



Barriers and Facilitators to Employment and Careers for Young Adults on the Autism Spectrum

Summary of Listening Sessions with Young Adults and Other Stakeholders

November 2022

Marisa Shenk and Kimberly Aguillard

Submitted to:

U.S. Department of Labor
Office of Disability Employment Policy
200 Constitution Avenue, NW
Washington, DC 20210
Project Officers: David Rosenblum and Amy Fong

Submitted by:

Mathematica
1100 First Street, NE, 12th Floor
Washington, DC 20002-4221
Phone: (202) 484-9220
Fax: (202) 863-1763

This page has been left blank for double-sided copying.

Acknowledgments

We thank the many people who contributed to this report.

We are especially grateful to the over 140 people who participated in listening sessions and provided input on barriers and facilitators to employment for young adults on the autism spectrum, shared personal stories, and added context to the nuanced obstacles this population might face in seeking and retaining work.

We also acknowledge the valued support at the U.S. Department of Labor's Office of Disability Employment Policy. We particularly thank the project officers, David Rosenblum and Amy Fong. We also received valuable comments from Scott Robertson to make the listening sessions more accessible.

At Mathematica, Yonatan Ben-Shalom and Paul Shattuck provided guidance for the listening sessions and careful review of this report. Ankita Patnaik and Laura Kosar led the project. Beth Varley, Tobin Stone, and Andrew Krantz supported the listening sessions. Susan Gonzales provided editorial assistance and Jill Miller provided production support.

Contents

Acknowledgments	iii
Acronyms	v
Executive Summary	vi
I. Introduction	1
II. Listening Session Approach	3
A. Two types of sessions.....	3
B. Meeting content and structure	3
C. Participant confidentiality	6
III. Findings from Listening Sessions	7
A. Young adults on the autism spectrum.....	7
B. Advocates and policymakers	8
C. Direct service providers	10
D. Educators.....	11
E. Employers.....	13
F. Researchers	15
IV. Key themes in participant perspectives	18

Acronyms

ADA Americans with Disabilities Act

CIE competitive integrated employment

DOL U.S. Department of Labor

EARN Employer Assistance and Resource Network on Disability

IRB institutional review board

JAN Job Accommodation Network

ODEP Office of Disability Employment Policy

VR Vocational Rehabilitation

Executive Summary

The Office of Disability Employment Policy (ODEP) in the U.S. Department of Labor (DOL) seeks to understand the barriers and facilitators to employment and careers for young adults on the autism spectrum.¹ ODEP contracted with Mathematica to conduct listening sessions with several key groups to collect input on these topics. These groups included young adults on the autism spectrum, advocates and policymakers, direct service providers, educators, employers, and researchers.

Two types of listening sessions

- Groups of professionals working with young adults on the autism spectrum
 - Five sessions from February—April 2022
 - Specific sessions for each professional perspective: advocates and policymakers, direct service providers, educators, employers, and researchers
- Groups of young adults on the autism spectrum
 - Four sessions in March and April 2022
 - For young adults on the autism spectrum to share their experiences with employment
 - All participants compensated for their time
 - First session—participants recruited from the networks of people participating in the listening sessions for professionals
 - Later sessions—participants recruited from invitations on social media

Key themes that we heard about during the listening sessions include:

- **The job search, and finding a good work environment, can be difficult for young adults on the autism spectrum.** Many participants described negative work experiences. Some submitted applications and never received a response from employers. Inflexible work environments and unresponsive management caused several participants to quit their jobs. Some of these participants were still searching for new jobs weeks or months after leaving their previous jobs.
- **Family members, friends, and staff from job readiness programs were important sources of encouragement and advice for autistic young adults seeking work.** Participants indicated that encouragement from key supportive networks is often what keeps them going in difficult times. These supportive people often offered advice about looking for and keeping employment, including strategies for professional behavior in the workplace. Young adults also found it helpful to meet other autistic people, particularly those who are employed. These interactions gave them hope, built their

¹ The REYAAS project relies on the person-first phrasing “young adults on the autism spectrum,” as this is the preferred, though not universal, method in the research community. This is not necessarily the preferred phrasing in the community being studied.

self-esteem, and demonstrated people on the autism spectrum can thrive at work and have meaningful employment.

- **Lack of access to certain supports might be a barrier for young adults on the autism spectrum becoming employed.** For some, lack of access might be due to the cost of receiving a formal diagnosis, which is often required to be eligible for some services. Other participants noted that autistic young adults may lack access to transportation, technology, or program materials in their family's native language. In addition, some participants noted a need for more ongoing employment supports to help people on the autism spectrum navigate work changes.
- **Paid internships, career mentoring programs, and customized employment are viewed as promising ways to increase long-term employment.** Several young adults with previous internships noted that those experiences helped build their resumes and gave them a chance to prove their capabilities. Across the country, researchers and service providers described many small "pockets of excellence" of employment development and support for people on the autism spectrum.
- **Generalizing and scaling services for young adults on the autism spectrum is challenging.** Some participants stated that encouraging effective programs to publicize their findings would help others learn about and possibly replicate their success. Others suggested that large established national programs, such as American Job Centers, Job Corps, and national Registered Apprenticeship programs, might be good partners. The size and reach of these programs present an opportunity to exponentially increase employment possibilities for young adults on the autism spectrum.
- **Autistic job seekers need greater and enhanced supports and services to prepare them for employment.** Some educators noted that funding for self-advocacy and programs enhancing interpersonal skills is very limited, yet these soft skills are essential to secure and retain work. According to these participants, young adults on the autism spectrum need training on how to highlight and market their strengths as job candidates and employees. Many programs and interventions designed for young adults on the autism spectrum primarily focus on how to secure a job. Some participants also wanted programs that focus on how to retain a job and advance on a career path.
- **Cultural shifts and training for employers could help ensure accessible recruitment, hiring, and work environments.** Participants stated that employers need better access to quality training to help them understand and value neurodivergent people. Ideally, people on the autism spectrum and other people with disabilities would help shape this training.
- **Every stakeholder group highlighted barriers in the typical recruitment and interview process.** Advocates stated that technology can inadvertently screen out people on the autism spectrum who are fully qualified for the positions they are seeking. Some employers noted that typical interviewing techniques often rely heavily on a candidate's ability to articulate, self-promote, process, and respond to questions quickly and expressively. These participants suggested that more job tests and fewer behavioral interviews could help ensure job seekers on the autism spectrum who are capable and qualified are not overlooked, and that autistic young adults might benefit from coaching, mentoring, or more clear communication from employers about expectations throughout the recruitment process.
- **Researchers, service providers, and other participants suggested that more research is needed to understand the population of young adults on the autism spectrum, including:**

