



The Assistive Technology & Employment Toolkit:

A Resource for Supporting Individuals with Disabilities to Utilize Technology to Pursue & Sustain Competitive Integrated Employment (CIE)

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Introduction

Assistive Technology (AT) can impact a person’s well-being by improving their ability to see, speak, hear, walk, eat, bathe, connect with loved ones, and live more independently. As defined in the Assistive Technology Act of 2004 ([P.L. 108-364](#)), assistive technology means any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

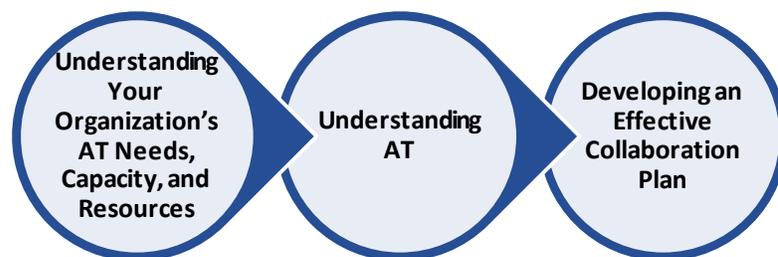
But while helping someone who might benefit from AT, how does a service provider routinely consider AT and have easy access to the AT resources that can help individuals with disabilities who are seeking an employment outcome?

The State and Territory Assistive Technology Act Programs (AT Programs) are a key resource and partner to improve AT awareness, consideration, and access. AT programs provide activities, programs, and services that help older adults and people with disabilities learn about, use, and acquire the assistive technology that best meets their unique needs. This AT Toolkit seeks to organize AT considerations and resources to make it easier to serve people nationwide.

Purpose of the Association of Assistive Technology Act Programs (ATAP)/DETAC Assistive Technology & Employment Toolkit

The purpose of this AT Toolkit is to provide the employment disability network and others who serve people with disabilities a range of tools to improve awareness about AT and to find out about resources to help select and acquire AT and connect individuals with AT device and service resources. The Toolkit consists of three sections: Understanding Your Organization’s AT Needs, Capacity, and Resources; Understanding AT; and Developing an Effective Collaboration Plan.

Figure 1. Sections of AT & Employment Toolkit



AT Toolkit Users

Care managers, information specialists, vocational rehabilitation (VR) counselors, employment first entities, outreach workers, option counselors, program managers, and others who assist



persons with disabilities and their families are all examples of the many individuals who may find this AT Toolkit useful. It is aimed at being a resource for the disability employment network. This can include, but is certainly not limited to, Centers for Independent Living (CILs), Developmental Disability (DD) Councils, University Centers of Excellence in Developmental Disabilities Education, Research, and Service (UCEDD), Protection and Advocacy entities (P&A), and other entities providing services.

Using this Toolkit

This Toolkit can help agencies and their partners start a conversation to utilize the existing AT resources in their states and communities and to look at diverse agency structures and capacities to see what steps can be taken to provide awareness and resources more fully to older adults, persons with disabilities, caregivers, and others about AT devices and services.

Section One: Understanding Your Organization's AT Needs, Capacity, and Resources

Look at Your Organization's AT Needs and Capacities

Organizations that collaborate with persons with disabilities and competitive integrated employment have different structures, offer different services, and serve varying populations. The purpose of this step is to encourage discussion within the organization and amongst staff as well as to review the organization's AT needs, capacity, and awareness of current collaborations with AT resources in their state and community.

Understanding Your AT Program

AT Programs provide a continuum of services for consumers inclusive of state level and state leadership activities that promote the ability of people with disabilities to know about, have access to, and be better able to obtain assistive technology (AT).

AT Act programs provide the following AT services:

- | State Level Activities | State Leadership Activities |
|--|--|
| <ul style="list-style-type: none">▪ Device Demonstration▪ Device Lending▪ State Financing▪ Device Reuse | <ul style="list-style-type: none">▪ Training▪ Technical Assistance▪ Public Awareness |

Services provided by AT Programs can vary outside of the consistent state level and state leadership activities offered. It is important that entities learn about other activities their AT Program may provide. It is also important to clarify that AT Programs are not statutorily permitted to purchase assistive technology for the consumer with federal formula funds through the AT Act.

