

## Assistive Technology for a Successful Transition

### South Carolina Assistive Technology Program

CENTER FOR DISABILITY RESOURCES  
SCHOOL OF MEDICINE  
UNIVERSITY OF SOUTH CAROLINA  
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<https://www.youtube.com/watch?v=vRi4zCicIRY>



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## Myths Regarding AT

- Assistive Technology is a luxury.
- Assistive Technology is expensive and complicated to use.
- The Assistive Technology professional knows best.
- Assistive Technology is hard to find or make.
- Assistive Technology is for old people.



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## Realities

- Assistive Technology allows individuals with disabilities to perform critical functions in the workplace. (i.e. using a computer to complete data entry forms.)
- The average reasonable accommodation for assistive technology cost less than \$500 per individual.
- 58% of job accommodations cost nothing.
- The cost of assistive technology can be shared between the individual and the employer.



## Realities

- Tax credits and deductions may also be available to employers for providing assistive technology as a reasonable accommodation in the workplace.
- Individuals with disabilities are the experts on the equipment they need to perform effectively at work; it is their responsibility to negotiate with the employer the accommodation best suited for them.



## What Is Assistive Technology?



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## Assistive Technology

- Considered “The Great Equalizer.”
- Gives people with disabilities the opportunity to learn, communicate, participate, and achieve independence.
- Allows people with disabilities to perform competitively at work, college, and the community.



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## What Is Assistive Technology?

AT includes any item, piece of equipment, or product that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities.



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## Assistive Technology Devices

- **Low Tech Devices:** Inexpensive, easily made, easy to learn, readily available, easy to replace and maintain.



Day Timer



Alphabet board



Large timer



Reacher



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## Assistive Technology Devices

- **Mid:** May cost more, require some training, have special design, often need power source.



Amazon Echo



Communication device



Hearing amplification



Large button phone



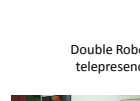
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## Assistive Technology Devices

- **High:** Higher cost, need specific training to learn, often customized.



Refreshable braille display



Double Robot telepresence



Eye-gaze computer access



Speech to text software



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## Where Are Assistive Technology Devices?

- Low, mid, and high tech devices can be found:
  - At common local stores (Home Depot, Staples, Best Buy, WalMart, Target, Office Depot)
  - At specialized vendors (Maxi-Aids, Infogrip, Independent Living Solutions)
  - In generic catalogs
  - On the Internet



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## Assistive Technology Services

- Demonstration of devices based on need.
- Selection of the appropriate device.
- Coordination with service providers (e.g., therapists, engineers).
- Training / technical assistance for the person and supporting individuals (e.g., personal assistants).



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## Job Accommodations

*Reasonable Accommodations for  
Individuals with Disabilities*

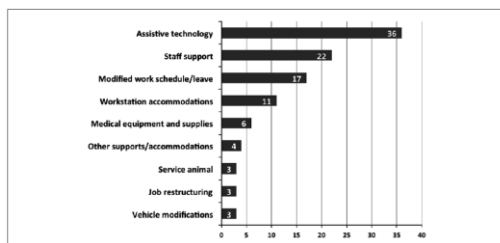


Figure 1. Number and types of employment supports and workplace accommodations used on and off the job.  
Note: Employment supports and accommodations total more than 15 because respondents reported more than one accommodation. Although hand controls and other vehicle modifications constitute assistive technology, we classified them separately here. Other supports and accommodations include changes in training materials, reimbursement for taxi fares, and wellness items.

Number and Types of Employment Supports and Workplace Accommodations Used On and Off the Job  
Denny-Brown, O'Day & McLeod (2015) Staying Employed: Services and Supports for Workers With Disabilities. *Journal of Disability Policy Studies*, 26(2), 124-131.



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## Reasonable Accommodations

Enable a person with a disability to:

- Participate equally in the job application process
- Perform “essential functions” of the job.
  - Fundamental job duties
  - Job descriptions
- Enjoy equal benefits and privileges of employment.