- Research on population characteristics, services, and outcomes
- Long-term research on work status and role within companies, including promotions

I. Introduction

The Office of Disability Employment Policy (ODEP) in the U.S. Department of Labor (DOL) seeks to understand the barriers and facilitators to employment and careers for young adults on the autism spectrum. To collect input on these topics and engage a range of stakeholders, ODEP contracted with Mathematica to conduct a series of listening sessions with several key groups. These groups included young adults on the autism spectrum, advocates and policymakers, direct service providers, educators, employers, and researchers.

This report summarizes content from the listening sessions. We aimed to gain a greater understanding of the factors that influence the employment experience of young adults on the autism spectrum, and the implementation of related policies and programs. Employment and job support services represent a complex set of interrelated activities that involve many sectors, organizations, and people holding a variety of roles. Engaging multiple, varied stakeholders in the design, implementation, and dissemination of research improves its quality and usefulness. Soliciting their input also increases the likelihood that we can ultimately offer recommendations for practice and policy that are effective and improve employment outcomes.

The transition from school to work involves many people and stakeholders beyond just the teens or young adults and their family members. Finding and keeping a job relies on the views and actions of educators in secondary (and potentially post-secondary) education as well as employers—from senior management to frontline supervisors and coworkers. In addition, many young adults engage with direct service providers and programs aimed to increase their employment opportunities. For young adults on the autism spectrum, the attitudes and actions of educators, direct service providers, and employers are intermingled in a complex ecosystem of policies and organizations intended to support them as they start work and sustain employment. Young adults must secure training and education to prepare them for work and progress in their careers. These steps or skills might include:

- Becoming job-ready
- Looking for work
- Completing the job application process
- Interviewing for jobs
- Onboarding in a new position
- Identifying and securing any needed accommodations
- Collaborating with colleagues
- Developing the skills that enable them to progress in their career

Reflecting that young adults not only need to find work but also to remain at work over a longer period, the session organizers incorporated perspectives from young adults on the autism spectrum and their families, advocacy organizations, direct service providers, educators, employers, policymakers, and researchers. Each of the stakeholder groups had valuable insights into one or more facets of the employment lifecycle and employment support experiences of young adults on the autism spectrum.

In the remainder of the report, we first describe our approach to recruiting, scheduling, and hosting the listening sessions. We then summarize the findings from each session. We conclude by highlighting themes and gaps from the findings. All of the findings, ideas, and suggestions in this report reflect the

perspectives and opinions of the participants with whom we spoke. While the findings of this report provide insight into the experiences and perspectives of these groups, we caveat that they might not generalize to all autistic young adults or stakeholders.

II. Listening Session Approach

In this section, we detail our approach to planning and facilitating the various listening sessions, including the two types of sessions we organized along with details on their content and structure. In addition, we provide an overview of Mathematica's independent institutional review board (IRB) approval and process to protect participant confidentiality.

A. Two types of sessions

In this section, we describe the two types of sessions we held: (1) sessions with specific groups representing different professions and (2) sessions with young adults on the autism spectrum. Separating these groups enabled us to focus discussion on topics most relevant to the participants. Although some stakeholders might span multiple groups, we asked participants to attend a single session.

We hosted five sessions with groups of professionals working with young adults on the autism spectrum in areas connected to youth transition and employment from February through April 2022. We invited each participant to a specific listening session based on the perspective they represent: advocates or policymakers, direct service providers, educators, employers, and researchers. For these sessions, we prepared a targeted list of potential participants based on several sources. First, we prepared a list of possible participants identified through our review of publications and our review of programs offered by employers, labor market intermediaries, and other service providers. Second, we enhanced this list with recommendations from ODEP, the project's technical working group, and staff at Mathematica knowledgeable about issues related to youth in transition. We aimed to include a varied group representing different roles, geographic areas, and demographics.

We hosted four listening sessions with young adults in March and April 2022. These sessions were for young adults on the autism spectrum who wanted to share their experiences in transitioning to work. Families and unpaid caregivers of young adults on the autism spectrum were also allowed to attend in recognition that those with more significant challenges to employment might rely on support from family members and caregivers to work. Although this project defines young adults as between the ages of 16 and 28, we expanded the age range for the listening sessions to include those ages 14 to 30.² We captured input from these audiences through both virtual meetings and written correspondence. For the first session, we drew on the networks of participants in the first set of listening sessions we described above. For later sessions, we posted invitations to social media including Twitter, Facebook, and LinkedIn. Participants in these public sessions were compensated for their time.