Partner with your AT Program

The 56 AT Programs vary in structure, services, and identification across the nation. AT Programs may have very different programmatic titles from state to state and differ depending on their lead agency. The greatest number of AT Program lead agencies are UCEDDS, state agencies including VR agencies, and non-profits. All provide core AT services with very few exceptions. Some AT Programs provide additional AT services. Many AT Programs also use partners or sub-contractors with different names to provide some services. All AT Programs serve individuals throughout the lifespan in employment, education, and community living.

Section Two: Understanding AT

Defining AT

As mentioned in the Introduction, AT device means any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities (P.L. 108-364).

This broad definition means that assistive technology can be *anything* that helps someone do something they cannot do because of a disability or functional limitation.

AT can:

- Be homemade or store bought
- Be used “as is” or modified
- Range from no cost to expensive
- Require no training or months of instruction

Examples of AT include:

- Tennis balls placed on walker legs to make it easier to glide over carpet
- Paint used for wayfinding or as a memory aide – “Follow the blue line to the cafeteria”
- Text-to-speech software that reads text to an individual with a print disability
- Assistive listening devices that improve hearing, including personal amplified, FM, Infrared, Bluetooth, as well as audio induction or hearing loop systems
- Speech generating device used to facilitate communication by using a device to generate words and messages
- iPad with apps related to organizing, executive functioning, memory loss, etc., for an employee with intellectual or developmental disabilities and/or brain injury
- Using a power strip with a single switch to turn on or off multiple devices

Defining the Broad Range of AT Services

AT services assist in the selection, acquisition, or use of AT.

AT services may include:

- Determining the AT needs of an individual with a disability experiencing functional limitations and the impact of providing AT and AT services in the appropriate environment
- Purchasing, leasing, or otherwise providing for the acquisition of AT
- Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, replacing, or donating AT devices
- Coordination and use of necessary therapies, interventions, or services with AT devices. For example, services associated with education or VR plans and programs

- Training or technical assistance for an individual with a disability, a family member, guardian, advocate, or authorized representative
- Training or technical assistance for professionals who serve individuals with disabilities, employers, or others providing services to employ or assist with major life functions
- Expanding the availability of access to technology, including electronic and information technology

Identifying and Matching AT Devices and Services

Knowing that there may be a need for AT is just the first step toward finding a solution. The information in this section will help identify additional steps to take when looking for AT devices and services.

Identifying and Matching AT to the needs of the user may include:

- **Informal consultation and observation:** This is usually a preliminary service to explore needs and a range of potential AT solutions and may include device demonstrations.
- **Formal assessment and evaluation:** This service is performed by a skilled AT practitioner or team of professionals (e.g., occupational therapist, physical therapist, speech language pathologist) trained in the use of AT. The evaluation will include multiple methods to determine need as well as appropriate product and service recommendations.
- **Working with service providers to:**
 - Order AT
 - Arrange for installation or modification, if needed
 - Train and provide support during the learning process and beyond
 - Provide maintenance and repair services

It is critical that the individual in need of AT be involved in the decision-making process. Check out information about AT frameworks for considering AT and learn how to use person centered planning to identify AT solutions that are meaningful to the user in the Resource section of this Toolkit.

Find Your State AT Act Partner!

Don't forget - AT Programs provide services such as device demonstrations and device loans, that can help identify and match AT to the needs of the user. Find more information about each of the 56 individual AT Programs, links to website addresses, and contact information on the AT3 Center website at <https://www.at3center.net/stateprogram>.

Funding Strategies for AT

Regardless of whether seeking AT for employment, education, or community living, following steps to develop a funding strategy can help individuals be successful in their efforts.