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## Reasonable Accommodations

- Reasonable accommodations need not be the “best” or “ideal,” but need only be “effective.”
- The employer does not have to provide an accommodation that would be primarily for personal use.
- Accommodations should assist in performing job functions.
- Undue Hardship
  - A particular accommodation may not be required if it would cause “significant difficulty or expense” to the employer
  - Another effective accommodation should be sought and implemented



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## Reasonable Accommodations

1. Develop a partnership with your employer.
2. Focus on your abilities and request accommodations that allow you to perform effectively.
3. Make a request in writing and meet with your employer to discuss the reasonable accommodations.
4. Negotiate and be willing to discuss options for assistive technology and reasonable accommodations.
5. Have a follow-up meeting with your employer and discussed the effectiveness of the accommodations and any changes that need to be made.



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## Examples of AT Accommodations

- Can be low cost to high cost

Use of color to mark files/bins/controls

Simplified instructions using diagrams/photos

Automatic bathroom soap dispensers and hand dryers

Ramps and automatic doors



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## Examples of AT Accommodations

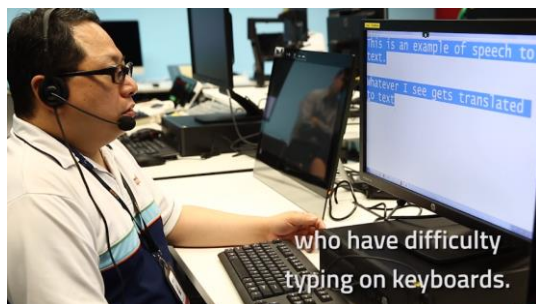
### WEEKLY CLEANING SCHEDULE

<b>EVERYDAY - TOILET</b>	<b>THURSDAY - HALL &amp; STAIRS</b>
• Wash toilet	• Sweep
• Wash floor	• Vacuum
• Wipe counters	• Wipe off water & dryer
• Disinfect of floor	• Straighten room chairs
• Tidy up trash	• Vacuum hallway & stairs
	• Organize & de-clutter closets
<b>MONDAY - BATHROOMS</b>	<b>FRIDAY - BATHROOMS</b>
• Clean toilet, sink & shower	• Change bed sheets
• Clean mirror	• Wash & dry laundry
• Wash walls	• Wash & dry laundry
• Replace towels	• Wash & dry laundry
• Empty trash bins	• Wash & dry laundry
• Clean walls & baseboards	• Wash & dry laundry
<b>TUESDAY - LIVING ROOMS</b>	<b>WEDNESDAY - KITCHEN</b>
• Sweep & mop	• Clean & polish floor
• Straighten chairs	• Clean & polish floor
• Clean under couch	• Clean & polish floor
• Vacuum furniture	• Clean & polish floor
• Wash walls	• Clean & polish floor
• Wash windows	• Clean & polish floor
<b>WEDNESDAY - KITCHEN</b>	
• Clean & polish floor	
• Clean & polish floor	
• Clean & polish floor	
• Clean & polish floor	
• Clean & polish floor	



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## Examples of AT Accommodations



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## The Cost of AT Accommodations

- The potential employer is responsible for funding any assistive technology accommodations for the application process or the job.
- However, there are funding sources to help!
  - Federal and state tax credits and deductions
  - Assistive Technology Lending Library (Try before you buy!)



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## Effective Practices

2013 Council of State Administrators of Vocational Rehabilitation (CSAVR) determined these to be the top effective practice needs:

- Address reasonable accommodation requests expeditiously,
- Have a centralized administration of and funding for addressing reasonable accommodation requests, and
- Ensure that websites where jobs are listed are fully accessible and provide a clear process for requesting a reasonable accommodation.



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## Resources for Assistive Technology in the Workplace

*Who can I contact for help?*



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## Business Leadership Network

- The Business Leadership Network (BLN) is an employer driven program designed for business leaders to promote hiring practices that enable qualified people with disabilities to enter and succeed in the workplace.
- The emphasis of the BLN is to create opportunities where employers can communicate, peer-to-peer, to provide candid and frank assessments of hiring successes and challenges.



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## Funding for AT in the Work Place

- The Employer Assistance and Resource Network (EARN) is a resource for employers seeking to recruit, hire, and retain qualified employees with disabilities <http://www.askearn.org/>
- EARN: Employer Guide to Tax Incentives for Helping Employers Hire and Retain People with Disabilities <http://lir-edl-r1.ilr.cornell.edu/askearn/r-tax-incen.cfm>
- Compensated Work Therapy (CWT) <http://www.cwt.va.gov/> is a Department of Veterans Affairs (VA) program that supports work-ready veterans in competitive jobs and consults with business and industry regarding their specific employment needs.
- Disability.gov <http://www.disability.gov> is a federal website containing disability-related resources, the Employing People with Disabilities section includes resources for employers on recruiting, hiring and retaining people with disabilities. Information is available on assistive technology and accommodations, tax incentives, occupational safety and success stories.



