

National Autism Indicators Report:

Vocational Rehabilitation

2016







A.J. DREXEL AUTISM INSTITUTE, DREXEL UNIVERSITY

Mission

The A.J. Drexel Autism Institute is the first research organization built around a public health science approach to understanding and addressing the challenges of autism spectrum disorders (ASDs) across the lifespan.

The Autism Institute's Life Course Outcomes Research Program (LCO) envisions a future where people on the autism spectrum are valued as contributing members of our communities who have roles to play and dreams to pursue. The LCO Research Program is building a base of knowledge about the things other than clinical interventions that promote positive outcomes for people on the autism spectrum and their families and communities.

For more information about us, please visit our website: http://drexel.edu/AutismOutcomes

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National Autism Indicators Report

Vocational Rehabilitation

2016

A publication of A.J. Drexel Autism Institute's Life Course Outcomes Research Program, Drexel University

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Letter from the Program Director

Paul T. Shattuck, PhD

Reporting on Vocational Rehabilitation

Having a job is about more than simply earning a paycheck. It is an anchor for one's identity and influences quality of life, independence, and wellness. Securing a job after high school is an important rite of passage. The importance of this milestone is reflected in how much emphasis special education law places on employment during transition planning.

In addition to special education, the U.S. Vocational Rehabilitation (VR) system provides services to assist people with disabilities to prepare for, find, and keep employment.

Our 2015 National Autism Indicators Report established baseline information about the outcomes of transition-age youth with autism between high school and the early 20s across many areas of life. Continuing our tradition of reporting national-level indicators, our 2016 report focuses exclusively on the use of VR services to support employment while also broadening the age range of adults we describe.

Historically, employment outcomes for adults with autism are poor, and the return on public investment in services like special education and vocational rehabilitation is difficult to measure. Despite billions spent annually, we still don't have a strong evidence-base about how to improve outcomes.

VR data allows us to examine some outcomes for those with autism compared to their peers. For example, this data allows us to answer the question: "Do people with autism exit VR with a job?" However, there are many key questions we are NOT able to answer using the available data. Fundamentally, we need to know: How well do VR services work for those on the spectrum? Are people fully employed or under-employed? Are the jobs sustainable and stable?

At the Life Course Outcomes Research Program, we are building a base of knowledge about what promotes positive outcomes for people on the autism spectrum and their families and communities. New federal policy is attempting to improve outcomes for those with autism and other developmental disabilities, but we need to ensure these indicators are monitored, periodically updated, and used to inform improvement. Our 2016 report takes a critical first step in this direction.



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the National Autism Indicators Report series, we use "people on the autism spectrum", "people with autism", and "people with an autism spectrum disorder" interchangeably. We also use "autistic," as

some self-advocates tell us they prefer identity-first language.

Executive Summary

National Autism Indicators Report: Vocational Rehabilitation - 2016

Where we stand today

An increasing number of people with autism are applying to Vocational Rehabilitation (VR) for services they need to get and keep a job. Some of these people will receive services; others exit the system for a number of other reasons. Overall, this report finds that while 60% of people with autism are employed when they exit VR, overall employment rates, wages, hours worked, and variation in types of jobs are low. Most adults with autism who received vocational supports through the public VR system earned wages that placed them below the federal poverty line.

The charge

Vocational Rehabilitation (VR) is the largest source of public assistance for people with disabilities who seek employment, and people with autism are a growing segment of VR service users. This edition of our National Autism Indicators Report series provides an almanac of indicators detailing what we know about VR service experiences and employment outcomes for adults with autism.

This compilation of available indicators represents a critical step forward in expanding the conversation about what we know, and what we need to know, to improve quality of life for adults on the autism spectrum. It is part of our ongoing effort to use national data to describe the kinds of help people need versus the kinds of help people get coupled with data about related life course outcomes.

Aims of this report

- Characterize the overall group of people with autism who used VR services
- Describe what we know about how people with autism used VR services
- Present indicators of employment outcomes for people with autism who used VR services.
- Compare services and outcomes of people with autism to people with other types of disabilities
- Detail differences in services and outcomes for people with autism across states

Historical context

VR is a federal and state-funded program administered by states to help people with disabilities prepare for and engage in gainful employment in the U.S. The history of the VR program reaches back to rehabilitation for disabled World War I veterans. Over the past several decades, there has been a wave of new ideas and legislation about employment and disability, most notably:

- The Rehabilitation Act of 1973 (commonly referred to as "the Rehab Act") is frequently cited as the legal basis for today's VR system and has been further refined in subsequent amendments, most recently in the 2014 Workforce Innovation and Opportunity Act. Passage of the Rehab Act began a critical shift in vocational services for people with developmental and intellectual disabilities through its emphasis on services and individualized plans for employment.
- Employment First, a national movement that promotes
 integrated employment as the primary and preferred outcome
 for people with developmental disabilities, has quickly
 become the "law of the land" in employment philosophy
 with the weight of the U.S. Department of Labor behind it.
 This philosophy establishes that the default setting of services
 should be a presumption of ability.

Vocational Rehabilitation Services

Vocational Rehabilitation (VR) is the largest funder of employment and training services for transition-age youth and adults with disabilities in the US including those with autism. VR is paid for using a combination of federal and state funds, and is administered by state and territorial VR programs. The Rehabilitation Act authorizes federal grants to state VR agencies to implement vocational services.

Who:



The Rehabilitation Act (as amended) says that people are eligible for VR services if they:

- Are an individual with a disability with a significant physical or mental impairment which results in substantial problems with employment; and who can benefit from VR services to achieve employment.
- 2. Require VR services to prepare for, find, keep, or regain employment.

What:

VR agencies provide a variety of services, including but not limited to job placement, training and counseling aimed at supporting people to get and keep a job.



When:

Each state sets an age at which VR services may begin. Many high school students receive services while they're still in school.



Why:

Individuals with disabilities, particularly those with autism, may need support to find and maintain a job.



How:

Step I:

An individual or their legal guardian applies for VR services and may meet with a counselor to determine eligibility.

Step 2:

If eligible, an individual plan for employment (IPE) is created to specify what types of services are needed and for how long.

Step 3:

Access approved services to support exploring, finding, and keeping a job. Maintain the job for at least 90 days.

Step 4:

Terminate services.

Can re-apply or re-initiate services later if needed.

More about VR:

- VR serves about a half million people with disabilities nationwide every year.
- A person may be eligible for VR but not receive services. If states don't have enough funds to serve all those who are eligible, the state develops a plan for prioritizing those with the highest level of employment needs.
- Vocational Rehabilitation was most recently reauthorized in 2014 under the Workforce Innovation and Opportunity Act (WIOA).
- VR is housed in the U.S. Department of Education's Rehabilitation Services Administration.

VR data for this report

Here are some things you should know about VR data before reading this report. More background about the data is available in the **Methods** chapter.

- Data for this report came from the U.S. Department of Education's Rehabilitation Service Administration Case Service Report (RSA-911) 2014 dataset which included all individuals who applied for VR services and had a case that closed in federal fiscal year (FFY) 2014 - October 1, 2013 through September 30, 2014.
- This report focuses on those who had autism recorded as the primary or secondary cause of their work impairment.
- Analyses were limited to those who lived in the 50 U.S. states or Washington D.C.
- RSA-911 data tallies all individuals who used VR. It is not a
 nationally representative sample of all people on the autism
 spectrum.
- Findings describe individuals who used VR services.
 We cannot make inferences to the general population of individuals on the autism spectrum.

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 Elliott, T. and Leung, P., 2004. Vocational Rehabilitation: History and Practice. Accessed at http://people.cehd.tamu. edu/~telliott/documents/VocationalRehab%20chapter.pdf

Key Findings

National Autism Indicators Report: Vocational Rehabilitation – 2016

We used administrative data from the Rehabilitation Services Administration to study the services experiences and employment outcomes of people with autism who interacted with the Vocational Rehabilitation (VR) system and had a case that closed in federal fiscal year (FFY) 2014 - October 1, 2013 through September 30, 2014. We summarize key issues below and present top-level findings from our analyses. Detailed information about each of these key findings is in the chapters that follow.

Autism and vocational rehabilitation by the numbers



VR applicants found eligible are individuals who were found eligible for VR services and whose cases closed in FFY 2014.

VR service users are those who received VR services after being found eligible. Not all eligible applicants receive services for varying reasons.

Employed at exit refers to individuals who had a job for at least 90 days at the time that their VR case was closed

Adapted from: Nye-Lengerman, K.M. (2015). Predicting Vocational Rehabilitation Employment Outcomes for Individuals with Autism Spectrum Disorder. (Doctoral dissertation). Retrieved from ProQuest. (3733258)

Use of VR Services

The majority of individuals with autism have some difficulty finding and keeping a job - even among those who have higher cognitive skills. VR is the largest funder of employment services in the United States for people with intellectual and developmental disabilities. VR pays for individualized services that are necessary to prepare for, get, regain or keep employment. These services are for working age Americans who qualify for vocational help and training based on a significant disability that affects their ability to get and keep a job.

Our key findings:

- Two-thirds (68%) of eligible VR applicants with autism received services.
- Of those who received services, 46% were secondary students at the time of application for VR services.
- Most services were provided by community rehabilitation programs under contract with VR.
- Assessment was the most common service used by those with autism.
- The average amount spent per person for on-the-job supports (supported employment) was \$4,523, making it the most costly type of service.

Key Findings (continued)

VR Outcomes

The VR system gathers data on outcomes nationwide. Key indicators describe whether people find employment and whether that employment requires supports or not. Other important aspects of employment include the types of jobs people work, hours, and wages.

Our key findings:

- **60% of people with autism who used VR services left VR with employment.** VR defines employment as holding a job (with or without supports) in an integrated workplace for at least 90 days.
- The 60% employment rate does not mean the remaining 40% could not find work. Of the 40% who were not counted as employed at the time they exited VR, the most common reasons were refusal of further services or inability to contact or locate the person. We do not know whether these people found work.
- About one-third of those who became employed were in supported employment at the time of VR exit.
 They received on-the-job supports to obtain and maintain employment for at least 90 days before exiting VR services. We do not know how many were able to secure continuing supports after VR services ended.
- Overall, 80% of those who got a job were employed part-time with median weekly earnings of \$160. Earnings were slightly higher for those who were employed without supports and lower for those in supported employment.
- The most common job type was office and administrative support. About one in four people worked in an
 office job.

Disability group comparisons

We compared VR service users with autism to those with intellectual disability (ID) (who had no record of autism) and to those with any other type of disability other than autism or ID. Using VR data, we cannot tell what percentage of those with autism also had an ID.

Our key findings:

- Individuals on the autism spectrum who received VR services comprised 3% of all VR service users, while those with ID made up 9% of VR service users.
- VR service users with autism were more likely to be male, White, and younger, compared to their peers with ID or other types of disabilities.
- Approximately two-thirds of autism applicants deemed eligible received VR services the same rate as those with ID.
- Average expenditures on total services per person were nearly 20% higher for those with autism compared to those with ID.
- The employment rates following VR services were comparable for those with autism (60%), intellectual disability (55%), and other disabilities (56%). A lower percentage with autism had supported employment compared to those with ID.
- The rate of working part-time was the same for those with autism and those with ID nearly 90%. Median wages were also the same approximately \$160 per week.
- Those with autism were more likely to work in office jobs compared to their peers who received VR services. Working in food service or cleaning jobs was less likely compared to those with ID.

Key Findings (continued)

State comparisons

Where you live matters. Nearly every state has some type of policy, legislation, or activities focused on improving employment outcomes for people with disabilities, but these vary widely across states along with other state demographic and economic factors.

Our key findings:

- Services experiences and employment outcomes varied widely across states including receipt of VR services, expenditures on services, and employment rate following VR services. Hours worked and median weekly earnings did not vary as widely across states, but differences were still evident.
- Some states did not report data for some indicators, or reported numbers that were highly different from other states - such as reporting that no transition-age youth in the state received services, or no one received on-the-job supports. We were unable to discover the reasons behind highly unusual state indicator values.

Overview of this report

The chapters ahead use the most recent indicators we have to describe what we know about people with autism who interacted with the VR system, their services use, and the outcomes of these services. Most chapters focus on national-level data for VR service users with autism. However, the final chapters describe how those with autism compared to their peers with other types of disabilities who used VR services, and detail state-level comparisons. This report is an important first step toward addressing the gaps in what we know, as we work to achieve better employment outcomes for adults with autism.

Background

The issues

Autism in the workplace

Autism spectrum disorder (ASD) is a lifelong neurodevelopmental condition that affects social communication and social interaction, and features restricted and repetitive behaviors, interests and activities, with differing degrees of severity. Some adults with autism are unable to speak. Others may be easily overwhelmed by noises and touch or have self-injurious behaviors. The expression of autism characteristics, intellectual functioning, and patterns of strengths and challenges differs widely across individuals. As a result, support needs vary greatly and continually change as individuals age.

The vulnerabilities that young adults with autism face can make it difficult to find and maintain a job or to plan for a career. Four of every 10 youth with autism do not transition into a job in the first years after high school.² Yet, some are able to find work, even though their impairment levels are high.³

Growing need for employment services

The number of adults with autism who are turning to Vocational Rehabilitation (VR) for help has been steadily increasing as the growing population of youth diagnosed with autism ages into adulthood.