Keep records that show:

- **Why** AT is needed. Records could include written assessments, medical prescription, and letter of medical necessity or other documents that justify the need.
- **What** AT devices and services are needed? Be sure to include information about the results of any AT trials that justify the request. Make sure to take advantage of device demonstration and device loan programs to utilize for AT trials.
- **How much** the AT and any related services costs. Documentation should include vendor information and an explanation as to why certain features or services are needed, especially if they increase the cost. If needed, explain why less expensive solutions are not appropriate and will not meet the need. Providing results from AT trials that justify the request can make all the difference!

Identify potential funding sources:

- List sources whose mission aligns with the purpose for using AT. If the AT is for employment, consider adding the employer, VR services, or other employment agencies to the list.

Retain documentation of past efforts, such as:

- Previous funding sources, if any, along with any requirements (e.g., age, income) and restrictions.
- Contact information. Communicating with the same person, provides continuity and minimizes the need to repeatedly explain the reason for the request.
- Correspondence and records of phone calls and meetings.

Submit required forms and paperwork. Be sure to:

- Follow instructions.
- Attach required documentation (e.g., insurance card, medical prescription).

- Include current contact information. If possible, provide a phone number and email address as well as a mailing address.
- Provide documentation (e.g., written evaluation report, letter of medical necessity) that justifies the request.

Be prepared – no matter what the response.

- Check to see if the funding source provides a response time. Set a calendar reminder to follow-up with the funding source if no response is received within a reasonable or expected time.
- If the request is denied, check to see what the process is to appeal the decision. Be sure to note any deadlines. For example, some agencies may require an appeal to be filed within 30-days of denial.
- Review your notes to determine if there are other funding sources to pursue.

Funding Resources for Employment Related AT

- [EARN Employer Financial Incentives](#): There are a variety of federal and state financial incentives to allow employers to capitalize on the value and talent of people with disabilities.
- [Social Security Redbook](#): Provides information about the employment-related provisions of the Social Security Disability Insurance (SSDI) and the Supplemental Security Income (SSI) programs.

Section Three: Developing an Effective Collaboration Plan

Within the network of federal disability entities, the opportunity to partner together and find solutions to common problems is a shared value. The Administration for Community Living (ACL) supports efforts within States to address the needs of people with disabilities to gain access to affordable and readily available AT. This access can be an essential factor that allows individuals with disabilities engage in employment, live at home, and enjoy their communities.

This AT Toolkit encourages collaborative approaches between CILs, UCEDDs, Protection and Advocacy agencies, DD Councils, traumatic brain injury entities, and other disability-related organizations to partner with their AT Programs to better utilize existing resources. AT Programs are a key resource to improving AT awareness, consideration, and access. The first step to an effective collaboration is to get to know your potential partners.

Interagency Collaboration

An interagency collaboration involves two or more agencies deciding to work together in partnership. It originates with the recognition that the potential partner agencies provide unique services to the same people with the intention of achieving a similar goal or goals.

Benefits of Interagency Collaboration

- Interagency collaboration can reduce duplication of services.
- Interagency collaboration allows for greater efficiency in use of resources. Often, when multiple services are required, the effectiveness of any single service is related to the availability and effectiveness of other services needed by the individual.
- Interagency collaborations promote joint problem solving.
- Interagency collaborations create the ability to take a comprehensive approach to service delivery.
- Interagency collaborations increase understanding and trust between agencies.

Assembling an AT collaboration Plan

- Understand where AT fits into your agency mission, environment, activities, and the expectations of your front-line staff.
- Improve on existing AT resources in your state or communities.
- Understand the diverse structure and capabilities of your AT Program.
- Take necessary steps to increase awareness and resources to individuals with disabilities related to AT devices and services in competitive integrated employment settings.
- Increase or enhance training on AT devices and services.
- Blend funding to provide additional AT devices and services to the individuals you serve.

Identifying Needed Supports for the Collaboration

A second step to preparing for an effective collaboration is to identify needed supports.

- What information and support would best fulfill your mission?
- What information regarding AT devices and service would best support activities related to information, referral, and assistance activities for employment services?