B. Meeting content and structure

We designed the listening sessions to solicit open-ended input on the barriers and facilitators to work for young adults on the autism spectrum ages 16 to 28, consistent with the age range of interest to ODEP. Each session began with an introduction to the project and its activities. We described project reviews of the extant literature and the goals of possible future data collection activities and intervention designs. We tailored the introductions to highlight the high-level topics we were particularly interested in covering with each group (Table 1).

² Many U.S. states require transition planning for students with disabilities starting at age 14.

Table 1. Summary of listening sessions and discussion topics

Stakeholder group	Discussion topics	Number of participants
Young adults	- Experiences (both positive and negative) with finding work and staying employed - Experiences (both positive and negative) with employment-related programs to support autistic or disabled young adults - Employment goals and preferences, and the extent to which young adults believe they can achieve their goals (and over what time frame) - Perceived barriers to employment and use of employment-related programs - Parent/caregiver beliefs on the importance of youth being independent and their expectations around young adults' future employment and financial and residential independence	97
Advocates and policymakers	- Key ingredients, players, and factors for effective policies and programs - The extent to which key factors work universally or might need to be adapted for varied populations - Existing federal or state-level “levers” to support programs that aim to promote employment for young adults on the autism spectrum - Awareness of incentives or disincentives to employment in federal or state programs for young adults on the autism spectrum, and ideas for remediation if needed	8
Direct service providers	- Whether and how programs and services are tailored to young adults on the autism spectrum and young adults with any disability - Distinguishing features of each program and commonalities across programs - The role of evidence in designing programs or evidence generated by evaluating programs - Perceived barriers that autistic young adults face in finding and retaining employment - Perceived necessity and/or effectiveness of certain services for young adults on the autism spectrum - Differences in experience working with employers based on firm size, industry, or other characteristics - Challenges hiring, training, and retaining direct service professionals who work in employment services	16
Educators	- The role of high schools and colleges in helping young adults on the autism spectrum find work and stay employed - The extent to which educators are aware of the employment supports young adults on the autism spectrum need to work - Awareness of programs to support work among autistic young adults, including those that are employer-sponsored - Challenges hiring, training, and retaining educational staff who provide vocational and employment-related teaching and support	6

Stakeholder group	Discussion topics	Number of participants
Employers	• Perceived benefits and challenges of hiring autistic workers • Awareness and appraisal of supports and services available to employers in hiring and retaining workers on the autism spectrum • Ideas for improving supports to help employers reach and refine options for people without consistent Internet access, in remote geographic areas, lacking access to reliable transportation, or facing other challenges to work • Partnerships with specific programs or service providers and the perceived benefits and challenges of partnerships • Differences in recruiting and hiring young adults on the autism spectrum based on the size of the firm	12
Researchers	• Landscape of existing interventions, policies, and programs aimed at improving employment outcomes for young adults on the autism spectrum • Funding sources, scaling, and sustainability for promising interventions • Existing data on autism identification, service engagement among autistic young adults, or employment outcomes for people in that group • Methodological considerations specific to this population • Potential for research to test promising employment interventions	6

We scheduled each listening session for 90 minutes. Listening sessions occurred virtually using Webex, which allowed us to offer real-time automatic captioning, session recording (for transcription), and dial-in options for people without consistent Internet access. Offering these meetings virtually ensured we could proceed regardless of current COVID-19 conditions and incorporate geographic variation in the sessions, from across the country and spanning both urban and rural settings.

Each session had two or three meeting facilitators to make sure the conversation flowed while ensuring that all voices were heard, including those represented in the online chat. We encouraged all participants to submit any additional input via email after the session ended. We also encouraged the participants we recruited but who were unable to participate to submit written comments by email. By the end of our listening sessions, we received four emails from participants providing additional thoughts or comments.

C. Participant confidentiality

All listening sessions received approval from Mathematica's independent IRB before participant recruitment, listening session planning, and listening session facilitation. IRB approval is required when collecting responses from people for research purposes that could be stigmatizing. We received approval through an expedited review on December 27, 2021. To secure expedited review, we took measures to minimize the likelihood of identifying people: allowing anonymous participation, securely deleting the recordings, and not attributing responses to specific people in the transcripts that we retain. We recruited participants primarily from the United States, given DOL's domestic focus, although we reserved the possibility of recruiting participants from other countries, based on their experience or research with employment policies and programs.

All participation in the listening sessions was voluntary, and participants were compensated for their time. We recorded our listening sessions with the consent of participants, noting that we would only keep the chat log and video recording for our own notetaking purposes. We saved the chat logs and recordings on a secure server and deleted them upon conclusion of this task. We also asked that participants not repeat any comments made during the listening sessions outside of the session.

We sent electronic consent forms to participants ahead of each listening session, to be completed prior to the session. These consent forms described the purpose of the study, virtual format, notification of recording, voluntary participation, compensation for participation, and benefits and risks of taking part in the study. For participants under the legal age for consent to participate in research, we collected youth assent on a separate form, along with consent from the youth's parent or caregiver. The IRB reviewed and approved the consent and assent forms.

III. Findings from Listening Sessions

In this section, we summarize findings within each of the six stakeholder groups who participated in the sessions: young adults and their family members, advocates and policymakers, direct service providers, educators, employers, and researchers.

A. Young adults on the autism spectrum

We spoke with 97 young adults on the autism spectrum. We recruited this group from the networks of participants in other sessions as well as the public.

Young adults shared key motivating factors, career goals, and preferences for the work environment.