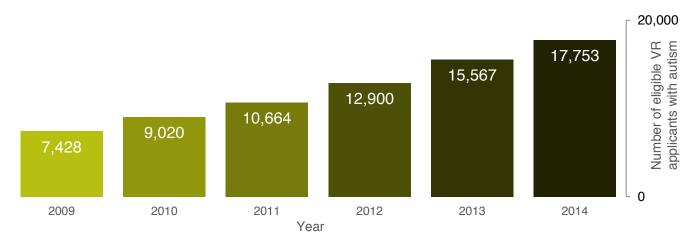
Many people with autism experience a dramatic decline in access to supports and services after completing high school. However, their need for help does not go away in adulthood and many will have great difficulty finding and keeping employment.⁴

Changes in services during the transition into adulthood

During high school, all youth with a disability are entitled to receive services through special education. The Individuals with Disabilities Education Act (IDEA) mandates that each special education student age 16 or older has a transition plan that specifies goals and services to support getting a job, continuing education, and/or living independently. If a student plans to get a job after graduation, services might include vocational education, career counseling, life skills and transportation training, or other services the special education team deems necessary.

There is no entitlement for services in adulthood. Following high school, youth and their families who need help must apply for services from a wide variety of adult-serving public systems. Eligibility for many special supports in adulthood requires having an intellectual disability. However, the majority of today's youth with autism do not have co-occurring intellectual disability, although their communication and social impairments may significantly interfere with their ability to get a job, go to school, and socialize.

The number of individuals with autism applying to VR for support has increased steadily.



Source: Rehabilitation Services Administration (RSA-911), FFY 2009-2014

Vocational Rehabilitation (VR)

VR is the largest public funder of employment services in the United States for people with disabilities including autism. The VR system is administered by each state using a combination of federal and state funds. VR addresses a diverse array of employment support needs using a mix of VR agency staff (public employees) and contracted community rehabilitation programs (both non-profit and for-profit).

What is the purpose of VR?

According to the Rehabilitation Act, VR is tasked with helping individuals with disabilities prepare for and engage in gainful employment based on consideration of people's strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice (34 CFR § 361.48).

VR services can provide a bridge into the world of work as students prepare to exit school and enter adulthood. Yet, the VR system is not only for youth; it also provides services for working age adults. Historically, involvement of VR during the special education transition process has been infrequent. Recent changes to federal law shift funds toward transition-age services, with the thought that starting VR services earlier will lead to better outcomes. However, the impact of that funding shift remains to be seen.

Challenges to the VR system in serving people with autism

Autism as an underserved group in VR

There is some evidence that people with autism are underserved through VR.⁷ Some report that people with autism are more likely to be denied services because of the severity of their disability.⁸ State VR reports also call out autism as an underserved group. Connecticut, for example, identified VR users with autism as an underserved group in its 2013 Comprehensive Statewide Needs Assessment of its VR services.⁹

Vocational services and autism: State of the science

The VR system has the potential to positively impact a wide range of employment outcomes (e.g., employment rate, hours worked, wages, etc.) for people with autism across the nation. However, the evidence base about which vocational services work best for those on the autism spectrum remains in an emerging state, ¹⁰⁻¹¹ and often does not include stories or insights from those who actually use the VR system. We know that job placement and on-the-job supports are particularly critical VR services for fostering positive employment outcomes for

individuals with autism. ¹²⁻¹⁵ To learn more about what employment outcomes mean, read the VR Basics chapter.

VR services are funded with taxpayer dollars, so understanding the financial and social return on this investment is critical – especially given the increasing number of VR applicants with autism. Despite investment of public funding, workers with autism who received VR services continued to be underemployed working fewer hours at lower wages than those with other disabilities.^{7, 16}

Considerations about VR data

There are several considerations to be aware of when interpreting the information presented in this report.

This is administrative data.

Many national sources of information we have about autism come from surveys in which the individual or a person close to the individual answers questions. However, the VR data used in this report is administrative data, meaning it was entered by VR agency staff - not completed by individuals with autism themselves.

Because VR data for the RSA-911 is routinely entered by VR agency staff, the rate of missing data is low. Some of the information is checked against other sources (such as information on social security benefits). Other data requires staff to make choices when entering data, such as deciding what to list as the cause of someone's work impairment when there are multiple possible causes.

There is uncertainty surrounding autism classification.

The procedure for determining or verifying a specific disability is not consistent across people or agencies, though it is usually based on medical or educational records. It is likely that those classified with autism actually do have autism. However, it is possible that there are some people with autism getting services who get classified under a different cause of their disability.

Important indicators are not available in VR data.

There are a number of demographic variables that are not collected by VR at the time of application, such as household income and whether the person had a source of transportation. We have no standardized information about functional limitations of individuals or the severity of their impairments, other than knowing they have a significant disability that qualified them for VR services. We do not know the intensity with which individuals received VR services. We also have limited information about those who apply for VR and then exit before receiving services, making it hard to determine how this group differs from those who do receive services.

Understanding outcomes for groups

In each chapter we present main outcomes, such as whether VR users exited with employment. These main outcomes are then broken down by race, student status, type of medical insurance, and age.

The race variable in this report categorized individuals as either White, Black, other, or more than one race. Hispanic ethnicity was considered separately from race. In this report the "other" group includes those who were Asian/Pacific Islander, American Indian/ Alaska Native, other, and multiple races.

The **Disability Group Comparisons** chapter compares outcomes across disability groups to help locate how those with autism are faring compared to people with other types of disabilities. The comparison group in this report was those with intellectual disability (referred to as mental retardation in the RSA-911 dataset). We also looked at outcomes for all other VR users who had any type of disability other than autism or intellectual disability. Finally, in the **State Comparisons** chapter we present state-level outcomes for employment rate, services use, costs, and other outcomes.

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VR Basics

Understanding VR process, terminology, and history

Vocational Rehabilitation (VR) sometimes feels like it has its own language. This chapter contains definitions and explanations about Vocational Rehabilitation. All information is based on legislation, federal regulations, and user manuals that come with the VR data. First, we will provide some background about how VR is supposed to work from the time of application to exit - with the understanding that there are state-to-state differences and that things don't always go according to plan. Then we will break down terminology and concepts related to employment in the next section. Last, we provide an overview of VR history and related legislation.

What is the process for receiving VR services?

Who can receive VR services?

All individuals with disabilities are eligible for VR services. Specifically, this includes a person:

- 1) who has a physical or mental impairment;
- whose impairment substantially interferes with the ability to get a job;
- 3) and whose impairment requires VR services to prepare for, secure, retain, or regain employment;
- 4) and intends to achieve an employment outcome.

Completion of the application process serves as evidence of this intention.

The federal Rehabilitation Act specifies that VR should operate with the presumption that the person can achieve an employment outcome through VR services. If it is decided that a person cannot benefit from VR services, there must be clear and convincing evidence as to why. Additionally, a person who is eligible for Social Security Income (SSI) benefits is also automatically presumed eligible for VR services.¹

In regard to VR services for transition-age youth, the Rehabilitation Services Administration clarified that since all individuals with disabilities are eligible for VR services, "...all students with disabilities, including those with significant and the most significant disabilities, are presumed to be eligible for VR services, unless the VR agency concludes, based on clear and convincing evidence, that the individual cannot benefit from the VR program through the achievement of an employment outcome (i.e., integrated employment) because he or she is too severely disabled."²

Who refers people for VR services?

Referrals may be made by the individual or representative in person, or by phone, paper, email, or other method. Others can also refer, including but not limited to: schools, community rehabilitation programs, employers, friends, and service providers. VR agencies must have a process in place to ensure that individuals expressing interest in VR services are able to access the program and apply for services in a timely manner. Proceedings of the individual of the program and apply for services in a timely manner.

How does a person apply for VR services?

The VR application process may vary from state to state, but the basic requirements are as follows:

The individual or their representative must:

- 1. complete and sign a VR agency application form;
- OR complete a common intake application form in a One-Stop center requesting vocational rehabilitation services, or otherwise request services;
- 3. provide the information necessary to initiate an assessment to determine eligibility and priority for services; and
- 4. be available to complete the assessment process.⁴

Applicants may not be discriminated against based on type of disability, source of referral, service needs or anticipated cost of these services.¹

How is eligibility for VR services determined?

A VR counselor determines whether people meet the eligibility criteria above, based on a review of existing records which include: the VR counselor's observations, education records, information provided by the individual or the individual's family, particularly information used by education officials, and determinations made by officials of other agencies.

If there are still questions about the person's functioning level, additional data is collected through trial work experiences, assistive technology devices and services, personal assistance services, and any other support services that are necessary to determine whether an individual is eligible. States may also provide for additional assessment and diagnostic services, such as sending an applicant to a specialist.

If a person is found ineligible for services, a review should be conducted within 12 months unless the person refuses the review, the person has moved out of the state, or the person cannot be located.⁵

How are decisions made about services?

If a person is deemed eligible for VR services, the next step is to create an Individualized Plan for Employment (IPE) with the VR counselor. The IPE must also include the types of services required by the individual, the duration of services, who will provide the services, and criteria for how progress will be evaluated.⁶

The IPE specifies an intended employment outcome for a person - meaning whether the goal is for the person to work in full-time or part-time competitive or supported employment, or another setting such as self-employment. If appropriate, the IPE outlines how supported employment will be provided and whether postemployment services will be provided. VR services cannot be delivered until the IPE is written and all parties approve it, including the person with autism or a legal guardian.6

For transition-age students, the IPE also states how VR services will be coordinated with the goal and services in the student's Individualized Education Program for special education.8

People who are using VR services check in with the VR counselor periodically to review the IPE. Once the specified duration of services is complete, or if an individual no longer needs help, services are terminated. The individual may be eligible for certain postemployment services if specified in the IPE.6

Do VR users pay for services?

Some states provide VR services at no charge to people who use the services, while others may require a contribution based on financial means testing.9 Each state must have a written policy detailing how financial means are tested and how costs are shared with participants. However, states are not allowed to charge participants for: assessment services, vocational rehabilitation counseling and guidance, referral and other services, job-related services, or personal assistance services.

The Vocational Rehabilitation Services Process

step

Application

- Contact local VR Services office.
- Meet with counselor.
- Complete eligibility determination.



step 2

Planning and Preparation

- Determine strengths, interests, capabilities, accommodations and support needs, and local job market opportunities.
- Determine types and duration of needed services.
- Create an Individualized Plan for Employment (IPE) with the counselor.
- Complete training and secure necessary licenses or permits required for work.



step

Employment

- Engage in job-related services which might include job search support (usually with help from a community rehabilitation provider agency).
- Check in with counselor to ensure IPE is being followed.



step

Termination of services

- Services last until employment is achieved, or as defined by the IPE, as long as person is actively participating.
- Services may be terminated after 90 days of employment.
- Follow up services may be provided for an additional 90 days, if specified on the IPE.



Note: These steps may be completed by the person who requires services or by their legal guardian.

Important VR terms and concepts

Who is an individual with a disability?

An individual with a disability is someone who:

- 1. has a physical, mental, cognitive, or sensory impairment that substantially limits one or more of the individual's major life activities:
- 2. has a record of such an impairment; or
- 3. is regarded as having such an impairment. 10

Who is an individual with a significant disability?

According to VR,11 an individual with a significant disability is someone who:

- 1. has a physical or mental impairment that seriously limits one or more functional capacities (such as mobility, communication, selfcare, self-direction, interpersonal skills, work tolerance, or work skills) in terms of an employment outcome;
- 2. can be expected to require multiple VR services over an extended period of time;
- 3. has one or more physical or mental disabilities resulting from amputation, arthritis, autism, blindness, burn injury, cancer, cerebral palsy, etc.

Individuals are classified as having:

- No significant disability
- Significant disability, or
- Most significant disability*

*A person with a "most significant disability" meets the above criteria and has additional functional limitations as defined by the VR agency. In states that do not have funding to serve all those who are eligible for VR services, an Order of Selection is used to prioritize services for those with the most significant disabilities.

What is an Order of Selection?

Each state must have a plan in place for administering and supervising VR services and must specify how it will prioritize which individuals it serves (if all cannot be served with state funding). If a state cannot afford to serve everyone who qualifies for VR, they must determine an order of selection - a plan for how they will serve those with the highest level of employment needs first.

What is an employment outcome?

The Rehabilitation Services Act defines what an employment outcome is in the eyes of the VR program. A person's IPE states the intended employment outcome. All work must occur in an integrated work setting but may be:12

- Without employment supports (competitive), with employment supports (supported employment), or as some other form of employment (including self-employment)
- Full-time, or part-time

When a person exits VR, the VR counselor must report the employment outcome. A person is counted as employed if he or she holds a job for 90 days in integrated setting. The federal government does not count segregated work (facility-based employment, sometimes called "sheltered work," that only employs people with disabilities, often at sub-minimum wage) as successful employment. Those who do not become employed are counted as exiting VR without employment.

The primary successful outcomes categories for people with autism who receive VR services are:

- Employment without Supports in an Integrated Setting. This is full-time or part-time employment in an integrated setting without ongoing support services. This is work performed for wages, salary, commissions, tips, or piece-rates, below, at, or above the minimum wage. Does not include self-employed individuals.
- Employment with Supports in an Integrated Setting. This is full-time or part-time employment in an integrated setting with on-the-job (supported employment) services for individuals with significant disabilities (See below, What is supported employment?). Compensation for such employment may be below, at, or above the minimum wage.

Source: Adapted from the RSA-911 Case Service Report 2014

It is no accident that VR has rules about what it counts as an employment outcome. The strict definitions are used to discourage the practice of routinely placing people with significant disabilities into non-integrated (sheltered) settings with the presumption that employment is not possible. ¹²

What is an integrated setting?

An integrated setting means a setting typically found in the community in which applicants or eligible individuals interact with non-disabled individuals in addition to the non-disabled individuals who are providing services to those applicants or eligible individuals. An integrated work setting provides disabled people with the same level of opportunities for interaction with coworkers without disabilities as any non-disabled person would have. The idea of integrated settings applies to both services and employment outcomes. ¹³

What is competitive employment?