Examples of AT

The purpose of the lists below is to increase AT awareness and is not an endorsement by Association of Assistive Technology Act Programs (ATAP) or AT3 of any product or service mentioned.

AT to Address Employment

No/Low Technology Solutions

- Notebooks or other written task lists

Technology Solutions

- Braille displays and magnification software for individuals who are blind or experience low vision.
- Amplification devices and assistive-listening devices for persons who are deaf or hard of hearing.
- Voice amplifiers, text to speech devices, and word prediction software to help with communication issues.
- Alternative keyboards, pointing devices, and ergonomic mice for people with dexterity issues.
- Tablet devices or smartphones with downloaded applications (apps) can be a type of AT that can help persons with cognitive issues related to time management, organization, memory, task completion, and other executive functioning areas.
- There are several great resources for a search of apps that can be workplace accommodations. One is the [Job Accommodation Network's \(JAN's\) Solutions Apps listings](#) to help find vendors and projects.

AT to Address Social Isolation

No/Low Technology Solutions

- Outside visits using social distancing and masks
- Phone
 - Schedule regular phone calls with family, friends, and neighbors
 - Use [Talking Radio Book](#) service to listen to newspapers, magazines, and books if a vision impairment makes it difficult to read print.
- Radio & TV
 - Local stations
 - [Call-in radio shows](#)