- Participants shared that they want financial security from work, which they viewed as important to their independence and an opportunity to support their family.
- Participants reported other motivations to “give back” to their communities, have fulfillment, learn new skills, build relationships with work teams, make a difference, create things, change mindsets, and address stereotypes.
- Participants described preferences for a work environment that supports their job performance. Several young adults wanted clear communication about work tasks and expectations, an organized workplace, a flexible schedule, a quiet environment, and opportunities to contribute and have their perspectives taken seriously. Many people also expressed a desire to be accepted and viewed as an equal at work.

“Being supported at work feels good e.g., being treated equally like others, secondly them being understanding of my way of talking, next being given opportunities to learn more.”

The job search, and finding a good work environment, can be very difficult for young adults on the autism spectrum.

- Many participants described submitting applications and never hearing back from employers.
- Young adults described managers as instrumental in setting the tone for the work experience. Managers who are understanding and willing to discuss and provide accommodations helped make their work experiences positive. Conversely, managers who were not respectful and/or aware of support needs made their job environments difficult.
- Some participants also described how supportive co-workers helped them adjust and flourish at work. One participant shared that she initially had anxiety when speaking with customers, but co-workers saw she was struggling and helped. This individual’s desired career is catering, so interacting with customers is an area where she needed more confidence.
- Many participants indicated that colleagues at work made them feel inferior. Others shared they have felt micromanaged or closely monitored at work before, because people have doubted their abilities. Participants expressed that knowing where to ask for support is helpful, but they also want to be able to have support removed when it is not necessary anymore.

- Several participants described negative work experiences in fast-paced, unpredictable work environments, particularly when they did not have a quiet place to go when they needed a break. Inflexible work environments and unresponsive management caused several participants to quit their jobs. Some of these participants were still searching for new jobs at the time of the listening session, weeks or months after leaving their previous jobs.

“So many jobs they said to me, like, ‘do this at all times’ and ‘keep a smile on your face at all times’ and ‘do 10 things at once.’ So whatever I do next, I want something less chaotic.”

Family members, friends, and staff from job readiness programs were important sources of encouragement and advice.

- Participants indicated that encouragement from key supportive networks is often what keeps them going in difficult times. Young adults wanted to make people who care about them proud.
- Often family, close friends, and teachers or program staff provided advice about looking for and retaining employment, including strategies for professional behavior in the workplace.
- Young adults found it helpful to meet other autistic people, particularly those who are employed. These interactions gave them hope, built their self-esteem, and demonstrated that it is possible for people on the autism spectrum to thrive at work and have meaningful employment.
- Participants described connecting with other people on the autism spectrum, networking, and having access to a training opportunity or internship as critical to finding a job and having success at work.
- One participant described a helpful program for “autism awareness, to motivate and encourage each other.” Another participant shared that working with some programs helped them gain confidence, and they no longer have to hide their disability. Another person described doing an internship and participating in an autism program, which helped them appreciate and accept their autism.
- Participants shared that they were able to secure jobs after they had a chance to prove themselves. One person started with an unpaid internship that led to a job offer. Another had an internship in high school and secured a job because the employer saw his potential in his resume.

“I enjoy working with others who are neurodivergent because I would never be as confident or successful if it wasn’t for older neurodivergent workers who took me under their wing and showed me it was possible.”

B. Advocates and policymakers

We spoke with eight advocates and policymakers. They represented advocacy groups, self-advocates, and state and federal government offices with an interest in improving outcomes for young adults on the autism spectrum. We recruited this group from our targeted list.

Advocates noted that various settings, policies, and programs might create additional barriers related to access to resources and channels to employment.

- Advocates noted that many programs supporting the employment of young adults on the autism spectrum assume a level of access to technology. For example, many of these programs assume that everybody has access to the Internet and to a printer that has ink and that works. Many documents are uploaded in PDF format and cannot be transferred to other formats to be more compatible with accessibility software. Youth in rural communities that lack access to high-speed Internet face challenges accessing job openings, remote work opportunities, and trainings.
- Advocates stated that the availability of resources in multiple languages varies regionally. Although most resources at the federal level are available in multiple languages, other levels of services such as local programs or state agencies may not make information or application materials available in other languages. They noted that youth who are assisted by a non-English-speaking parent need to understand concepts that are not easily translated.
- Participants discussed the challenges of some program-level eligibility rules and policies, which do not always reflect the reality of neurodivergent people. For example, even U.S. citizens might not have all the necessary documentation for many programs, such as a driver's license, photo ID, or a bank account.
- Advocates stated that agencies and other job coaching programs do not always acknowledge that the person they are serving might have multiple disabilities and might need accommodations for all of them. According to some advocates, many assumptions underpin perceptions about what kind of person on the autism spectrum might seek employment or be employable.
- Participants conveyed that many of the effective, well-established job resources, including American Job Centers and Registered Apprenticeship programs, are not readily accessible to young adults on the autism spectrum or their families. They described barriers to accessing these resources including lack of awareness, out-of-date information or misunderstanding of the program eligibility or application process, or lack of integrated service coordination.
- Participants stated that the hours that many programs are available do not reflect the reality that many families might have transportation or mobility challenges or other responsibilities that conflict with these hours.

There is a role for the federal government to model accessibility and support promising practices.

- Participants reiterated that a job in the community where people with disabilities work only with other people with disabilities, do not control the terms of their own employment, and do not have the same path to advancement as those without disabilities cannot be considered competitive integrated employment (CIE).
- Participants indicated that a broader “culture change” led by the federal government is needed to make sure that employers use accessible application and hiring practices and adopt a vision for a workforce accessible to the neurodivergent. For example, the Administration for Community Living, an agency that is part of the U.S. Department of Health and Human Services, has highlighted the Mentra platform, which uses artificial intelligence to match neurodivergent candidates to employers using strengths and skills. In contrast, participants noted that some employers use

artificial intelligence quizzes to screen out applicants if they do not answer questions in a socially “correct” way.

