unlimited, Abilities First, and Puerto Rico for the Blind focus on lower skilled jobs such as housekeeper, cook, and sewing machine operator. Other programs such as Able Disabled Advocacy, Apprenti, and OpenTechLA focus on careers in technology. Others fall into the traditional and most common apprenticeship occupations like electricians and construction workers.



Table 4: Largest Sponsors of Apprentices with Disabilities in RAPIDS Database

Sponsor	Number of Apprentices with Disabilities (2017-2021)	Disability as a Percentage of All Apprentices who reported Disability Status	Occupation
IN Laborers	192	9%	Construction Laborer
Challenge Unlimited, Inc.	178	99%	Housekeeper
Werner Enterprises	162	4%	Truck Driver, Heavy
Able Disabled Advocacy	118	45%	Computer Support Specialist
Adaptive Construction Solutions	94	26%	Telecommunication Tower technician
Apprenti	80	13%	Computer Programmer
Lockheed Martin Corporation	71	9%	General Assembly/Installation
IBEW Local 102, JATC	50	38%	Electrician
Peckham	42	74%	Help Desk Technician
ExxonMobil Apprenticeship Program	40	17%	Refinery Operator
Amazon.Com Services, Inc.	40	9%	Electromechanical Tech
National Center for Healthcare Apprenticeships	39	8%	Home Health Aide
Abilities First	26	100%	Cook
Puerto Rico Industries for the Blind	25	100%	Sewing Machine Operator
OpenTech LA	25	37%	IT Project Manager
Fort Worth Plumbers & Pipefitters	18	10%	Plumber

Source: Author's analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021

Apprentices with disabilities are less likely to be in Union/Labor Organizations than apprentices without disabilities. Union/Labor apprenticeships account for almost half of all apprenticeships but only one-quarter of apprentices with disabilities (Table 5).

Table 5: Apprenticeship Sponsors by Disability Status, 2017-2021

Type of Sponsor	No Disability	Disability
Employer	24%	34%
Union/Labor	49%	25%
Other	5%	13%
Community Based Organization	1%	7%
Intermediary	1%	7%
Business Association	7%	4%
All Other (State, Federal or City/County Agency; Community College; Foundation; or Workforce Board)	12.7%	9%

Source: Author’s analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021

Table 6: Disability by Occupational Group, 2017-2021

Occupational Classification	No Disability	With Disability
Number of Apprentices	320,570	3,932
Construction and Extraction	69%	49%
Computer and Mathematical	1%	9%
Installation, Maintenance, and Repair	11%	9%
Production	4%	8%
Transportation and Material Moving	3%	6%
Building and Grounds Cleaning	1%	6%
Healthcare Support	1%	3%
Architecture and Engineering	1%	2%
Management	1%	1%
Personal Care and Service	2%	1%

Source: Author’s analysis of RAPIDS data base, Q3 2021. Based on apprentices with start dates in 2017-2021

Conclusion

With bi-partisan support, Federal and State Governments are committing resources to expanding apprenticeship programs, especially for underserved populations. These programs, which combine classroom learning with on-the-job training and a paycheck are a pathway to economic opportunity for many people, including those with disabilities. Although the number of people with disabilities participating in apprenticeships is growing, apprenticeship programs still have a way to go to meet the full DOL 7% goal of inclusion as only 1.5% of apprentices report having a disability.

Designing and implementing policies to address the underrepresentation of people with

disabilities in apprenticeship programs requires more analysis of the reasons behind their absence. A variety of causes may exist.

1. Firms or agencies recruiting for apprenticeships are discriminating against people with disabilities because of misconceptions of their productivity, or because of fear of the expenses associated with accommodations.
2. People with disabilities are not applying for apprenticeships, either because:
 - a. recruitment efforts are not well targeted;
 - b. they do not meet program requirements; or
 - c. they are concerned about losing cash and health care benefits associated with Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI), if the program does not work out, or other reasons.
3. They may be in apprenticeships but are not self-disclosing for fear of discrimination or maybe even because they do not consider themselves to have a “disability”.

Our continuing research will explore how these, or possibly other factors, are limiting the reported number of apprentices with disability, as an important step to fashioning the most promising means to close the disability apprenticeship gap.

Endnotes

- ¹ 117th Congress (2021-2022) . (2021, September 27). [H.R.5376 - 117th Congress \(2021-2022\): Build back better](#) ...H.R.5376 - Build Back Better Act. Retrieved January 25, 2022, from <https://www.congress.gov/bill/117th-congress/house-bill/5376>
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- ⁵ United States Department of Labor Employment and Training Administration. (n.d.). [The Federal Resources Playbook for Registered apprenticeship](#). Retrieved January 25, 2022, from <https://www.apprenticeship.gov/sites/default/files/playbook.pdf>
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- ⁷ U.S. Department of Labor Office of Apprenticeship. (n.d.). [Active grants and contracts](#). Apprenticeship.gov. Retrieved December 1, 2021, from <https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/active-grants-and-contracts>
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- ⁹ United States Department of Labor. (n.d.). [Data and Statistics: Registered Apprenticeship National Results Fiscal Year 2020 \(10/01/2019 to 9/30/2020\)](#). United States Department of Labor Data and Statistics. Retrieved January 25, 2022, from <https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2020>
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- ¹¹ This goal is consistent with the goal established by the U.S. Department of Labor (US DOL) Office of Federal Contract Compliance Programs (OFCCP) that applies to federal contractors and subcontractors
- ¹² U.S. Department of Labor Office of Apprenticeship. (n.d.). [Active grants and contracts](#). Apprenticeship.gov. Retrieved December 1, 2021, from <https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/active-grants-and-contracts>
- ¹³ 29 CFR § 30.11
- ¹⁴ 29 CFR § 30.7 - This goal is consistent with the goal established by the U.S. Department of Labor (US DOL) Office of Federal Contract Compliance Programs (OFCCP) that applies to federal contractors and subcontractors.