- Window visits

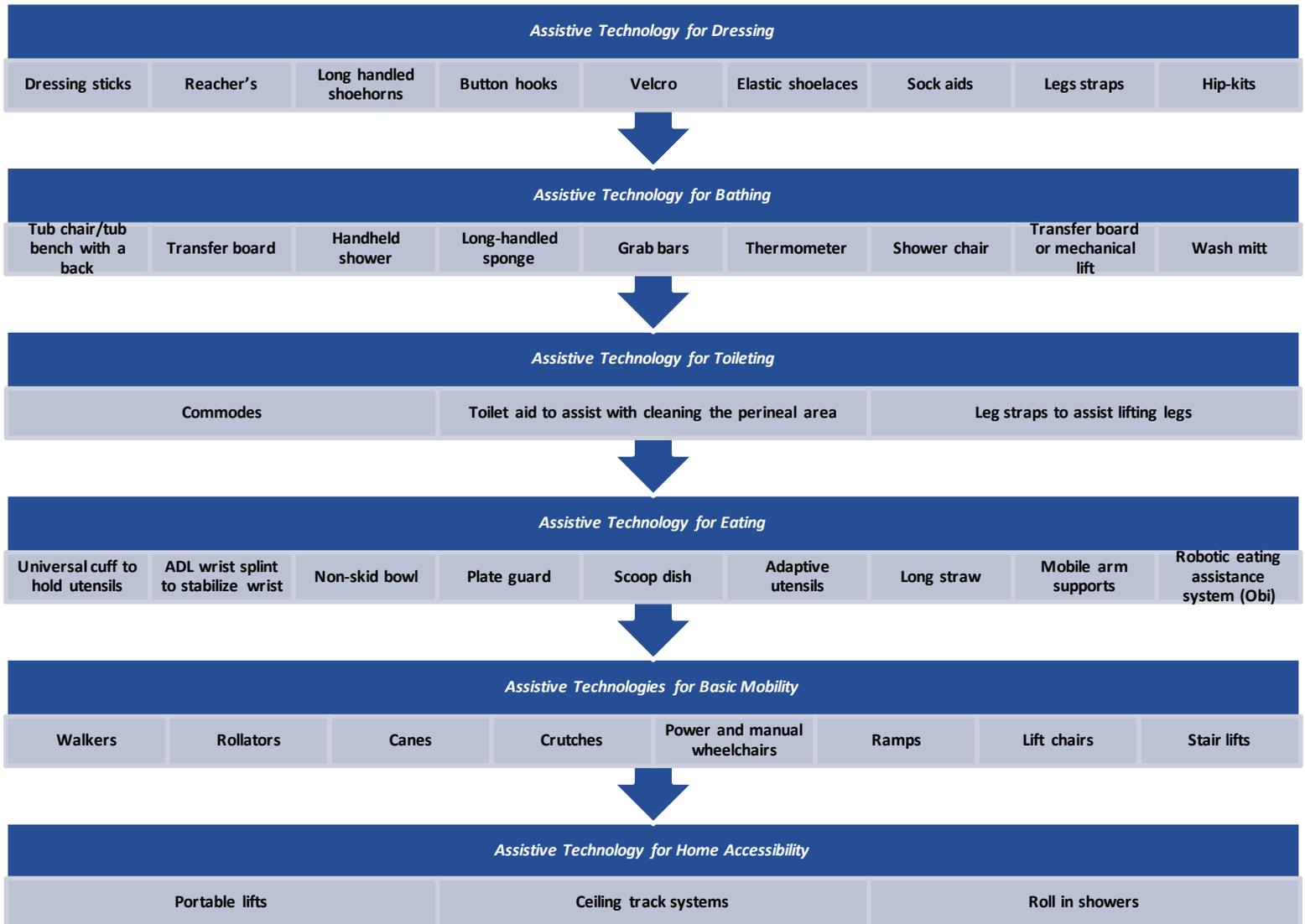
Technology Solutions

- Digital Photo Frames
 - [Nixplay Digital Photo Frame](#) – Family and friends can send photos and videos to the frame. Requires Wi-Fi Internet connection.
- [Robotic Pets and Dolls](#)
- Smart Speakers
 - [Amazon Echo Show](#) – Smart speaker with video calling, media streaming, photo album, and ability to control compatible smart home devices
 - [Google Nest Home Max](#) – Smart speaker with video calling, media streaming, photo album and ability to control compatible smart home devices
- Social Engagement – Systems
 - [GrandPad Tablet](#) – Tablet preloaded with simple to use apps
 - [iN2L](#) – Person-centered content-driven systems for assisted living, long-term care, adult day care
- Telepresence Robots
 - [Double Robot](#)
 - [Ohmni Robot](#)

AT to Support Daily Living

The most common types of AT are related to activities of daily living (ADLs). These are essential tasks people must perform to sustain a quality of life. The examples below are not exhaustive but do represent some of the most common types of AT.

Figure 2. List of Examples of AT, by ADL



Educational and Training Opportunities

Visit the AT3 Center YouTube Channel to watch videos on a range of AT-related topics, including:

- Vision
- Alternative and Augmentative Communication
- Living with Macular Degeneration
- Mobility Device Management

Access these videos and more at [AT3CenterVideos](#).

Examples of Employment Outcomes with AT Act Programs

- The Virginia Assistive Technology System (VATS) worked with a woman who was not able to complete the Manufacturing Technician Level 1 (MT) program at community college on her own. The AT specialist demonstrated and let the woman use several sensory AT items during classes to reduce anxiety and improve concentration. The woman received all her certifications including MT1 with the focused learning curriculum and the introduction of AT devices and services. She has been working full-time in a manufacturing position in Lynchburg and is also attending community college to further her education and marketability.



- In Pennsylvania, the AT Act program (TechOwl) worked with a woman who used a mouth stylus to type on her computer. It was suggested that she try Dragon Naturally Speaking instead, but she was reluctant because she did not have a good experience with an older version of this software years ago. She had a demonstration of the latest version of the software along with a headset microphone and was so impressed she decided to pursue getting her own copy of the software. She stated that this will, in her words, “make me much more employable.”



- In the DC AT Program, the VR agency borrowed a laptop with Jaws and Talking Typer software through the device-loan program. The VR staff provided weekly training sessions on use of the software for a VR client who is blind. The client was able to improve her computer skills required for her vocational goals.
- In the New York AT Act program (TRAID Program) a woman in a supported employment program was having problems with cursor control on her computer. She visited one of her AT program’s regional demonstration centers. Staff demonstrated a joystick and a mini track pad, which seemed to work. They allowed her to borrow the device for a few weeks and talked with her about funding options such as VR and the state’s DD waiver.