Competitive employment means work:

- 1. in the competitive labor market that is performed on a full-time or part-time basis in an integrated setting; and
- with pay at or above the minimum wage, but not less than the customary wage and level of benefits paid by the employer for the same or similar work performed by individuals who are not disabled.¹⁴

What is supported employment?

Workers with the most significant levels of disability may require **supported employment services** to maintain a job in a competitive, integrated work setting. When people require these services, they are referred to as working in **supported employment**. Pay for supported employment may be below the minimum wage.

Supported employment services are provided by a state VR agency or a community rehabilitation provider and funded through a state VR agency. They can be provided for up to 18 months (or longer if a waiver is written into the Individualized Plan for Employment). Once a person has been in supported employment for this long and maintains stability in their job, they exit VR. After VR exit, supported employment services are no longer provided by VR.

However, a person could transition into **extended services** after VR exit. Extended services are ongoing support needed to maintain supported employment. These services are provided by a state or private agency **using non-VR funds.**¹⁶ Other agencies may provide extended services, such as the state office of mental health or developmental disabilities, or nonprofit organizations. Additionally, a person could reapply to VR if needed.

With the passage of the Workforce Innovation and Opportunity Act, states are now required to set aside at least half of their supported employment funds to serve youth with the most significant disabilities (separate from the 15% that states must allot to serve transition-age youth in VR services). While supported employment services are generally limited to a period of 18 months, the law also allows these funds to be used for extended supported employment for youth for up to four years. ¹⁶

VR history and related legislation: Toward stronger employment policy

There are a range of federal policies and programs that support employment for people with disabilities.

The **Rehabilitation Act of 1973** (commonly referred to as "the Rehab Act"), is frequently cited as the legal basis for today's Vocational Rehabilitation system. Passage of the Rehab Act began a critical shift in vocational services for people with developmental and intellectual disabilities through its emphasis on services and individualized plans for employment.

Other legislation following the Rehab Act was influential in supporting civil rights, opportunities, and planning for employment for those with disabilities. Passage of the **Americans with Disabilities Act (1990)** expanded equal opportunities, accommodations, and protections for people with developmental disabilities in the workplace; and a 1990 revision of the **Individuals with Disabilities in Education Act** included focus on transition planning - enhancing the connection between school and work.

Employment First has quickly becoming the "law of the land" in employment philosophy with the weight of the U.S. Department of Labor behind it. Employment First is a national movement that promotes integrated employment as the primary and preferred outcome for people with developmental disabilities by creating a "framework for systems change that is centered on the premise that all citizens, including individuals with significant disabilities, are capable of full participation in integrated employment and community life." Although there is no single definition of Employment First or standard way for states to implement it, this framework generally uses supported and customized employment as strategies to increase participation in community-based workplaces alongside people without disabilities with pay at or above minimum-wage.

A recent wave of legislative action has taken even stronger aim at moving the needle on employment for individuals with disabilities. In 2010, President Obama issued an executive order to increase hiring of persons with disabilities by federal agencies.¹⁸ Then, in 2014, Congress passed the Workforce Innovation and Opportunity Act (WIOA), which reauthorized the Workforce Investment Act and made several substantial changes to the Rehabilitation Act, which governs VR services. 19 Legislative activities like WIOA directly support the goals of Employment First and seek to further shift employment outcomes for people with disabilities in the U.S. including those with autism. States are now submitting plans for how WIOA will be implemented in their state.

One substantial change in WIOA is the increased focus on delivering VR services to transition-age youth. States now must allot 15% of VR funding to pre-employment training aimed at successfully transitioning students into postsecondary employment or education. WIOA also designates additional funds to assist students with the most significant disabilities and encourages employers to provide more opportunities for internships and apprenticeships. The reauthorization reaffirms competitive, integrated employment as the desired outcome of VR services; adds to the core set of employment outcome measures; and shifts the focus of employment to building career pathways that match the labor needs of states and regions.

What is the CFR?

Each federal law, including the Rehabilitation Act, has a Code of Federal Regulations (CFR). The CFR provides the specific guidelines for how the law is to be implemented, definitions of terms, and who is responsible for doing what. If you would like to read a section of the code, you can search online using the CFR number.

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What do we know about VR service use and outcomes for those with autism?



Photo credit: SARRC, Stephen G. Dreiseszun/Viewpoint Photographers

Characteristics of VR Service Users with Autism



Photo credit: Community Integrated Services

People of all races, ethnicities, income levels and geographic regions are diagnosed with autism. While all have challenges that affect their daily functioning, the severity of those challenges is very different across individuals. As a result, the types of help people may need to get and keep a job also vary. This chapter describes the characteristics of VR service users with autism.

A total of 17,753 individuals with autism had a case that closed in federal fiscal year (FFY) 2014. This group of people with autism equaled 3.2% of all VR cases that closed in FFY 2014. Approximately two-thirds of this autism group - a total of 12,137 individuals - received VR services before their cases closed. In this chapter, we focus on the characteristics of this group of individuals with autism who received VR services after an Individualized Plan for Employment was in place.

For more information on how we defined which individuals with autism we included in our analyses, see the **Methods** appendix. To find out more about the type of services and experiences people had within the VR system, see the **Services** chapter.

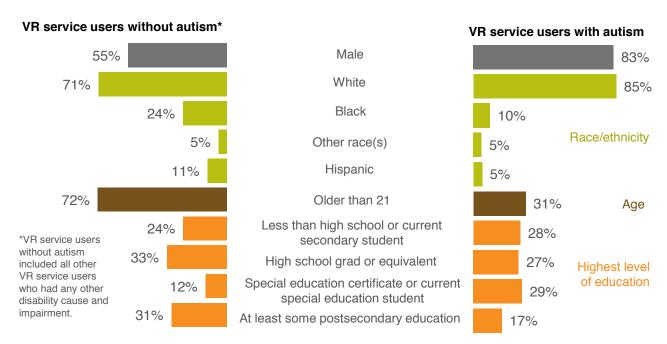
Demographic characteristics

When we use the term *VR service users*, we are referring to people who use VR services and who have autism as the primary or seondary cause of their disability.

VR service users with autism averaged 22 years of age at the time of application (range 12-69 years). Most were male and white. Nearly half (46%) were high school students at the time of application, and almost all (94%) of these high school students were receiving special education services through an Individualized Education Program (IEP) or accommodations via a 504 plan.

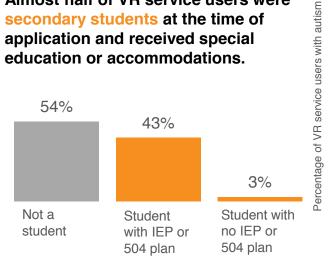
Compared to VR service users without autism, those who had autism were more often male, white, and age 21 or younger. Those with autism were less likely to have any postsecondary education.

More VR service users with autism were male and younger compared to those without autism, and fewer had some postsecondary education.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Almost half of VR service users were secondary students at the time of application and received special education or accommodations.

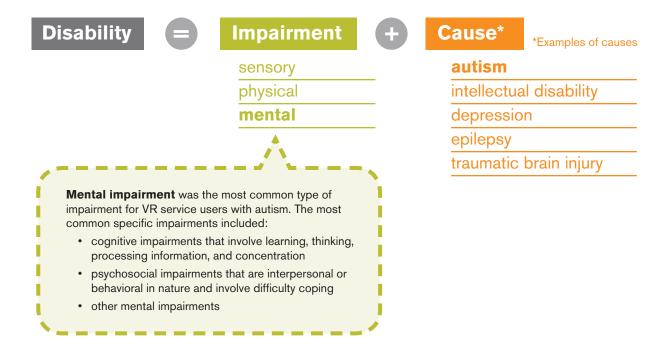


Source: Rehabilitation Services Administration (RSA-911), FFY 2014

An Individualized Education Program (IEP) is an individualized special education plan for students with a disability that specifies goals and services needed to help the child learn and perform in school as specified under the Individuals with Disabilities in Education Act (IDEA). A **504 plan** is a written plan for accommodations and supports for students with a medical disability, typically used for students who don't require special education, as specified under the Rehabilitation Act of 1973.

Understanding how disabilities are classified in VR

VR counselors assign two codes for the type of disability a person has—an **impairment** (reason that employment is difficult) and a **cause** (the underlying condition that causes the impairment).

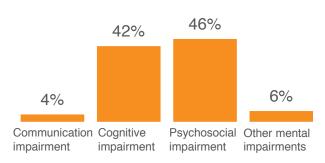


Adapted from: Nye-Lengerman, K.M. (2015). *Predicting Vocational Rehabilitation Employment Outcomes for Individuals with Autism Spectrum Disorder.* (Doctoral dissertation). Retrieved from ProQuest. (3733258)

Impairment characteristics

All of the VR service users included in this report had autism as their primary or secondary disability. This means that the VR counselor considered autism to be the main impairment that caused or resulted in significant difficulty getting or keeping a job. Autism typically falls in the mental impairment category, which can be broken down further into cognitive, psychosocial, or other subsets of mental impairment. Most VR services users with autism had primary mental impairments in cognitive and psychosocial skills.

Cognitive and psychosocial impairments were the most common sources of job impediments.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

At a glance: What was happening at the time of application for VR services?

Social Security Income (SSI)

is a cash benefit provided to people who are both disabled and have a low income level. The Social Security Administration handles SSI benefits.

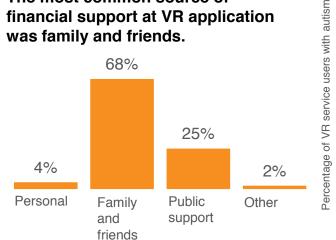
Approximately one in 10 individuals had a job at the time of application for VR services. The vast majority lived at home in a private residence. Nearly 70% were receiving financial support from family and friends. Nearly 40% were receiving Supplemental Security Income (SSI) for disabled, low-income individuals at an average of \$573/month, or Social Security Disability Insurance (SSDI) at an average of \$675/ month, or Other (unspecified) types of public benefits at an

average of \$398/month. Over one-third were privately insured, while another third used public health insurance, and onequarter were uninsured.

Most were unemployed, living at home, with both public and private financial supports.

Employment	Currently employed (II%)
Where they lived	Private residence (96%), Community homes (3%), Other settings (1%)
Insurance	Private (38%), Public (33%), Uninsured (25%), Both (5%)
Benefits	SSI (29%), SSDI (9%), Other public support (5%)

The most common source of financial support at VR application was family and friends.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Characteristics of those who did not receive services

One-third of those who applied to VR did not receive services to help them find or maintain a job. We examined characteristics of those who did not receive services to see if there were any key differences between this group and the group who did receive services.

We found no major differences (See Methods appendix for further information). The characteristics we described above were not more than a few percentage points different for those who did not receive services with one exception. Of those who did not receive services, 26% were high school students at the time of case closure, while 17% of those who did receive services were high school students.

Use of VR Services



Photo credit: Community Integrated Services

Only some applicants with autism received services.

Our key findings

- Two-thirds (68%) of eligible VR applicants with autism received services.
- Of those who received services, 46% were secondary students at the time of application for VR services.
- Most services were provided by community rehabilitation programs under contract with VR.
- Assessment was the most common service.
- The average amount spent per person for on-the-job supports (supported employment) was \$4,523, making it the most costly type of service.

VR Services matter.

The majority of individuals with autism have some difficulty finding and keeping a job. This is true even among those who have strong cognitive ability. Vocational Rehabilitation (VR) is the largest funder of employment services in the United States for people with intellectual and developmental disabilities. VR pays for individualized services that are necessary to prepare for, get, keep or regain employment. VR services are for working age Americans who qualify for vocational help and training based on a significant disability that affects their ability to get and keep a job. All services a person receives must be specified in an Individualized Plan for Employment (IPE). Read more about the process for receiving VR services, what a significant disability means, and about IPEs in the **VR Basics** chapter.

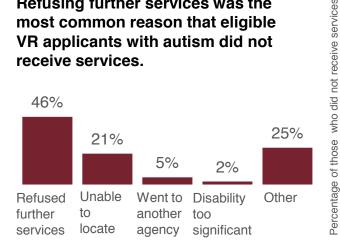
During high school, VR services for those with autism tend to focus on career exploration and preparation. During adulthood, they focus more on job search assistance, job placement, and on-the-job supports. These supports increase the chance of positive employment outcomes for individuals with autism. ²⁻⁵ Read more below about these services in **What services does VR provide?**

Only some eligible VR applicants actually received services.

An Individualized Plan for **Employment** (IPE) identifies specific employment goals, the services necessary for the achievement of the goals, the projected length of the services, and the providers of the services.

We do not have much information about what happened to people who never received VR services after they applied for them, such as whether they got a job on their own or with help from another source, or never worked. However, we do have data on why people did not receive services. Nearly half refused further services and another one-fifth were unable to be located. Others transferred to another agency, did not require VR services, or needed extended services which were not available. We do not have data about why people refused services.

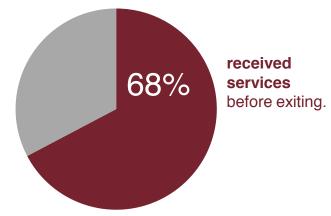
Refusing further services was the most common reason that eligible VR applicants with autism did not receive services.



Reason for leaving VR without receiving services

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Two-thirds of eligible VR applicants with autism received services through VR.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

We also know that 17% of VR services users with autism had a previous case closure with VR in the past three years. This means that nearly one in five people with autism had some type of previous experience with VR services and returned for additional help in a three year period. This is very similar to the rate of previous case closures for all other VR service users: 15% had a previous case closure with VR in the past three years. Some people may also have had additional experiences with VR earlier in their lives.