- Some policymakers noted that smaller, regional employers might be open to alternative hiring processes and accommodations, but they need support and training. From the state perspective, an important next step is creating resources to make the hiring process more seamless, accessible, and inexpensive.
- Participants suggested that ODEP could work with workforce development staff to ensure that customized employment and other assistance are individualized. Some participants also suggested providing technical assistance to help staff determine the strengths, goals, and abilities of non-speaking autistic people.

Examples of supports that might encourage accessibility

- Increasing funding for transportation supports, supported employment, and CIE
- Strengthening the link between American Job Centers and other workforce development services
- Creating integrated ways to share information and resources
- Expanding career mentoring services for people with significant disabilities to boost their skills, abilities, and workplace readiness

C. Direct service providers

We spoke with 16 people representing 12 direct service providers. Participants represented different kinds of organizations. Many of the organizations helped employers recruit and retain neurodivergent workers, provided training or work experiences to people on the autism spectrum to prepare them for longer term work settings, or prepared and matched young adults leaving educational settings to employment opportunities. We recruited this group from our targeted list.

According to direct service providers, there are several persistent issues in the current workforce development system that act as barriers to employment.

- Direct service providers highlighted a need for greater coordination across organizations, sectors, and programs to encourage collaboration, increase impact, avoid duplication of efforts, and make the system easier to navigate for people on the autism spectrum and their families. For example, they suggested that more proactive overlap and transition services are needed to address loss of service that often occurs upon completing or leaving high school, such as paid internships and enhancing interpersonal and soft skills.
- Participants also described a gap after workers secure employment; employers might be unable to provide intermittent supports, such as benefits counseling.

- Some service providers suggested that a more formal structure for collaboration and care coordination might help families and job seekers learn about and access available services.

Direct service providers noted that some populations might face additional challenges to securing or retaining employment or to accessing services in the first place.

- Some providers indicated that the high cost of obtaining a formal autism diagnosis acts as a barrier to services for many people because formal identification is a requirement for accessing some services.
- According to direct service providers, there is a need to prepare job seekers and employees to navigate and handle racism or sexism in the workplace.
- Service providers described several challenges autistic young adults may face accessing services. They noted that limited funding in the Vocational Rehabilitation (VR) system, geographic mismatch between job seekers and direct service providers, lack of understanding around autism and intellectual disabilities in major youth employment programs, and VR's order of selection prioritization can prevent job seekers from accessing the services needed to secure the best job fit. For example, some

Examples of data that service providers could use to focus their services

- New data on graduation and employment rates by career path or college major for young adults on the autism spectrum.
- Longitudinal data to understand gaps around promotions or job tenure for workers on the autism spectrum. Many people on the autism spectrum secure short-term work, such as internships or contract labor, but most data sources do not capture long-term outcomes.
- More data on population characteristics, services, and outcomes.

workers on the autism spectrum can navigate some competitive workplaces and “do not meet eligibility criteria” for services but might nonetheless have significant support needs in different work environments.

- Service providers stated that employment programs and apprenticeships need to be more accessible and offer accommodations, such as different weekly working hours requirements.

D. Educators

We spoke with six educators. Participants represented community colleges, universities, and apprenticeship programs. We recruited this group from our targeted list and recommendations from technical working group members.

Educators described several barriers to employment for young adults on the autism spectrum, including technology and transportation.

- Educators noted that technology barriers, such as computer-based applications and interviews, create challenges for people on the autism spectrum to obtain a job, even on a trial basis, which can limit opportunities. They suggested that there is room to grow to help students access and maintain employment and hands-on work experience.
- Educators described transportation as a common issue because programs usually cannot cover costs and parents who are generally working cannot take students to work or other activities. They noted the importance of educating families and youth on the autism spectrum and/or with other developmental disabilities about local transportation options prior to aging out of school.
- Participants noted that teachers have time constraints and juggle many competing priorities, and they often lack training or experience on how to empower people in the employment process or help autistic young adults develop soft skills. Some educators stated that, at a minimum, teachers should be able to point families and people in the right direction and have a collaborative working environment with service providers.

Educators also noted that a lack of self-advocacy skills can be a barrier to employment, and family or cultural context might influence the development of self-advocacy skills.

- Educators stated that each person needs to decide whether, how, and when to disclose their autism. Voluntary self-identification is key in accessing accommodations at the outset and enabling self-advocacy. For those who do not disclose their autism, a job coach might not be able to effectively assist them with accessing the appropriate services or accommodations, and an employer response might not address the worker's needs. For example, one educator noted that a manager might seek disciplinary action for a performance or conduct issue that could have been avoided with appropriate accommodations.
- Some educators described challenges around families who do not want their child to know about their disability, do not believe that a mental health condition is a disability, or think that asking for help is a weakness. According to the educators with whom we spoke, these mindsets can be detrimental to some students who have documented disabilities because they feel that it might be shameful for their families to reach out to obtain help. Teachers reportedly find it difficult to address those disabilities or accommodations knowing that autistic young adults will need to self-advocate in the workplace and that their disabilities are an important piece of who these students are. This can result in a lack of family and community supports, particularly in rural areas where opportunities to practice skills or to experience different social contexts might be hours away and transportation is scarce.
- Some participants noted that other families emphasize academics over other experiences and opportunities that make students more competitive for employment later. Although it might make sense in the short-term to focus on academics, these educators stated that lack of extracurricular or volunteer experience leaves young adults on the autism spectrum behind their peers by graduation.
- Educators indicated that different cultural contexts can influence the development of self-advocacy skills, such as being from a culture that has high levels of familial involvement. Cultural norms might also affect whether educators or families address behaviors that can cause challenges in securing or retaining employment.