Next Steps

This AT Toolkit is intended to increase your understanding of the impact a wide range of assistive technology devices and services can have on the lives of the aging population and individuals with disabilities you serve.

As entities pursue information about AT, a recommended step is to contact your AT Program. The programs are prepared to support AT efforts and provide information and referrals to those who come to you in need.

Furthermore, your AT Program is a valuable resource and partner for collaboration to achieve common goals. You can connect with your AT Program at <https://www.at3center.net/stateprogram>.

Resources

General Employment Disability Resources

- [Employer Assistance and Resource Network on Disability Inclusion](#) (EARN) helps employers tap into the benefits of disability diversity through partnerships with organizations like the Job Accommodation Network (JAN), Partnership on Employment and Accessible Technology (PEAT), and the LEAD Center through the Department of Labor Office of Disability Employment Policy.
- The [Job Accommodation Network](#) (JAN) provides a wide range of resources for employers, individuals and others searching for information about employment accommodations for people with disabilities.
- The [Partnership on Employment and Accessible Technology](#) fosters collaborations to advance accessible technology to build inclusive workplaces for people with disabilities.
- [Association of People Supporting Employment First](#) (APSE) is a national organization supporting the full inclusion of people with disabilities in the workplace.
- [Able Opportunities, Inc.](#) is a supported employment provider in Washington State with a variety of tools for employers, consumers and others including:
 - Visual teaching tools for teaching iPads: <https://www.ableopps.com/free-materials>
 - Work Autonomy App for sequencing tasks, which allows the user to capture steps in film, photo, voice, and/or text, then reference the sequence captured to gain skill independently: <https://www.ableopps.com/work-autonomy>
 - Video Resume, which allow employers to see a potential employee instead of potential barriers: <https://www.ableopps.com/video-resumes>
 - [VR Technical Assistance Center for Quality Management](#): Provides training and technical assistance to assist VR agency personnel to increase the number and quality of employment outcomes for individuals with disabilities.

Additional AT Resources

- [AT Flow Chart](#)

- [How to find your AT Act Program](#)
- AT3 AT Programs – [Demonstration, Device Loan Services](#)
- Understanding Assistive Technology: [Simply Said](#)
- Understanding Assistive Technology Lending Libraries: [Simply Said](#)
- [Explore AT](#)

Awareness and Selection of AT

- Determining needs using a [person-centered approach](#)
- Frameworks to help during the consideration process
 - [Student, Environments, Tasks, and Tools \(SETT\)](#)
 - [Wisconsin Assistive Technology Initiative \(WATI\)](#)
 - [Human Activity Assistive Technology \(HAAT\)](#)

AT Tips and Solutions from the AT3 Center Blog

- [Remote Augmentative and Alternative Communication \(AAC\) Assessments – Tips, Considerations, and Unexpected Surprises](#)
- [Prepare for the Hospital – Plan Your Communication Strategy](#)
- [How to Prepare for a Routine Telehealth Visit](#)
- [AT for Dementia and Companionship](#)
- [Got Ramps for Holiday Visiting?](#)
- [AT for Bedrest](#)
- [AT for Managing Medication](#)
- [Visual or Vibrating Alert Devices](#)
- [The Wonderful World of Adapted Pens](#)

Publicly-funded Options for Assistive Technology

- [State and Territory Assistive Technology Programs \(AT Programs\)](#): Every state along with D.C. and the territories have AT Programs that can provide resources to help individuals acquire AT. This directory provides contact and website information for services and resources for each state and territory.
- [State VR Services](#): This federal program provides funding to assist states in operating statewide VR programs, each of which is an integral part of a statewide workforce development system. The VR program is designed to provide VR services for individuals with disabilities, consistent with their strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice, so that they may prepare for and engage in competitive integrated employment and achieve economic self-sufficiency.
- [Adaptive Telecommunications Equipment](#): Most states have programs that provide different types of adapted telecommunications equipment such as adapted phones for

individuals who have functional limitations such as vision, hearing, mobility, etc. Some also provide other types of devices such as iPads or tablet devices for telecommunication purposes. Most are provided at no cost for eligible individuals. This directory provides links to state telecommunication program websites.