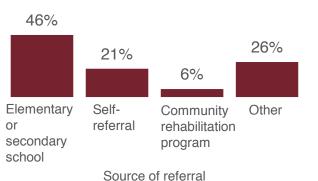
Who referred people with autism for VR services?

Nearly half of people with autism who used VR services were referred to VR by school staff. The source of referral for youth and young adults with autism varied based on student status at the time of application. As expected, students were typically referred to VR by an elementary or secondary school, compared to non-students. Self-referral was much more common in non-students as was referral from other sources. Other referral sources included medical health providers, postsecondary education institutions, service providers for people with intellectual and developmental disabilities, and other state agencies.



Photo credit: Community Integrated Services

Educational institutions were the most common source of referral to VR.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

A word about costs

We examined average expenditures per person for services those with autism commonly used. Information about the cost of VR services is only reported for services provided by community rehabilitation programs. Costs for services provided directly by VR counselors (who work for the local VR agency office) are not reported, as these services are delivered by salaried VR agency staff and not billed as fee for service. Therefore, costs reported in the table for services typically delivered by VR staff, such as VR Counseling and Guidance (*) and Information and Referral (*) services, should be interpreted with caution.

For example, of the 6,360 people with autism who received VR Counseling and Guidance services, only 80 people received this service from a community rehabilitation program. We do not know whether it would have also cost \$808.00 for VR to provide this same service directly.

Some rates for services are set by the states. Others are negotiated between the state VR agency and the community rehabilitation program it contracts with. Costs mean what was expended per person for each service across the total time a person used VR services.

What services does VR provide?

Service categories and definitions

Assessment

Assessment means services and activities used to determine an individual's eligibility for VR services, to prioritize level of employment needs, and/or to determine the nature and scope of VR services to be included in the IPE. Assessment services might include:

- Trial work experiences and extended evaluation.
- Psychological assessments
- Dental and medical exams
- Assessments of personality, interests, interpersonal skills, intelligence and related functional capacities, educational achievements, work experience, vocational aptitudes, personal and social adjustments, and employment opportunities of the individual

VR counseling and guidance

VR counseling and guidance provides information and support services to assist people in making informed choices about employment.

Job placement services

Job placement assistance is a referral to a specific job resulting in an interview, whether or not the individual obtained the job.

Job search assistance

Job search activities support and assist an individual in searching for an appropriate job. Job search assistance may include help in resume preparation, identifying appropriate job opportunities, developing interview skills, and contacting businesses.

Information and referral

Information and referrals to other agencies are provided for services that are not available through the VR program.

On-the-job supports (supported employment)

On-going support services and other appropriate services needed to support and maintain an individual with a most significant disability in supported employment for a period of time generally not to exceed 18 months. Such services, such as job coaching, are for individuals who have supported employment and long-term supports identified on their IPE. For example, an employee may need support in understanding job tasks or workplace rules, or learning how to navigate to/from work or within the workplace. 6

Job readiness training

Training provided to prepare an individual for the world of work (e.g., appropriate work behaviors, getting to work on time, appropriate dress and grooming, increasing productivity).

Diagnosis and treatment of impairments

VR services will pay for diagnosis and treatment of the listed physical and mental impairments, **if and only if** other sources of funding (i.e. grant funding) cannot be secured, and if the physical or mental impairment negatively affects ability to work. Services include, but are not limited to:

- Diagnosis and treatment for mental and emotional disorders by licensed providers
- Nursing services
- Prescription of eyeglasses and visual services
- Physical, occupational, and speech or hearing therapy
- Mental health services
- Other medical or medically related rehabilitation services

On-the-job supports, short term

Services provided to support a person in maintaining their job once he or she is employed. Such services include short-term job coaching for persons who do not have a supported employment goal in their IPE.

Source: adapted from the RSA-911 Case Service Report 2014

Top 10 services for those with autism.

Service	Percentage of VR users with autism who received service	Average amount spent per VR service user with autism	Average amount spent per VR service user without autism**
Assessment	67%	\$1352↑	\$936
VR Counseling and Guidance	e* 56%	\$808↓	\$982
Job Placement Services	38%	\$2710↑	\$2325
Job Search Assistance	34%	\$1538↓	\$1691
Information and referral*	25%	\$144↓	\$266
On-the-job supports, supporte employment	ed 23%	\$4523↑	\$3971
Diagnosis and treatment of impairments	23%	\$742↓	\$1983
Job Readiness training	22%	\$2670↑	\$2259
Transportation	22%	\$570↓	\$731
On-the-job supports, short ter	rm 20%	\$2154↑	\$1635

Key: ↑ Costs higher for the autism group. ↓ Costs lower for the autism group.

The table above reflects the average amount spent for each service per person (with and without autism) across the years that they received VR services.

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Services and expenditures

Assessment was the most commonly used service.

Nearly 70% of VR service users with autism received assessment. Assessment is used to determine job support needs and to prioritize intensity of these needs. More than half received VR counseling and guidance. Job placement services and job search assistance were also common, with slightly over one-third receiving each of these.

^{*}Costs reported for VR Counseling and Guidance (*) and Information and Referral (*) services should be interpreted with caution. These services are typically delivered by VR staff and are not billable feefor-service activities. See **A Word About Costs** above.

^{**}VR service users without autism included all other VR service users who had any other disability cause and impairment.

Amounts spent on services for people with autism were often higher.

VR service users without autism

included all other VR service users who had any other disability cause and impairment. Average expenditures for six of the 10 top services were higher for VR service users with autism compared to costs for those without autism. More comparisons of services expenditures can be found in the **Disability Group Comparison** chapter.

On average, VR service users with autism received a total of four services. When examining specific services, on-the-job supports (supported employment) had the highest expenditures per recipient at \$4523 (for cases that closed in FFY 2014), which was two to four times more costly than all other services.

On average, VR service users <u>with autism</u> received almost \$5,900 per person in services through community rehabilitation programs across all services they utilized.



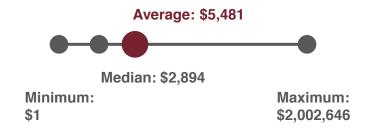
Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Contracted community rehabilitation programs delivered the bulk of VR services.

Many people work together in different capacities to deliver VR services. An extensive network of local VR offices are staffed by government employees. Relatively few VR services are actually provided by VR counselors who work in the local VR offices. Many services are contracted out to **community rehabilitation programs**, which are agencies, organizations, or institutions that provide or facilitate Vocational Rehabilitation services as their major function. These programs provide a diverse array of VR services to meet most direct employment support needs.⁷

For individuals whose cases closed in FFY 2014, VR counselors most often provided administrative tasks like counseling and guidance, and information and referral services. Community rehabilitation programs most often provided job-related support services such as job search and job placement assistance, on-the-job supports (supported employment), or job-readiness training. Sometimes services (e.g., assessment, job placement services, job search assistance, and transportation) were provided through a combination of both VR counselors and community rehabilitation programs.

On average, VR service users <u>without</u> <u>autism</u> received almost \$5,500 per person in services through community rehabilitation programs for all services they utilized.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Administrative services like VR counseling and guidance, and information and referral services were typically provided by VR counselors in the local VR office. Job-related supports were most often provided by contracted community rehabilitation programs.

Service	Received service through a local VR agency (%)	Received service through a community rehabilitation program (%)	Received service through both local VR agency and a community rehabilitation program (%)
VR Counseling and Guidance	83%	1%	16%
Information and Referral	80%	11%	8%
On-the-job supports, supported employment	3%	81%	16%
On-the-job supports, short term	2%	77%	21%
Transportation	3%	67%	29%
Job Readiness Training	12%	61%	27%
Diagnosis and treatment of impairments	5%	60%	34%
Job Search Assistance	16%	56%	27%
Assessment	21%	55%	24%
Job Placement Services	16%	53%	31%

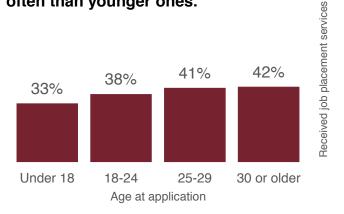
Source: Rehabilitation Services Administration (RSA-911), FFY 2014

When people with autism receive job placement services, they are more likely to exit VR with employment.^{1, 2-5} Job placement services are repeatedly found to be among the services that are the most predictive of positive employment outcomes. We focus here on the experiences of people with autism who received job placement services through VR.

Those who were older and who had private health insurance were more likely to receive job placement services.

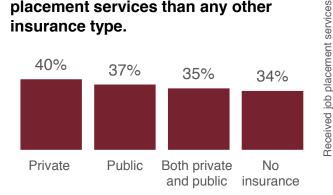
VR service users who were 25 years or older were more likely to receive job placement services than those who were below 18 years of age at the time of application for VR services. Those who had private health insurance were more likely to receive job placement services, compared to those who used public insurance, a combination of public and private insurance, and those who were uninsured. Approximately 38% of those who were White received job placement services compared to 33% of those who were Black and 33% of those who were multiple races.

Older VR service users with autism received job placement services more often than younger ones.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

More VR service users with private health insurance received job placement services than any other insurance type.



Type of health insurance

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

SPOTLIGHT: On-the-Job Supports (Supported Employment)

We focus here on the experiences of people with autism who received supported employment through VR, as it was the most costly service for those on the spectrum. Find more information about supported employment in the **VR Basics** chapter.

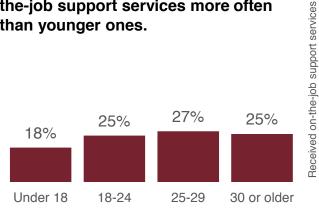
What is supported employment?

Workers with the most significant levels of disability may require supported employment services to maintain a job in a competitive, integrated work setting. When people require these services, they are referred to as working in supported employment. Pay for supported employment may be below the minimum wage. These services are provided by a state VR agency or a community rehabilitation provider and funded through a state VR agency. They can be provided for up to 18 months (or longer if a waiver is written into the Individualized Plan for Employment). After VR exit, supported employment services are no longer provided by VR. Extended supports may be available through other sources but are not paid for with VR funds.

Those who were older or publicly insured were more likely to receive supported employment services.

Those who were 25 years or older were more likely to receive on-the-job supports (supported employment services) than those who were below 18 years of age at the time of application to VR. Those who had both private and public health insurance were more likely to receive on-the-job supports, compared to those who used private insurance, public insurance, and those who were uninsured. Student status had little effect on receipt of on-the-job supports. Approximately 23% of White service users received on-the-job supports compared to 28% of those who were Black and 21% of those who were other/multiple races.

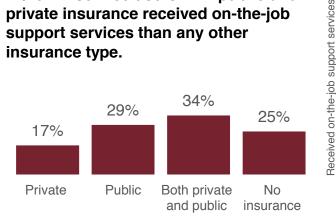
Older VR service users received onthe-job support services more often than younger ones.



Age at application

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

More VR service users with public and private insurance received on-the-job support services than any other insurance type.



Type of health insurance

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

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- 7. 34 CFR § 361.5(b)(9)

VR Outcomes



Photo Credit: SMILE Biscotti. Photographer: Cole Schlessinger

Well over half achieve employment but most work part-time.

Our key findings

- 60% of people with autism who used VR services **left VR with employment.** VR defines employment as holding a job (with or without supports) in an integrated workplace for at least 90 days.
- The 60% employment rate does not mean the remaining 40% could not find work. Of the 40% who were not counted as employed at the time they exited VR, the most common reasons were refusal of further services or inability to contact or locate the person. We do not know whether these people found work.
- About one-third of those who became employed were in supported employment at the time of VR exit. They received on-the-job supports to obtain and maintain employment for at least 90 days before exiting VR services. We do not know how many were able to secure continuing supports after VR services ended.
- Overall, 80% of those who got a job were employed part-time with median weekly earnings of \$160. Earnings were slightly higher for those who were employed without supports and lower for those in supported employment.
- The most common job type was office and administrative support. About one in four people worked in an office job.

Employment matters

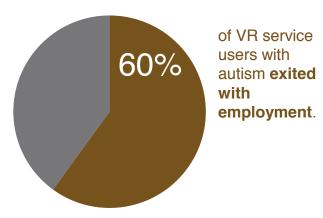
Key employment indicators include whether people have jobs or not, the types of jobs people work, their hours and wages, and whether workers require supports to maintain employment. This chapter provides details about these employment outcomes for those with autism.

> As you read, you will encounter many terms that have official (regulatory) definitions. To learn more about the specific meaning of concepts like integrated employment, competitive work, employment outcomes, supported employment, or others, please see the VR Basics chapter.

Sixty percent of VR service users with autism got a job.

Of all individuals on the autism spectrum who received VR services, 60% exited with some type of employment. The rate of employment for those with autism was roughly similar to the 56% employment rate for all individuals who received VR services across disability types.

Over half of VR service users with autism left VR with a job.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

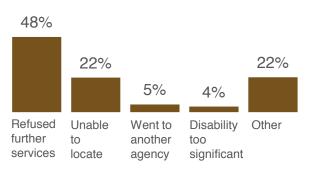
If a person who received VR services was **employed**, it meant they had a job for at least 90 days. In the dataset, they were counted as employed at the time that their VR case was closed. We don't know what happened after they exited VR. We do not know how many were able to secure continuing supports after VR services ended.

For the 60% of individuals on the autism spectrum who received VR services and became employed, median earnings were \$181 per week, and they worked an average of 23 hours per week.

What happened to the other 40% who were not counted as employed at exit?