Examples of best practices and opportunities to support employment for youth on the autism spectrum while they are still in school

- Providing job experiences, such as immersive internships, which can help identify accommodation needs, an individual's interests, and how to plot a trajectory for a permanent job
- Identifying other people on the autism spectrum who can serve as role models to help young adults and their families understand employment strategies and possibilities
- Scaling promising programs that implement customized employment
- Gathering survey data about employers' and students' perspectives on what skills are needed in the workplace and employers' perceptions about employing people with disabilities (results could shed light on education needed to address misperceptions)

E. Employers

We spoke with 12 people representing 9 employers. Participants represented both employers who primarily employ workers on the autism spectrum and large organizations with specific neurodivergent recruitment efforts. We recruited this group through our targeted list, a post on social media, and ODEP's help distributing our invitation through the Employer Assistance and Resource Network on Disability (EARN) and Job Accommodation Network (JAN).

Employers identified several systems-level barriers to sustained employment of neurodivergent workers.

- Employers perceived both a business case and a human case for hiring people on the autism spectrum and emphasized that hiring autistic people is not considered charitable or a "pet project."
- Employers highlighted that every city and state has a different set of players and ecosystems (including VR, workforce boards, and nonprofit organizations), and each jurisdiction operates differently.
- Representatives of larger companies stated that they have been able to draw on their internal infrastructure and build their own recruitment pipelines, which would not have been possible without their own resources. They also had to build these pipelines and partnerships in each jurisdiction and, in some regions, were not able to do so due to the absence of local resources and partnerships.
- Participants indicated that small- and medium-sized employers might not have the budget to provide needed training to ensure welcoming workplaces and policies to hire and retain neurodivergent workers.

Employers highlighted several best practices for accessible hiring and supporting autistic workers.

- Employers who successfully hired workers on the autism spectrum designed their work and accommodations to be accessible. They noted that people who might benefit from key services might not seek services proactively. Assistance for people on the autism spectrum, and people with other non-apparent disabilities, can require unique supports that might not be available through existing support systems.
- Several employers had moved away from using behavior-based interviews in hiring, which were traditionally built for and by neurotypical individuals. For example, one employer shared their efforts to create more transparency and objectivity in the recruitment process, which it has found benefits people on the autism spectrum as well as neurotypical job candidates.

Examples of accessible practices for job applicants or employees

- Including language in all job announcement explicitly encouraging neurodivergent candidates to apply, not just some job announcements
- Removing college degree requirements and evaluating candidates based on concrete skills
- Including a recruitment overview document that outlines what a candidate can expect throughout the screening process and interview
- Including a job test to provide an opportunity to demonstrate skill that does not rely on a particular communication style or preference
- Offering different modes of communication and interaction to every candidate, so that applicants do not need to request accommodations or disclose their status upfront as often
- Phrasing interview questions to be more specific and reduce ambiguity
- Providing a structured work environment, such as making job expectations and instructions clear and providing formal or informal training or job coaches
- Providing regular, sensitive, direct feedback regarding performance, as well as reassurance
- Discussing and then providing accommodations and offering to reduce sensory distractions
- Removing traditional annual reviews and instead creating clearly defined career paths with concrete milestones so employees know what skills and experiences are needed to progress in their career

Employers suggested opportunities for more robust guidance and supports.

- Participants stated that although employers might be enthusiastic or open to hiring people on the autism spectrum, many do not know where to find funding or help to create actual systemic change.

- Employers described ongoing access to job coaching and other supports as critical to retaining employees on the autism spectrum. For example, some stated that employees who qualify for job coaching from VR agencies only receive it for 90 days but might need this service months or years later in order to retain their jobs or advance in their careers.
- Employers indicated that there may be some uncertainty about the legal implications of altering the interview process in terms of DOL regulations (Section 503).³ Employers are reportedly reluctant to alter their usual recruitment and interview process, and often seek citations and permission expected by their legal counsel. Though employers may be allowed to alter the interview process, depending on the circumstances, participants suggested that DOL could offer additional guidance to alleviate these concerns so employers know when an adapted process will not be considered discriminatory.

F. Researchers

We spoke with six researchers. They represented colleges, universities, research labs, and one independent autism research organization. We recruited this group from our targeted list.

Mismatches between research and practice pose challenges for increasing employment opportunities for young adults on the autism spectrum.

- Participants indicated that the field of employment services for young adults on the autism spectrum moves faster than research in this area. Many programs claim to serve this population but have no base in evidence. Families and school systems are reportedly starving for evidence-based programs. However, researchers acknowledged that the process to translate or scale evidence-based interventions is complicated and that many intervention practitioners lack training on how to bring evidence-based programs to scale.
- Researchers stated that many employment interventions for autistic people focus on life skills and how to attain a job, rather than on how to keep a job and build a career.
- Participants described significant data and measurement gaps in the research on employment for young adults on the autism spectrum.

³ Section 503 of the Rehabilitation Act of 1973 applies to certain federal contractors or subcontractors and prohibits employment discrimination against people with disabilities.

Researchers have identified evidence-based interventions and evaluations, but they have trouble scaling them amid a fractured landscape of services and interventions.