- [ABLE \(Achieving a Better Life Experience\) Accounts](#): In 2014, Congress created tax-advantaged savings accounts called ABLE accounts. The money in ABLE accounts can be used for qualified disability-related expenses such as education, housing, and transportation. Most importantly, ABLE accounts allow people with disabilities to save money without losing their eligibility for federally funded benefits such as Medicaid or Supplemental Security Income (SSI).
- [Centers for Medicare & Medicaid Services – Home and Community-Based Services \(HCBS\) Waivers](#): HCBS programs are operated through a state agency such as Medicaid or the state’s human services agency. HCBS programs fall into two categories: health services and human services. HCBS programs may offer a combination of both types of services specifically carved out to meet the needs individuals with disabilities in their state.
- [Department of Veterans Affairs](#): If you are a U.S. military veteran, learn about medical benefits for which you may be eligible.
- [Head Start/Early Head Start](#): Department of Health & Human Services provides funding and oversees local agencies providing Head Start services. Head Start promotes school readiness of children under five from low-income families through education, health, social and other services.
- [Independent Living Services for Older Individuals Who Are Blind](#): Grants are made to states to support services for individuals aged fifty-five or older whose severe visual impairment makes competitive employment difficult to obtain but for whom independent living goals are feasible.
- [Medicaid](#): State-administered programs designed to ensure that certain low-income individuals receive the health care they need. Each state sets its own guidelines for eligibility and covered benefits.
- [Medicare.gov](#): The official U.S. site for people eligible for and/or covered by Medicare.
- [Medicare Savings Program](#): Learn about state programs that help Medicare beneficiaries with limited income and resources save money on Medicare premiums, deductibles and/or co-pays.
- [Social Security Disability Insurance \(SSDI\) and Supplemental Security Income Program \(SSI\) Work Incentives](#): Special rules make it possible for people with disabilities receiving Social Security or Supplemental Security Income (SSI) to work and still receive monthly payments and Medicare or Medicaid. Social Security calls these rules “work incentives.”
- [Special Education Services](#): under the Individuals with Disabilities Education Act, and Section 504 of the Rehabilitation Act, Local Education Agencies are responsible for providing needed assistive technology devices and services as identified by the Individual Education Program team for students with disabilities.

- [State Health Insurance Counseling and Assistance Programs \(SHIPs\)](#): State offices provide information about choosing Medicare plans, understanding your Medicare bills, how to appeal Medicare decisions and more.

Privately-funded Options for AT

This list is just a few national disability related organizations that may be able to provide assistive technology at the federal, state, or local levels.

- [Easterseals](#): Provides opportunities for people of all ages with a range of disabilities to achieve their full potential.
- [Hike Fund](#): Provides hearing devices for children with hearing losses between the ages of newborn and twenty years whose parents are unable to meet this special need financially.
- [Multiple Sclerosis Association of America \(MSAA\)](#): The MSAA Equipment Distribution Program offers clients products designed to improve safety, dignity, mobility, and independence. MSAA provides these products at no charge and ships directly to the client. Items distributed through the program include home safety products such as shower chairs and grab bars, as well as mobility devices including canes, walkers, and wheelchairs. If you have any questions, please call MSAA at (800) 532-7667.
- [Muscular Dystrophy Association \(MDA\)](#): MDA's national equipment program helps provide good-condition, gently used wheelchairs and other medical equipment, such as shower chairs, hospital beds, walkers, canes, communication devices and similar items, when available and as feasible.
- [National Multiple Sclerosis Society](#): Many local chapters provide equipment reutilization programs to assist their members. MS navigators can assist you in your search for additional financial assistance.