The 60% employment rate does not mean the remaining 40% could not find work. In any publicly provided service, there will always be some people who drop out of services or don't actively participate. For VR service users with autism, the most common reason for exiting VR services without employment was refusal of further services. Reasons for refusing services were not in the dataset. Others were unable to be contacted or located. A lower percentage were transferred to another agency, and others were deemed to have a disability too significant to benefit from VR services.

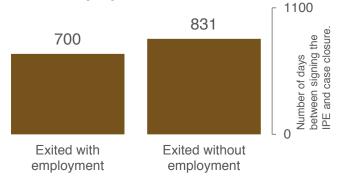
Refusal of services was the most common reason that people with autism exited VR services without a job.



Those who spent more time in VR were less likely to become employed.

VR service users with autism who left VR with employment actually spent less time in VR. While we have no single explanation for this phenomenon, it is possible that those who left without employment had higher levels of impairment, making it more challenging to achieve successful employment.

Those with autism who became employed exited VR an average of 130 days (4 months) sooner than those who exited without employment.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

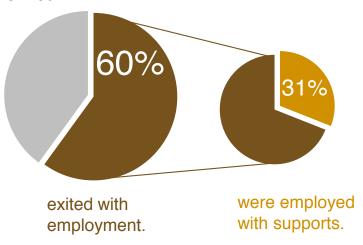
Note on understanding the indicators below: It's difficult to describe workers with autism as a single group, because people with autism vary in their challenges and how well they function in a workplace. In the rest of this chapter we will report results separately by whether people worked in employment without supports or in supported employment, and whether they worked part-time or full-time.

About one-third had supported employment.

Of people with autism who exited with employment, nearly onethird had supported employment. If people worked in supported employment, it means they worked in an integrated setting but required services to support and maintain that job. Supported employment might focus on teaching job tasks or the rules of a workplace, for example, or learning how to navigate to/from a job.1 VR service users typically receive supported employment services for a period of time generally not exceeding 18 months. VR-funded supports for employment end once a person exits the VR system. Read more about **supported employment** in the **VR Basics** chapter.

Keep in mind... In this chapter we are reporting what was happening at the time of VR exit. We don't know whether people continued receiving supports after exit. Even if people have supported employment at the time of exit, they do not receive that service from VR once they exit the VR system.

Almost one-third of workers with autism had on-the-job supports* when they exited VR.



*On-the-job supports through VR end after VR exit. A person who has supported employment may receive on-the-job supports from another provider at this time, but they are no longer provided by or paid for by VR.

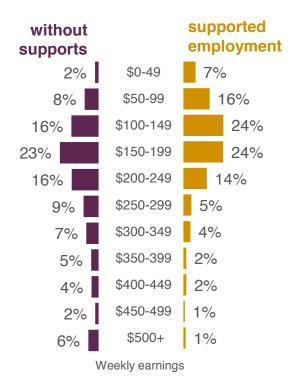
Those who had supported employment worked fewer hours and earned less.

Overall, VR service users with autism averaged 23 hours of work per week. Those who were employed without supports averaged 25 hours per week, while those who were in supported employment worked an average of 20 hours per week.

Note: For the rest of this chapter, we will focus on **median earnings**, which helps us think about the central point of the earnings instead of average earnings. Averages (means) are affected by extreme numbers such as the few people who earned the highest wages. Medians are not as affected by extremes.

The income distribution was skewed, as is typical of wage distributions in the general population. A few people who were employed without supports earned more than \$500 per week, but nearly half (49%) earned less than \$200 per week. Nearly three-quarters (71%) of people who worked in supported employment earned less than \$200 per week.

Distribution of weekly earnings for VR service users with autism in employment with and without supports.

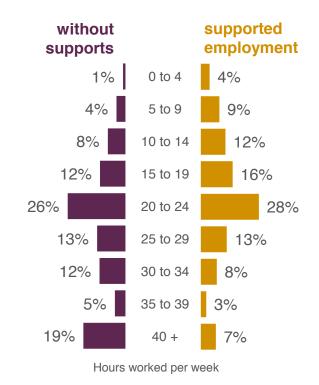


Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Most worked in part-time jobs with belowaverage wages.

Of those who left VR with a job, about 80% worked part-time (fewer than 35 hours per week) and their earnings centered around \$160 per week (median earnings), compared to \$240 for U.S. part-time workers over age 16.²

Distribution of hours worked per week for VR service users with autism in employment with and without supports.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Part-time workers with and without supports. Of those who were **employed without supports**, 76% worked part-time with median weekly earnings of \$170. Approximately 90% of those who had **supported employment** were part-time employees with median weekly earnings of \$145.

What about full-time workers? Very few worked in full-time jobs, but those who did had median weekly earnings of \$380, compared to median weekly earnings of \$791 for full-time workers in the U.S.³ Those with autism who were employed without supports full-time had median weekly earnings of \$388, compared to \$360 for those who had supported employment.

Working with autism in the U.S.: Hours and earnings at VR exit

Of all employees in the U.S. in 2014:



19% worked part-time.

\$240

was the median weekly income for part-time workers.

\$79 I

was the median weekly income for full-time workers.

How do VR service users with autism compare?

Of those a job:	with autism who left VR with		with autism who left VR with did not need supports:	
80%	worked part-time.	76%	worked part-time.	
\$160	was the median weekly income for part-time workers.	\$170	was the median weekly income for part-time workers.	
\$380	was the median weekly income for full-time workers.	\$388	was the median weekly income for full-time workers.	
69%	were employed without supports.	Of those with autism who left VR with a job and required employment supports:		
31%	were employed with supports.	90%	worked part-time.	
		\$145	was the median weekly income for part-time workers.	
		\$360	was the median weekly income for full-time workers.	

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

A note on poverty. The federal poverty guideline for 2014 was \$11,670 for a single adult. Most workers on the autism spectrum held part-time employment, and their annual median earnings fell below the federal poverty line.

What types of jobs did VR service users with autism have?

More than three-fourths of individuals on the autism spectrum who exited VR with employment were employed in one of six job types. The most common job type was office and administrative support, and nearly one-quarter worked in office jobs.

Job types were mostly similar across VR users with autism whether they required supported employment or not. However, there were some differences. More of those who had supported employment (20%) worked in food preparation or building and grounds cleaning and maintenance (16%), compared to those who were employed without supports.

Office and administrative support was the most common job for individuals on the autism spectrum at the time they exited VR.

employment without supports			supported employment
22%		l in office and trative support	22%
16%		ked in food tion and serving	20%
10%	grounds	d in building, s, cleaning, or intenance	16%
11%	work	ced in sales	9%
8%		transportation terial moving	10%
8%	worked	in production	9%
- 26%	worked i	in another area	13%

Twice as many people who worked in **employment** without supports had jobs in another area. This suggests they held a wider range of job types.

We found that one-fourth (26%) of those with autism who were employed without supports had jobs in the "other" category (outside of the top six job types). We looked further to see what "other" types of jobs people held. These jobs included: maintenance jobs (6%), personal care jobs (5%), computer and mathematical occupations (2%), healthcare support (2%), education (1%), protective services (1%); and arts, design, entertainment, sports, and media occupations (1%). Many of these occupations were in line with jobs projected to have the highest growth rate in 2014-2024 (See next section on labor market needs).

Of the 13% of people who had supported employment and held "other" types of jobs, these included: maintenance jobs (5%), and personal care jobs (4%). When we looked further at the "other" types of jobs that people who had supported employment held, there was less variety in these jobs.

Most common job types for those with autism matched labor market needs.

Recent guidance from the Rehabilitation Services Administration reminded state VR offices that all people who use VR services, particularly those with significant disabilities, should be able to participate in jobs that are available to others in the general population.⁵ The Workforce Innovation and Opportunity Act (WIOA) also requires a focus on training people for jobs that match labor market needs.

Some of the most common types of jobs that people with autism held when they exited VR were in line with jobs that have high projected growth for 2014-2024 according to the U.S. Bureau of Labor Statistics.⁶ These jobs included office clerks (under office and administrative support occupations), laborers and materials movers (transportation and material moving occupations), stock clerks and line fillers (office and administrative support occupations), truck drivers (transportation and material moving occupations), janitors and cleaners (building and grounds cleaning and maintenance occupations), sales representatives and retail sales workers (sales and related occupations).

However, many of the other top growing occupations for the next decade did not match the top job types held by people with autism. These included: home health aides (healthcare support occupations), personal care aides (personal care and service occupations), medical assistants (healthcare support occupations), medical secretaries (office and administrative support occupations), and nursing assistants (healthcare support occupations); computer systems analysis (computer and mathematical occupations); and market research analysis and marketing specialists (business and financial operations occupations).6

SPOTLIGHT: Outcomes of Students

The Workforce Innovation and Opportunity Act (WIOA) underscores that "A high proportion of students with disabilities is leaving secondary education without being employed in competitive integrated employment, or being enrolled in postsecondary education;" and that "there is a substantial need to support such students as they transition from school to postsecondary life" (Sec. 402(a)(7)(A)).

New federal policy like WIOA aims to bridge the transition from school to work by connecting more students to VR before they leave high school. States now must allot 15% of VR funding to services aimed at successfully transitioning students into postsecondary employment or education. WIOA also directs half of state supported employment funds to assist students with the most significant disabilities in extended services for up to 4 years. It also encourages employers to provide more opportunities for internships and apprenticeships.

The RSA-911 2014 dataset offers an opportunity for us to establish baseline findings about those who began VR as secondary students. A variable was introduced in this dataset that allows us to track who was in secondary school at the time of application for VR services. It is important to keep in mind that the FFY 2014 data measure outcomes that happened before WIOA **implementation**. The data presented in this report serve as baseline measures for monitoring changes as VR begins to focus on serving more transition-age youth.

Recall from the Characteristics chapter that 46% of VR service users were students at the time they entered VR. This means they were secondary students who were in high school, or sometimes in middle school, but not yet in college. Most of these students had an Individualized Education Program (IEP) (93%), a 504 accommodation plan (1%), or were students with a disability without an IEP or a 504 plan (6%).

An Individualized Education Program (IEP) is an individualized special education plan for students with a disability that specifies goals and services needed to help the child learn and perform in school as specified under the Individuals with Disabilities in Education Act (IDEA). A 504 plan is a written plan for accommodations and supports for students with a medical disability, typically used for students who don't require special education, as specified under the Rehabilitation Act of 1973.

We looked closer at the outcomes for those who were at age 22 or younger and students when they entered VR. The average age of this group was 18.1 years when they applied for VR services. They used VR services for an average of 841 days (2.3 years).

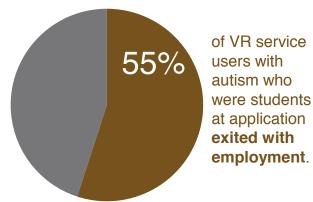
What types of VR services did those who entered as students use?

VR service users who were secondary students at the time of application received the same services as seen in the Use of **VR Services** chapter at very similar rates. The top five services were assessment (70%), VR counseling (57%), job placement services (37%), job search assistance (34%), and information and referral (26%).

How many of those who enter VR as students exited later with employment?

Approximately half (55%) of VR service users with autism who were students when they started VR services exited later with employment.

Over half of those with autism who entered VR as students left with a job.

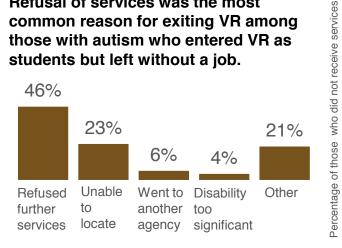


Source: Rehabilitation Services Administration (RSA-911), FFY 2014

What happened to the other 45% who did not get a job?

Some of those who entered VR as students left VR before they were employed. Nearly half of cases were closed because of refusal of further services. Another fourth were closed due to inability of the VR agency staff to locate the service user. Few transferred to another agency (6%) or were found to have a disability too significant to benefit from VR services (4%). We do not know whether these people found employment supports elsewhere or whether they had a job outside of VR when they exited.

Refusal of services was the most common reason for exiting VR among those with autism who entered VR as students but left without a job.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

How many had supported employment?

Of those with autism who entered VR as students and left with a job, nearly one-third had supported employment at the time of VR exit.

One-third of students with autism worked in supported employment. Employment without supports was more common.



Most of those who entered VR as students worked part-time and earned belowaverage wages.

About 82% of those with autism who entered VR as students and who exited with a job worked part-time (fewer than 35 hours per week), and their earnings centered around \$160 per week (median weekly earnings).

Part-time workers with and without supports. Of those with autism who entered VR as students and were employed without supports, 78% worked part-time with median weekly earnings of \$168 per week. Approximately 92% of those with autism who had supported employment were part-time employees with median weekly earnings of \$146 per week.

What about full-time workers? Of those with autism who entered VR as students and were **employed without supports**, 22% worked full-time and had median weekly earnings of \$360. Those with autism who had full-time supported employment earned \$337 per week.

What type of jobs did those who entered as students have?

The most common job types for those who entered VR as students were office and administrative support (21%), followed by food preparation (18%), building and ground maintenance (11%), sales (10%), production (9%), and transportation and materials moving (8%).

SPOTLIGHT: Outcomes of SSI Recipients

Recall from the Characteristics chapter that 29% of VR service users with autism had Social Security Income (SSI) benefits at the time they applied to VR. Very few received Temporary Assistance for Needy Families (.5%) or other public benefits (4%). We wondered about the employment outcomes of those who received SSI benefits. If people with disabilities are eligible for SSI, they are also automatically presumed eligible for VR services.

Social Security Income (SSI)

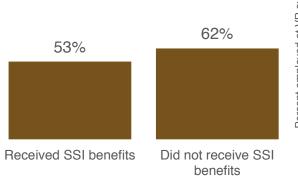
is a cash benefit provided to people who are both disabled and have a low income level. The Social Security Administration handles SSI benefits.