- Researchers described small “pockets of excellence” of employment development and support for people on the autism spectrum across the country. They suggested that encouraging these programs to increase dissemination would help others to replicate and increase reach. For example, the prototypical Project SEARCH as well as the version adapted specifically for youth on the autism spectrum have strong data and good outcomes. However, each site only serves a handful of students each year.
- According to participants, large teams conduct intervention research, but real-world settings often lack that level of support, so interventions are not able to scale with fidelity.
- Researchers stated that community partners often do not want to participate if there is no back-end support for sustainability. Some participants highlighted the importance of considering how to create infrastructure at a state level to support ongoing sustainability on the front end of developing interventions.
- Participants noted the difficulty in expanding evaluations to settings beyond high school. For example, securing funding to evaluate interventions for community-based services is reportedly a challenge because findings are not very generalizable in this landscape.
- Researchers noted that paid internship programs are significant predictors of employment outcomes. The California Department of Rehabilitation has several work programs that offer paid internships for people on the autism spectrum that do not cost the company. Another program at Stanford University, supported by Autism Speaks, is trying to support 80 autistic people with longer term, more integrated employment opportunities. They provide support on the employment side and individual support in the recruitment phase and the first three months after onboarding.

Examples of data and measurement gaps

- Outcome measures across different studies are inconsistent; it is difficult to do a meta-analysis to gauge effects.
- There is little long-term data because it is difficult to follow individuals for longer than a year.
- Large datasets from school systems and VR settings could be combined to understand the trajectory of people moving from one system to the other.
- Employment only indicates positive quality of life if an individual is satisfied with a job, so job satisfaction and quality of employment should be a factor in any research.

Buy-in, collaboration, and shifting perspectives on outcomes could increase employment success.

- According to the researchers with whom we spoke, sustained employment requires focusing on the environment rather than just on individual support. They stated that employers need to be committed

to hiring people on the autism spectrum or with other neurodivergent perspectives, and culture needs to change. Small- and medium-sized businesses might need funding for training and human resources support. Participants described an opportunity for larger businesses to pair with researchers to understand the success of their hiring efforts.

- Participants noted that some parents need more education on what is possible for their children to have a vision beyond entry-level employment.
- Some researchers noted that the general public lacks awareness about whether people on the autism spectrum are eligible for accommodations under the Americans with Disabilities Act (ADA) and what types of accommodations would benefit autistic workers. They suggested that more specific information on workplace accommodations under the ADA for people on the autism spectrum would be beneficial.
- Researchers stated that adapting large-scale national programs and services, such as Job Corps and American Job Centers, for neurodivergent conditions (including autism, attention-deficit/hyperactivity disorder, and dyslexia) would help a significant portion of the population and potentially address multiple needs. For example, one researcher suggested that better understanding of means of improving executive function would cross neurodivergent conditions.
- Some participants noted that further collaboration between agencies could help make employment for people on the autism spectrum a national priority.

IV. Key themes in participant perspectives

In this section, we synthesize key themes in terms of the themes across all nine listening sessions. A few commonalities that emerged in the perspectives and opinions of participants across all nine listening sessions. As a reminder, these themes emerged from the information that listening session participants shared about their experiences and opinions in their own words, but they might not generalize to all autistic young adults or stakeholders.

Almost universally, participants noted that the current state of services presents challenges for young adults, family members, educators, employers, and direct service providers. Every listening session emphasized the difficulty of navigating complex services, which makes learning about, accessing, and coordinating services and supports difficult for young adults and their families. The state of services also presents challenges for educators, employers, and direct service providers. The interplay of agencies and programs differs across and within states; strategies and partnerships that work in one jurisdiction might not apply to another area. Another consequence of a fragmented and complex system is that many supports end abruptly when a young adult leaves school or begins work. Without coordination and transition services, many young adults do not have the support they need to stay in jobs or advance in their careers.

Many services require a formal diagnosis, which may pose a financial barrier for some families. Several stakeholders and young adults on the autism spectrum also indicated that programs are often too narrow in focus, encouraging young adults to explore only very few types of work or only engaging with young adults on the autism spectrum who have lower support needs.

Some participants suggested that a more proactive, formalized structure for coordination would bridge silos and reduce duplicative efforts. Employers indicated that identifying and convening the key partners needed to support recruitment and hiring is complicated and time consuming. This process might be a barrier even for companies that are committed to building an accessible workplace for autistic people. In particular, employers and other key stakeholders identified a need for ongoing employment supports to help people on the autism spectrum navigate workplace challenges when they arise in their work situations. To meaningfully impact the unemployment rate for people on the autism spectrum, national and state workforce development initiatives could establish large collaborative programs involving schools, VR services, trained job coaches, counselors, and employers.

Paid internships, career mentoring programs, and customized employment are considered by many stakeholders to be avenues to more successful, longer-term employment—and need to be scaled to support more young adults. Every listening session with key experts underscored these experiences are crucially important and consistent indicators of future job placement. Several young adult participants with previous internships shared that their experiences helped build their resumes and gave them a chance to prove their capabilities. Many participants indicated that internship opportunities led to full-time, permanent employment.

Participants highlighted some very promising programs designed to support people on the autism spectrum in finding and keeping jobs but noted that scaling these programs is challenging. Many funding mechanisms favor innovation rather than expansion of existing programs. Across the country, participants described small “pockets of excellence” of employment development and support for autistic people. Encouraging these programs to disseminate their work would support replication and enhance

reach. Given challenges with generalizability and scalability, participants suggested exploring opportunities to advance coordination with large established national programs, such as American Job Centers, Job Corps, and national Registered Apprenticeship programs, which present an opportunity to serve large numbers of individuals and increase employment nationally for young adults on the autism spectrum.

Key expert groups indicated that making inroads into these programs has been difficult. Usually, the conversations center on separate programs for autistic people, rather than increasing capacity and accessibility in mainstream programs. It might be helpful to begin by exploring and filtering outcomes data for Job Corps, for example, to compare Job Corps trainees on the autism spectrum with participants with other disabilities and neurotypical peers. This comparison might identify barriers to participation and highlight opportunities for adaptations.