Those with SSI were less likely to be employed and earned less.

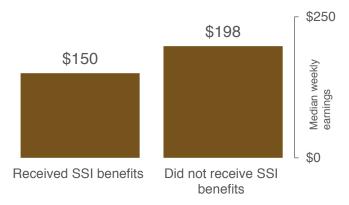
Other research indicates that for people with intellectual disabilities, receipt of public benefits like Social Security Income (SSI) tends to be associated with below-average work hours.⁷ Some people may work fewer hours to avoid losing benefits.

VR service users with autism who received SSI had a lower rate of employment at exit (53%) and lower median weekly earnings (\$150) compared to those who did not receive SSI benefits. Nearly half of those who received SSI benefits had supported employment compared to about one-fourth of those who did not receive SSI benefits. Those who received SSI benefits exited VR slightly faster than those who did not receive SSI benefits, but only by 50 days.

Those who received SSI benefits exited VR with employment less often than those who did not receive SSI.

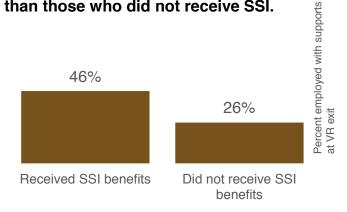


VR service users who received SSI earned less than those who did not receive SSI.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Those who received SSI benefits exited with supported employment more often than those who did not receive SSI.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

References

- 1. Hendricks, D. (2010). Employment and adults with autism spectrum disorders: Challenges and strategies for success. *Journal of Vocational Rehabilitation*, 32(2), 125-134.
- 2. The U.S. Bureau of Labor Statistics (2016). Table 38: *Median weekly earnings of part-time wage and salary workers by selected characteristics*. Accessed at http://www.bls.gov/cps/cpsaat38.htm
- 3. The U.S. Bureau of Labor Statistics (2016). *Table 37: Median weekly earnings of full-time wage and salary workers by selected characteristics*. Accessed at http://www.bls.gov/cps/cpsaat37.htm
- 4. U.S. Department of Health and Human Services. (2014, December 1). 2014 Poverty Guidelines. Accessed at https://aspe.hhs.gov/2014-poverty-guidelines
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- 6. The U.S. Bureau of Labor Statistics. (2015). *Table 1.4:*Occupations with the most job growth, 2014 and projected 2024. Accessed at http://www.bls.gov/emp/ep_table_104.htm
- 7. Nord, D. and Nye-Lengerman, K. M. (2015). The negative effects of public benefits on individual employment:
 A multilevel analysis of work hours. *Intellectual and Developmental Disabilities*, 53(4), 308-318.



How do services and outcomes compare across groups and states?

Disability Group Comparisons



Photo Credit: SMILE Biscotti, Frontdoors Magazine

How VR service users with autism fared compared to peers

Our key findings

- Individuals on the autism spectrum who received VR services comprised 3% of all VR service users, while those with intellectual disabilities (ID) made up 9% of VR service users.
- VR service users with autism were more likely to be male, White, and younger, compared to their peers with ID or other types of disabilities.
- Approximately two-thirds of autism applicants deemed eligible received VR services - the same rate as those with ID.
- Average expenditures on total services per person were nearly 20% higher for those with autism compared to those with ID.
- The employment rates following VR services were comparable for those with autism (60%), intellectual disability (55%), and other disabilities (56%). A lower percentage with autism had supported employment compared to those with ID.
- The rate of working part-time was the same for those with autism and those with ID nearly 90%. Median wages were also the same approximately \$160 per week.
- Those with autism were more likely to work in office jobs compared to their peers who received VR services.
 Working in food service or cleaning jobs was less likely compared to those with ID.

Reporting employment differences across groups

In this chapter, we compared VR service users with **autism** to those with **intellectual disability (ID)** and to those with any **other** type of disability other than autism or intellectual disability. Read more about how we analyzed group differences in the **Methods** chapter.

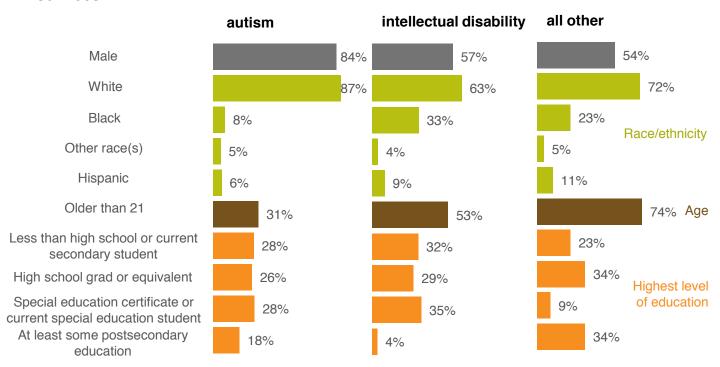
We found that people with autism who were eligible for VR services were as likely to receive them as those with ID and those with other types of disabilities, although services cost more per person for the autism group. The rate of employment following VR services was also similar across groups. Similar to those with ID, most (88%) of those with autism worked part-time and at lower wages compared to VR service users with other types of disabilities. Those with autism were most likely to work in office jobs, but less likely to work in food service or cleaning compared to those with ID.

Demographic characteristics of the autism group differed from peers

Individuals on the autism spectrum who received VR services comprised 3% of VR users, while those with ID made up 9% of VR service users. Of note, people with depressive and other mood disorders, and those with specific learning disabilities, are the two largest groups of VR service users with other disabilities.

More VR service users were male and White compared to those with ID or other types of disabilities. They were also younger, and most of VR service users with autism were 21 years or younger. More VR service users with autism completed at least some postsecondary education compared to VR service users with ID. However, about twice as many VR service users with other disabilities completed at least some postsecondary education.

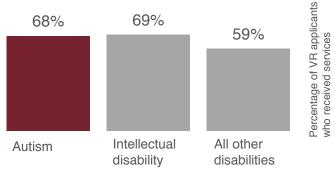
More of the service users with autism were male, White, and younger at the time of entering VR services.



Rates of service use were similar for autism and ID.

Of people with autism who were eligible for VR services, nearly 70% received them. This rate was comparable to those with ID but higher than those with other types of disabilities. Those with autism received services for a similar length of time as those with ID and with other types of disabilities - all receiving a little more than two years (716-773 days) of VR services.

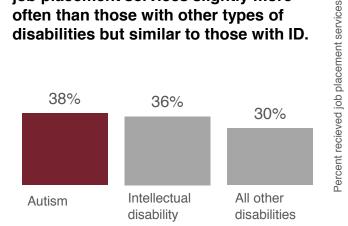
VR applicants with autism received services at a similar rate as those with ID. and a slightly higher rate than those with other disabilities.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

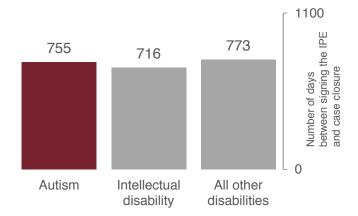
We looked at two key services - job placement and on-the-job supports services (supported employment). Those with autism used job placement services at a similar rate to those with ID and a slightly higher rate than those with other types of disabilities. Those with autism used on-the job supports less often than the ID group but far more frequently than those with other types of disabilities. Receipt of these two services has been associated with better employment outcomes (See Use of VR Services chapter).

VR service users with autism received job placement services slightly more often than those with other types of disabilities but similar to those with ID.



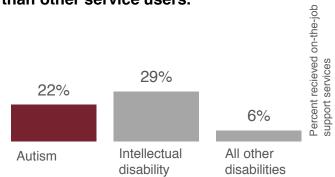
Source: Rehabilitation Services Administration (RSA-911), FFY 2014

The length of time spent receiving services did not vary greatly between groups.



Source: Rehabilitation Services Administration (RSA-911), FFY 2014

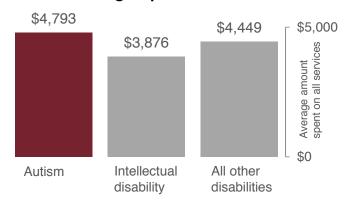
VR service users with autism received onthe-job supports (supported employment) less than service users with ID but more than other service users.



Services expenditures per person were higher for those with autism.

People with autism used an average of four different VR services, as did people with ID and those with other types of disabilities. However, the average total expenditure on services for a person with autism, across the time they received VR services, was nearly 20% higher than the average amount spent for those with ID. We could not determine from available data why expenditures were higher for those with autism given that types of services used and outcomes are roughly similar across groups.

Average expenditures for total VR services were higher for service users with autism than the other groups.

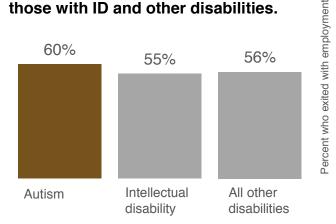


Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Rates of employment were similar across disability types.

The overall percentage of people with autism who left VR with employment was comparable to the rate of employment for those with ID and those with other types of disabilities when they exited VR.

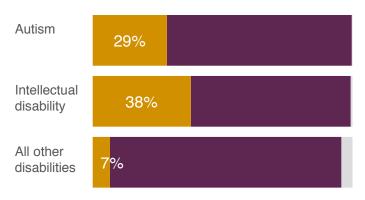
VR service users with autism exited with a rate of employment similar to those with ID and other disabilities.



Those with autism were less likely to have supported employment compared to those with ID.

Less than one-third of people with autism had supported employment - a lower rate than those with ID, but five times higher than those with other types of disabilities. Nearly three-fourths of people with autism worked in employment without supports, but nearly 90% of those with other types of disabilities were able to work without supports. Read more about supported employment in the VR Basics chapter.

VR service users with autism worked in supported employment less often than those with ID but more often than those with other disabilities.*



^{*}The two most common types of employment at VR exit are supported employment and employment without supports. However, there are other VR exit options, including homemaker, self-employment, and unpaid family worker.

Source: Rehabilitation Services Administration (RSA-911), FFY 2014

Rates of part-time work and pay were similar for those with autism and ID.

Of those with autism who left VR with a job, about 88% worked part-time (fewer than 35 hours per week) and their earnings centered around \$160 (median weekly earnings). Similarly, 88% of those with ID who left VR with a job worked part-time with median earnings of \$157 per week. A lower percentage of workers with other disabilities worked part time (72%), and they earned a higher median wage (\$200 per week). Across groups, very few worked in full-time jobs. Those with autism who worked full-time had median weekly earnings of \$383 - slightly higher than those with ID (\$340), but lower than those with other types of disabilities (\$450).

Part-time workers with and without supports. Of those with autism who were employed without supports, 75% worked part-time with median weekly earnings of \$170 per week, which was comparable to the ID group in which 72% worked part-time with median weekly earnings of \$165 per week. A lower percentage of people with other types of disabilities who were employed without supports worked part-time (47%), and their median earnings were higher (\$207 per week). Part-time workers who were employed without supports worked an average of two more hours per week (23 hours) and had slightly higher hourly wages (\$8.75) compared to those with ASD and ID who worked 20-21 hours and earned about \$8 per hour.

Approximately 89% of those with autism who had **supported employment** were part-time employees with median weekly earnings of \$150. This was nearly equivalent to those with ID, 89% of whom had supported employment as part-time employees with median weekly earnings of \$145. A lower percentage of those with other types of disabilities worked part-time in **supported employment** (78%), and their median earnings were higher (\$170 per week).

What about full-time workers? Those with autism who were employed without supports full-time had median weekly earnings of \$392. These earnings were higher than those of people with ID who had median weekly earnings of \$346, but lower than full-time people with other disabilities who were employed without supports at median weekly earnings of \$454.

Those with autism who worked full-time in **supported employment** earned more (\$360) than those with with ID (\$320). However, those who worked in **supported employment** who had other types of disabilities earned more (\$386) than those with autism.

Those with autism were more likely to work in office jobs, but less likely to work in food service or cleaning jobs.

VR service users with autism worked in office and administrative jobs more often than those with ID or other types of disabilities. Compared to their peers with ID, those with autism were less likely to work in jobs that involved food preparation and serving; or building and grounds cleaning and maintenance. Compared to peers with ID, those with autism were more likely to hold some other type of job; however, those with other disabilities were almost twice as likely to have a job in some other type of occupation.

Individuals with autism worked in office and administrative support jobs more often than their peers with ID or other types of disabilities.

		autism	intellectual disability	all other disabilities	
	worked in office and administrative support	22%	13%	15%	
	worked in food preparation and serving	16%	22%	10%	
X	worked in building, grounds, cleaning, or maintenance	11%	22%	8%	
	worked in sales	11%	6%	9%	
	worked in transportation and material moving	9%	9%	8%	
	worked in production	9%	10%	8%	
Q	worked in another area	23%	18%	43%	
Source: Rehabilitation Services Administration (RSA-911), FFY 2014					

State Comparisons



Photo credit: Community Integrated Services

States vary in services and employment outcomes.

Our key findings

- Services experiences and employment outcomes varied widely across states including receipt of VR services, expenditures on services, and employment rate following VR services. Hours worked and median weekly earnings did not vary as widely across states, but differences were still evident.
- Some states did not report data for some indicators, or reported numbers that were highly different from other states such as reporting that no transition-age youth in the state received services, or no one received on-the-job supports. We were unable to discover the reasons behind highly unusual state indicator values.

Location matters

Where you live matters. Nearly every state has some type of policy, legislation, or activities focused on implementing Employment First systems change. However, these activities vary widely across states along with other indicators of state demographic and economic factors. States are now planning for implementation of the Workforce Innovation and Opportunity Act (WIOA), which will undoubtedly introduce further variation in state-level employment innovations.

Recall that some states use an Order of Selection to prioritize who receives services. (See next page.) This happens in states that cannot afford to serve everyone who qualifies for VR services. Use of an Order of Selection may also influence service use and outcomes data for a state.

We found wide state-level variation across a number of indicators for people with autism who applied for and/or received VR services. These indicators are shown in state data tables over the next pages.

What is an Order of Selection?

Each state must have a plan in place for administering and supervising VR services and must specify how it will prioritize which individuals it serves (if all cannot be served with state funding). If a state cannot afford to serve everyone who qualifies for VR, they must determine an order of selection-a plan for how they will serve those with the highest level of employment needs first.

Variation in state-level data reporting

Some states did not report data for some indicators, or reported numbers that were highly different from other states - such as reporting that no transition-age youth in the state received services, or no one received on-the-job supports. There is no information in the RSA dataset or case report that helps us to account for these state-level differences. It is important to keep in mind that this variation affects the overall accuracy of the summary data that we are able to report and our ability to compare state outcomes from year to year.

We chose to preserve state data as it was reported in the RSA-911 database. This method helps identify state-level fluctuations in data reporting. At this time, we are unable to determine the degree to which large differences across states represent true differences in outcomes versus differences due to variations in data entry and reporting practices.

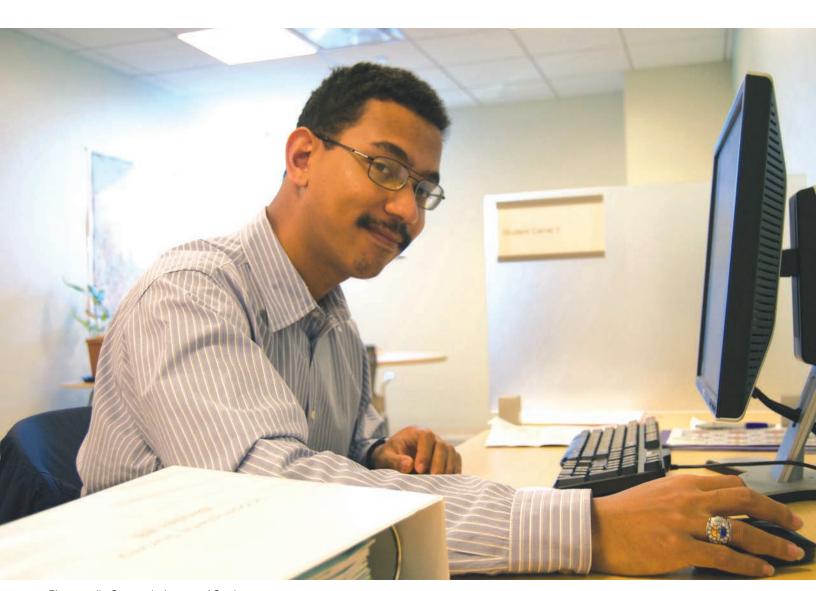


Photo credit: Community Integrated Services

What percentage of VR service users in each state had autism?

Nationally, 3% of VR service users had autism as their primary or secondary cause of impairment. The percentage of VR service users with autism varied across states but was consistently less than 10%.

Nationally, 3% of VR service users were individuals with autism. Here is how states compared:



Across states, 1-8% of VR service users in 2014 were individuals with autism.

	Number of VR service users in	Percentage of all service users in
	the state with	the state with
State	autism	autism
Alabama	168	3%
Alaska	60	6%
Arizona	142	5%
Arkansas	81	2%
California	753	3%
Colorado	143	4%
Connecticut	161	7%
Delaware	60	4%
District Of Columbia	10	1%
Florida	642	2%
Georgia	121	5%
Hawaii	32	4%
Idaho	107	3%
Illinois	539	5%
Indiana	428	6%
lowa	134	4%
Kansas	128	3%
Kentucky	155	2%
Louisiana	82	2%
Maine	96	5%
Maryland	246	6%
Massachusetts	280	4%
Michigan	513	4%
Minnesota	425	8%
Mississippi	35	1%
Missouri	369	5%
Montana	57	3%
Nebraska	108	4%
Nevada	70	4%
New Hampshire	110	6%
New Jersey	298	4%
New Mexico	25	1%
New York	906	4%
North Carolina	408	3%
North Dakota	22	4%
Ohio	593	6%
Oklahoma	114	3%
Oregon	245	6%
Pennsylvania	653	4%
Rhode Island	46	4%
South Carolina	143	1%
South Dakota	61	5%
Tennessee	158	4%
Texas	667	3%
Utah	244	3%
Vermont	92	3%
Virginia	408	6%
Washington	329	7%
West Virginia	60	2%
Wisconsin	379	5%
Wyoming	31	3%
United States total		3%

What percentage of eligible applicants with autism in each state received VR services?

A person is included in the RSA-911 2014 data file if that person was deemed eligible for VR services and their case closed in federal fiscal year (FFY) 2014. However, only some of these individuals received VR services. We call these individuals VR service users throughout this report. The reason for leaving VR without receiving services varied. See the **Use of VR Services** chapter.

Nationally, two-thirds of eligible VR applicants with autism received VR services. Here is how states compared:



States varied in the percentage of eligible applicants with autism who received VR services.

	Number of VR applicants	Percent of all applicants that
State	deemed eligible	received services
Alabama	222	76%
Alaska	75	80%
Arizona	230	62%
Arkansas	134	60%
California	1,065	71%
Colorado	232	62%
Connecticut	252	64%
Delaware	79	76%
District Of Columbia	22	45%
Florida	750	86%
Georgia	302	40%
Hawaii	68	47%
Idaho	189	57%
Illinois	671	80%
Indiana	590	73%
Iowa	175	77%
Kansas	204	63%
Kentucky	254	61%
Louisiana	153	54%
Maine	184	52%
Maryland	363	68%
Massachusetts	406	69%
Michigan	643	80%
Minnesota	595	71%
Mississippi	70	50%
Missouri	617	60%
Montana	89	64%
Nebraska	153	71%
Nevada	119	59%
New Hampshire	161	68%
New Jersey	555	54%
New Mexico	41	61%
New York	1,204	75%
North Carolina	629	65%
North Dakota	57	39%
Ohio	930	64%
Oklahoma	157	73%
Oregon	407	60%
Pennsylvania	745	88%
Rhode Island	78	59%
South Carolina	180	79%
South Dakota	90	68%
Tennessee	340	46%
Texas	1,068	62%
Utah	313	78%
Vermont	120	77%
Virginia	515	79%
Washington	543	61%
West Virginia	97	62%
Wisconsin	572	66%
Wyoming	45	69%
United States total	17,753	68%

What percentage of VR service users in each state were secondary students?

In the **Characteristics** chapter we noted that 46% of VR service users with autism were secondary students at the time of application. Federal policy like WIOA has a strong focus on making earlier connections with youth with disabilities who need VR services to reach their employment goals.

Nationally, about half of all VR service users with autism entered as secondary students. Here is how states compared:



The percentage of secondary students with autism who are VR service users varies by state.

	Number of VR	Secondary
	service users in the	students at
State	state with autism	application (%)
Alabama	168	44%
Alaska	60	37%
Arizona	142	73%
Arkansas	81	44%
California	753	64%
Colorado	143	42%
Connecticut	161	70%
Delaware	60	58%
District Of Columbia	10	60%
Florida	642	66%
Georgia	121	10%
Hawaii	32	22%
Idaho	107	39%
Illinois	539	55%
Indiana	428	46%
Iowa	134	2%
Kansas	128	24%
Kentucky	155	24%
Louisiana	82	37%
Maine	96	43%
Maryland	246	58%
Massachusetts	280	57%
Michigan	513	58%
Minnesota	425	56%
Mississippi	35	66%
Missouri	369	38%
Montana	57	5%
Nebraska	108	52%
Nevada	70	33%
New Hampshire	110	24%
New Jersey	298	0%
New Mexico	25	32%
New York	906	62%
North Carolina	408	17%
North Dakota	22	55%
Ohio	593	56%
Oklahoma	114	73%
Oregon	245	21%
Pennsylvania	653	47%
Rhode Island	46	67%
South Carolina	143	63%
South Dakota	61	46%
Tennessee	158	36%
Texas	667	32%
Utah	244	69%
Vermont	92	32%
Virginia	408	54%
Washington	329	25%
West Virginia	60	62%
Wisconsin	379	17%
Wyoming	31	35%
United States total		46%

What percentage of VR service users in each state received job placement services?

Job placement services means a referral to a specific job resulting in an interview, whether or not the individual obtained the job. Read more about job placement services in the **Use of VR Services** chapter. Nine states reported that less than 10% of VR service users with autism received job placement services, while four states reported that more than 90% of service users received job placement.

Nationally, about one-third of VR service users with autism received job placement services. Here is how states compared:



Receipt of job placement services varied by state.

	Number of VR	Received job
State	service users in the state with autism	placement services (%)
Alabama	168	35%
Alaska	60	17%
Arizona	142	3%
Arkansas	81	4%
California	753	36%
Colorado	143	45%
Connecticut	161	37%
Delaware	60	53%
District Of Columbia	10	30%
Florida	642	98%
Georgia	121	2%
Hawaii	32	0%
Idaho	107	6%
Illinois	539	43%
Indiana	428	57%
lowa	134	100%
Kansas	128	75%
Kentucky	155	12%
Louisiana	82	57%
Maine	96	93%
Maryland	246	10%
Massachusetts	280	61%
Michigan	513	52%
Minnesota	425	59%
Mississippi	35	69%
Missouri	369	82%
Montana	57	63%
Nebraska	108	71%
Nevada	70	77%
New Hampshire	110	69%
New Jersey	298	0%
New Mexico	25	56%
New York	906	14%
North Carolina	408	15%
North Dakota	22	23%
Ohio	593	69%
Oklahoma	114	20%
Oregon	245	20%
Pennsylvania	653	14%
Rhode Island	46	43%
South Carolina	143	89%
South Dakota	61	49%
Tennessee	158	8%
Texas	667	28%
Utah	244	7%
Vermont	92	77%
Virginia	408	27%
Washington	329	74%
West Virginia	60	35%
Wisconsin	379	1%
Wyoming	31	100%
United States total	31	38%
Cintou States total		00/0

What percentage of VR service users in each state received on-the-job supports (supported employment) services?

On-the-job support services (supported employment) are ongoing support services that are used to support and maintain an individual with a most significant disability in an integrated work setting for a period of time generally not to exceed 18 months. Read more in the **Use** of **VR Services** chapter.

Twenty-one states reported that less than 10% of VR service users with autism received onthe-job support services (supported employment), with eight states reported 0% receipt of supported employment services. Three states reported that more than 90% of service users received on-the-job supports (supported employment).

Nationally, almost one-quarter of VR service users with autism received on-the-job support services (supported employment). Here is how states compared:



Receipt of on-the-job support services (supported employment) varied by state.

	Number of VR	Received on-the-
01-1-	service users in	job supports (%)
State	the state with ASD	
Alabama	168	37%
Alaska	60	25%
Arizona	142	14%
Arkansas	81	1%
California	753	33%
Colorado	143	6%
Connecticut	161	4%
Delaware	60	2%
District Of Columbia	10	10%
Florida	642	98%
Georgia	121	4%
Hawaii	32	3%
Idaho	107	15%
Illinois	539	10%
Indiana	428	40%
lowa	134	100%
Kansas	128	9%
Kentucky	155	19%
Louisiana	82	0%
Maine	96	11%
Maryland	246	8%
Massachusetts	280	9%
Michigan	513	0%
Minnesota	425	6%
Mississippi	35	20%
Missouri	369	21%
Montana	57	56%
Nebraska	108	41%
Nevada	70	0%
New Hampshire	110	0%
New Jersey New Mexico	298	0%
New York	25 906	0% 52%
North Carolina	408	50%
North Dakota	22	36%
Ohio	593	
Oklahoma		0% 46%
Oregon	114 245	10%
Pennsylvania	653	32%
Rhode Island	46	9%
South Carolina	143	34%
South Dakota	61	7%
Tennessee	158	31%
Texas	667	49%
Utah	244	8%
Vermont	92	53%
Virginia	408	0%
Washington	329	15%
West Virginia	60	18%
Wisconsin	379	34%
Wyoming	31	100%
United States total		23%
Jintou Otatoo total		20 /0

Were state expenditures on services for those with autism higher or lower than expenditures for service users without autism?

Expenditures for services included total payments made from a VR agency to community rehabilitation programs per VR service user. The cost of services provided by a VR counselor at a local VR agency were not included (or reported), as these services are delivered by salaried VR agency staff and not billed as fee for service. Learn more about costs and the VR system in the **Use of VR Services** chapter.

In the **Disability Comparisons** chapter, we reported that national average expenditures for services for people with autism were 25% higher than expenditures for those without autism. Seven states reported expenditures that were lower per VR service user with autism compared to those without autism.

Nationally, the average expenditure on services for those with autism was about \$5900 for all services received. Here is how states compared:



Hawaii reported that no money was expended on services for individuals with autism. Averages in this table were calculated based on individuals who had service expenditures greater than \$0.

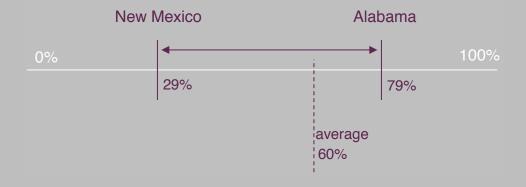
The average amount spent on services for VR service users with autism was generally higher than the amount spent on other VR service users.