Autistic young adults would likely benefit from greater and enhanced support to prepare them for employment. Funding for self-advocacy and programs that enhance interpersonal skills is very limited, yet these soft skills are an essential component of job readiness and sustained employment. Young adults indicated in the listening sessions that parents, family members, and other people with disabilities offer key encouragement in their job search. However, parents might lack education or access to resources to help them understand their child's potential to have meaningful and satisfying employment, or the variety of career paths that are possible. Key expert groups emphasized that raising expectations among VR professionals, families, and employers about the types of jobs people on the autism spectrum can do is important. Young adults on the autism spectrum have both the responsibility and the right to direct their own lives and do work that suits their interests, abilities, and sense of purpose. A young adult's field of interest and career goals should be integral to the transition plan to inform strategies for training, internships, pre-vocational experiences, and ultimately, long-term employment with opportunities for advancement.

Participants highlighted the importance for people on the autism spectrum to understand themselves—including awareness of their strengths and challenges—and cultivate self-advocacy skills to know what accommodations will work best for them in the workplace and to request these. In addition to the variety of support needs that people on the autism spectrum might have, some autistic young adults might require additional accommodations due to mental health challenges or limited speech abilities. Parents, educators, and direct service providers can support young adults to a certain extent, but this support is not a sufficient substitute for experience in an actual work environment. Gaining experience through paid internships or school-based structured volunteer experiences is crucial to help people build self-esteem and learn about professionalism, functioning as part of a team, work responsibilities, and the strategies and accommodations needed to thrive in work environments.

In addition, participants stated that young adults on the autism spectrum need training on how to highlight and market their strengths as job candidates and employees. Many programs and interventions designed for young adults on the autism spectrum primarily focus on how to secure a job but not on how to retain a job and advance on a career path. The norms and implicit rules for communication in the workplace are important.

Participants from several groups stated that employers need better access to quality training, ideally informed by people on the autism spectrum and other people with disabilities, to help them understand

and value neurodivergent people. Managers might identify certain behaviors as attitudinal challenges, when the behavior is actually related to a needed accommodation or access-related challenge. For example, a manager might perceive an individual as disinterested or disengaged when in fact the individual's support or accommodation needs are not being met. Managers can make changes to support employees on the autism spectrum (and indeed, may be legally required to, under certain circumstances). For example, when supervising employees who interpret language literally, managers can use more precise wording or provide detailed written instructions. These adjustments can address confusion and help neurodivergent employees more clearly understand expectations and job tasks.

System-wide cultural shifts, training, and process changes could potentially help ensure accessible recruitment, hiring, and work environments. Employment interventions often focus on individual-level outcomes, but for sustainability and success, several participants emphasized that employers and the broader workforce need to be fully committed to accessible recruitment, hiring, and work environments. Smaller employers in particular could reportedly benefit from funding to train human resources staff, managers, and coworkers on implementing effective policies to hire and retain neurodivergent workers. Partnering with job training entities that are run or owned by neurodivergent consultants or career coaches with disabilities would provide businesses of any size with expert insights to inform strategies for accessible practices and welcoming work environments. Additionally, stakeholders recommended highlighting work environments that value neurodivergent workers and normalize accommodations, indicating a commitment to accessibility.

Every stakeholder group highlighted lack of accessibility in the interview process, which they pointed out was created for and by neurotypical people and often creates barriers for people on the autism spectrum. Most employers use some level of automated hiring technology—tools such as resume scanners, chatbot interviewers, gamified personality tests, facial recognition, and voice analysis. This technology can screen out people on the autism spectrum who are fully qualified for the positions they are seeking. Interviewing techniques rely heavily on a candidate's ability to articulate, self-promote, process, and respond to questions quickly, and respond expressively. Offering accommodations or different communication modes for work or interviews would highlight different strengths and support many job candidates and employees—neurodivergent and neurotypical people alike. For example, some employers are using more job tests and fewer behavioral interviews to help ensure job seekers on the autism spectrum who are capable and qualified are not overlooked. Autistic young adults might benefit from coaching, mentoring, or more clear communications from employers about expectations throughout the recruitment process.

More research would be helpful to understand the population of young adults on the autism spectrum. More data are also needed on population characteristics, services, and outcomes, such as graduation rates and employment rates in different college majors and career paths among segments of neurodivergent workers. More longitudinal research on work status and role within companies, including promotions, could serve to understand how time-limited employment such as internships or contract labor might impact job retention.

The young adults with whom we spoke highlighted their desire to work and be considered equally for job opportunities. Participants across various groups supported this goal and provided important insights into

barriers and facilitators to employment. Participants also had many valuable suggestions for further research, including the following:

- Surveying employers across many different industries to understand their experiences with autistic workers or reasons they are not hiring people on the autism spectrum
- Surveying families to understand levels of awareness of services and perceptions of job possibilities
- Surveying young adults on the autism spectrum to understand what skills they think are necessary to enter the workforce and comparing these to desired workforce skills from the employers' perspective
- Collecting more longitudinal data on employment outcomes, including job satisfaction.

Such research could help stakeholders understand gaps in supports and barriers to employment, as well as opportunities to help young adults on the autism spectrum remain at work and advance in their careers.

Mathematica Inc.

Princeton, NJ • Ann Arbor, MI • Cambridge, MA
Chicago, IL • Oakland, CA • Seattle, WA
Tucson, AZ • Woodlawn, MD • Washington, DC

EDI Global, a Mathematica Company

Operating in Tanzania, Uganda, Kenya, and the United Kingdom

Mathematica, Progress Together, and the “spotlight M” logo are registered trademarks of Mathematica Inc.