State	Average amount spent on services per person (all persons without autism)	Average amount spent on services per person with autism	Difference in expenditures for autism and non-autism users
Alabama	\$5,271	\$6,519	1 \$1,247
Alaska	\$4,897	\$4,072	-\$825
Arizona	\$10,129	\$7,303	-\$2,827
Arkansas	\$3,796	\$4,110	\$314
California	\$6,614	\$5,908	-\$706
Colorado	\$13,023	\$5,374	-\$7,649
Connecticut	\$4,990	\$9,068	\$4,078
Delaware	\$5,264	\$7,587	\$2,322
District Of Colur			
		\$3,358	\$87
Florida	\$3,701	\$4,297	\$596
Georgia	\$5,287	\$4,572	-\$715
Hawaii*	\$1,408		-\$1,408
Idaho	\$2,438	\$2,458	1 \$21
Illinois	\$4,849	\$4,957	1 \$108
Indiana	\$6,143	\$6,610	1 \$468
lowa	\$3,794	\$3,781	-\$14
Kansas	\$5,340	\$4,045	-\$1,294
Kentucky	\$3,939	\$4,066	↑ \$126
Louisiana	\$5,967	\$2,360	-\$3,606
Maine	\$3,625	\$3,372	-\$253
Maryland	\$3,969	\$3,169	-\$800
Massachusetts	\$4,623	\$5,392	1 \$769
Michigan	\$3,394	\$4,526	1 \$1,132
Minnesota	\$4,958	\$5,226	1 \$268
Mississippi	\$4,880	\$2,598	- \$2,283
Missouri	\$9,774	\$6,763	-\$3,011
Montana	\$5,705	\$3,580	-\$2,125
Nebraska	\$2,376	\$1,932	-\$444
Nevada	\$1,077	\$1,413	\$337
New Hampshire		\$5,316	-\$187
New Jersey	\$5,417	\$680	-\$4,737
New Mexico	\$7,864	\$3,429	-\$4,435
New York	\$5,922	\$5,866	-\$55
North Carolina	\$5,272	\$5,757	\$485
North Dakota	\$8,010	\$4,572	-\$3,437
Ohio	\$7,966	\$9,427	\$1,461
Oklahoma	\$5,930	\$7,641	\$1,711
Oregon	\$4,110	\$5,074	\$964
Pennsylvania	\$5,706	\$8,571	★ \$2,865
Rhode Island	\$4,731	\$6,719	\$1,988
South Carolina	\$1,207	\$1,067	↓ -\$140
South Dakota	\$3,178	\$2,161	-\$1,017
Tennessee	\$5,503	\$5,227	-\$276
Texas	\$6,677		
		\$6,980	_
Utah	\$4,305	\$4,944	\$638
Vermont	\$2,473	\$4,867	1 \$2,394
Virginia	\$1,950	\$1,741	-\$209
Washington	\$6,089	\$6,647	\$559
West Virginia	\$6,126	\$6,263	\$137
Wisconsin	\$7,028	\$7,469	\$442
Wyoming	\$3,751	\$3,594	-\$158
United States t	otal \$5,481	\$5,892	1 \$411

What was the rate of employment per state for those with autism following VR services?

A VR service user is counted as "employed" once a person has held the job in an integrated setting for 90 days. In addition to looking at the percent who exit with employment, we examined the rate of employment in work without supports versus supported employment. Read more about employment without supports, supported employment, and median wages in the **VR outcomes** chapter.

Nationally, 60% of VR service users with autism exited VR with employment. Here is how states compared:



- *These states have fewer than 10 individuals from which to calculate medians.
- **The percent who exit with unsupported employment and the percent who exit with supported employment do not always sum to 100%. While supported employment and employment without supports are the most common types of employment at VR exit, there are other options, including homemaker, self-employment, and unpaid family worker.

The rate of employment at exit varied across states.

use	ercent ASD VR service rs left with mployment	Percent of employed in unsupported employment	Median wage in unsupported employment	Percent of employed in supported employment	Median wage in supported employment
Alabama	79%	64%	\$7.52	36%	\$7.37
Alaska	60%	92%	\$9.80	6%	\$7.88*
Arizona	51%	83%	\$8.25	17%	\$7.97
Arkansas	40%	56%	\$8.00	44%	\$7.89
California	60%	77%	\$8.50	23%	\$8.00
Colorado	60%	91%	\$8.00	9%	\$8.00*
Connecticut	60%	82%	\$9.00	18%	\$8.75
Delaware	70%	55%	\$9.00	45%	\$7.80
District Of Columbi	a 40%	75%	\$8.25	25%	\$7.60*
Florida	34%	52%	\$8.25	48%	\$8.00
Georgia	71%	76%	\$7.50	24%	\$7.50
Hawaii	56%	89%	\$8.00	11%	\$15.50*
Idaho	52%	93%	\$7.88	7%	\$7.32*
Illinois	51%	74%	\$8.45	26%	\$8.27
Indiana	61%	41%	\$7.79	59%	\$7.50
lowa	63%	65%	\$9.00	34%	\$7.56
Kansas	61%	69%	\$7.72	31%	\$7.25
Kentucky	53%	41%	\$8.50	57%	\$7.40
Louisiana	68%	43%	\$8.39	57%	\$7.50
Maine	47%	89%	\$8.00	11%	\$8.00*
Maryland	65%	73%	\$8.00	27%	\$7.50
Massachusetts	66%	89%	\$9.00	10%	\$9.47
Michigan	53%	94%	\$7.52	6%	\$7.60
Minnesota	64%	67%	\$8.96	32%	\$8.00
Mississippi	51%	67%	\$7.45	33%	\$7.64*
Missouri	66%	64%	\$7.57	36%	\$7.52
Montana	63%	67%	\$8.21	33%	\$7.93
Nebraska	74%	58%	\$8.00	43%	\$8.00
Nevada	67%	74%	\$9.00	26%	\$8.77
New Hampshire	60%	74%	\$8.00	24%	\$8.13
New Jersey	63%	100%	\$8.50	0%	ψ0.10
New Mexico	29%	100%	\$8.52*	0%	
New York	62%	43%	\$9.00	56%	\$8.00
North Carolina	68%	40%	\$8.00	60%	\$7.50
North Dakota	59%	69%	\$8.80*	31%	\$9.03*
Ohio	49%	80%	\$8.00	19%	\$7.97
Oklahoma	54%	98%	\$7.75	2%	\$7.25*
Oregon	65%	76%	\$9.13	24%	\$9.10
Pennsylvania	56%	49%	\$8.25	51%	\$8.00
Rhode Island	63%	83%	\$8.42	17%	\$8.50*
South Carolina	48%	58%	\$8.00	42%	\$7.56
South Dakota	79%	60%	\$8.00	38%	\$7.26
Tennessee	56%	60%	\$7.64	39%	\$7.50
Texas	65%	87%	\$7.72	13%	\$7.28
Utah	69%	95%	\$8.00	5%	\$7.33*
Vermont	68%	38%	\$8.76	60%	\$9.00
	68%	63%	\$8.00	37%	\$8.00
Virginia Washington	72%	76%	\$9.37	23%	\$9.25
		61%			\$7.27
West Virginia	60% 70%	75%	\$8.00 \$8.00	39% 25%	\$7.27 \$7.52
Wyoming	68%	95%			
Wyoming United States tota		39%	\$9.74 \$8.26	5% 31%	\$12.00* \$8.00
officed States tota	00%	3976	Ψ0.∠0	3170	φο.υυ

What was each state's autism wage gap compared to the general population?

We computed the autism wage gap by comparing the median hourly wage for each state's population to that of VR service users with autism who exited with employment without supports in 2014. The median hourly wage in the U.S. population for all occupations in 2014 was taken from the Bureau of Labor Statistics' Occupational Employment Statistics by state. This estimate includes all employees in the state working in any industry or occupation. Read more about employment and wages in the **VR outcomes** chapter.

Nationally, the gap between hourly wages for workers with autism exiting VR and all US workers was almost \$9. Here is how states compared:



The autism wage gap varied greatly across states. The wage gap is the difference between median hourly wages of all workers in a state versus VR service users with autism (employed without supports).

State with autism employed without supports Alabama \$7.52 \$14.83 \$-\$7.31		Median hourly wage	Median hourly	Autiom wage
State without supports for 2014 Alabama \$7.52 \$14.83 -\$7.31 Alaska \$9.80 \$21.73 \$11.93 Arizona \$8.25 \$16.46 -\$8.21 Arkansas \$8.00 \$14.01 -\$6.01 California \$8.50 \$18.84 -\$10.34 Colorado \$8.00 \$18.28 -\$11.67 Delaware \$9.00 \$20.67 -\$11.67 District Of Columbia \$8.25 \$31.20 -\$22.95 Florida \$8.25 \$31.20 -\$22.95 Florida \$8.25 \$14.93 -\$6.88 Georgia \$7.50 \$15.79 -\$8.29 Hawaii \$8.00 \$18.01 -\$10.01 Idaho \$7.88 \$14.93 -\$7.95 Hawaii \$8.00 \$15.63 -\$7.84 Illinois \$8.45 \$17.59 -\$9.14 Indiana \$7.79 \$15.63 -\$7.84 Illinoia \$7.84 \$9.00		for VR service users	wage per state in	Autism wage
Alabama	State			yap
Alaska				-\$7.31
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Sources: Rehabilitation Services Administration (RSA-911), FFY 2014; Bureau of Labor Statistics. "May 2014 State Occupational Employment and Wage Estimates" www.bls.gov/oes/2014/oessrcst.htm

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Photo credit: Community Integrated Services

Looking Forward



Photo credit: Community Integrated Services



Conclusions and recommendations for further research

Growing numbers of people on the autism spectrum are applying to Vocational Rehabilitation (VR) for services they need to get and keep a job. Some of these people will receive services; others exit the system without ever using services for a number of reasons. VR service users with autism receive roughly the same types of services at about the same rates as their peers with different disabilities, and about 60% of those with autism are employed at the time of VR exit - the same as their peers. However, the amount expended on services for those with autism is about 25% higher than their peers. We don't yet know why this is.

Most adults with autism who received VR supports earned wages that placed them below the federal poverty guidelines – just like their peers with other types of disabilities.

Improving systems of care depends upon having useful information about who needs what, whether people receive the services and supports they may need, and what kinds of outcomes occur as a result. This report begins to fill gaps in our knowledge about who gets VR services, which services they use, and what job outcomes happen after getting these services. We need to learn more, though, about why some do not receive services, which services are most effective, and why people in some states do so much better than people in other states.

We conclude this report by noting the most significant research gaps and opportunities:

- The finding of significantly higher expenditures on services for those with autism compared to those with intellectual disabilities - but with comparable levels of services and outcomes – deserves further investigation.
- We have an opportunity to learn from innovations in states as they implement WIOA regulations and policy changes related to Employment First. (Read more in the VR Basics chapter). For example, states are currently designing pre-employment transition services (PETS). It will be important to measure the impact of these efforts and whether new state policies and programs begin to move the needle on employment outcomes for those with autism and other disabilities.
- Accurate findings depend on accurate and complete data. However, data reporting practices across states lack consistency. Are state differences in outcome indicators due to differences in state policies and programs, or do they merely reflect differences in how data is collected and reported? Research documenting differences in reporting practices could set the stage for increasing consistency and usefulness of state data.

- About one-third of people with autism who get a job through VR required supported employment services. However, those services end at VR exit, and supports to maintain employment may or may not be available through extended services paid for by other sources. It is important to understand whether people obtain the extended supports they require, how long they are able to maintain employment without support from VR, and whether they cycle back into VR because they lost a job due to inadequate follow-along support after VR services ended.
- We currently have no data directly reported by people who have participated in the VR program. All data in the RSA-911 is entered by VR agency staff. In addition to the information that VR collects about employment, wages, and hours, it is important to understand job satisfaction, how well jobs match people's strengths and aspirations, and whether people feel that employment is contributing to an improved quality of life. We can develop a more complete picture of employment by linking data sources, developing a richer set of indicators, and supplementing quantitative data with qualitative insights.
- In this report, we have mined the largest national source of
 information on publicly funded employment supports for
 adults with autism. However, we know that many people do not
 receive supports through VR. We lack basic information about
 employment experiences across the population of all adults with
 autism. There is an urgent need for research to help us know
 whether and how people are finding employment regardless of
 their involvement in VR services.



Photo credit: SARRC, Stephen G. Dreiseszun/Viewpoint Photographers

Appendix: Methods

Data sources

What data did we use for this report?

This report is based on analysis of the U.S. Department of Education's Rehabilitation Service Administration Case Service Report (RSA-911). The RSA-911 includes information on all individuals who applied for Vocational Rehabilitation (VR) services and had a VR case opened. This report mainly uses the federal fiscal year (FFY) 2014 report, which includes all individuals who had a case closed in FFY 2014 (October 1, 2013 through September 30, 2014). There are counts of VR applicants who are deemed eligible presented from FFY 2009-2013. The bulk of this report presents indicators for individuals on the autism spectrum. These individuals are all clients who exited VR services in FFY 2014 who had a primary or a secondary cause of employment impediment of autism. The group includes all individuals who met this criteria, but was limited to those who live in the 50 U.S. States or Washington D.C.

The information we gather from the RSA-911 is administrative, entered by VR staff and not completed by the individual using VR. Many national sources of information we have about autism come from surveys, where the individual or a person close to the individual answers questions.

Estimates are also included from the U.S. Bureau of Labor **Statistics** tables of current employment statistics. These estimates are freely available from http://www.bls.gov/ces/.

Data analysis

We presented descriptive data for key indicators in this report. We used percentages, means, and medians to convey how often and to what extent characteristics, experiences, and outcomes happen.

We do not present statistically significant differences in this report. Although there were statistically significant differences in the characteristics of those who did and did not receive services, which is a common occurrence in datasets of this size, we only reported differences that had practical significance.



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