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## Funding for AT in the Work Place

- Office of Disability Employment Policy (ODEP) <http://www.dol.gov/odep/> The Department of Labor's Office of Disability Employment Policy (ODEP) provides national leadership on disability employment policy by developing and influencing the use of evidence-based disability policies and practices, building collaborative partnerships, and delivering authoritative and credible employment data. ODEP provides funding for services such as AskEARN and the Job Accommodation Network (JAN). The ODEP website has information for employers on the latest news on disability employment policy, events, resources, toolkits, and contact information for technical assistance support centers such as EARN.
- Work Opportunity Tax Credit (WOTC) program for employers. Relevant categories include disabled veterans and vocational rehabilitation referrals. [http://www.doleta.gov/business/incentives/opptax/PDF/WOTC\\_Fact\\_Sheet.pdf](http://www.doleta.gov/business/incentives/opptax/PDF/WOTC_Fact_Sheet.pdf)



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## For more information:

- Able Data - <http://www.abledata.com/>
- ADA National Network - <http://adata.org/>
- The National Public Website on Assistive Technology- <http://assistivetech.net/>
- Job Accommodation Network (JAN) – [www.askjan.org](http://www.askjan.org)
- US Equal Employment Opportunity Commission- <http://www.eeoc.gov/>
- Information and Technical Assistance on the Americans With Disabilities Act- <http://www.ada.gov/>
- National Organization on Disability (NOD) - <http://nod.org/>



## Other Resources

- State Assistive Technology Program
- Independent Living Centers
- State Vocational Rehabilitation
- Workforce Investment Act (WIA) Partners
- Job Accommodation Network (JAN)
  - <http://askjan.org/>
  - <http://askjan.org/webcast/archive/>



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## College Accommodations

*Reasonable Accommodations for  
Individuals with Disabilities*



## Where to Get the Assistive Technology



<https://www.youtube.com/watch?v=qb7JBbp-EXE>



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## Where to Get the Assistive Technology

A recent report from the National Center for Education Statistics states:  
**over 2.5 million college students, around 11%, live with a disability.**

[Deaf and Hard of Hearing Students](#)  
[Students With Visual Impairments](#)  
[Students with Physical Disabilities](#)  
[Students with Learning Disabilities](#)  
[Students with Psychiatric Disabilities](#)

Check out: [BestColleges.com's collection of guides for students with disabilities](#)



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## Assistive Technology and Transition to College

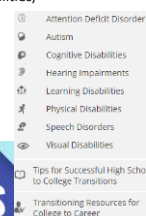
*Guiding Document for  
Assistive Technology Transition  
and  
Transition Planning Worksheet  
For AT Users*

<http://www.qiat.org/resources.html>



## College Accommodations

<http://www.affordablecollegesonline.org/college-resource-center/resources-for-students-with-disabilities/>



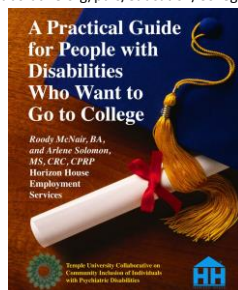
**COLLEGE RESOURCES FOR STUDENTS WITH DISABILITIES**

Support, Advocacy and Assistive Technology to Facilitate the Transition to Higher Education



## College Accommodations

[http://tucollaborative.org/pdfs/education/College\\_Guide.pdf](http://tucollaborative.org/pdfs/education/College_Guide.pdf)



## College Accommodations

**Work Early, Work Often: Employers of Young Adults with Disabilities**

<https://www.youtube.com/watch?v=qiEBBwtMB0&feature=youtu.be>

"Work Early, Work Often" is a video series created by the Youth Transitions Collaborative. Together, the three-part campaign highlights the importance of work and work-based experiences in an individual's transition to adulthood, particularly for young adults with disabilities. In this video, listen to employers discuss how exposing young adults with disabilities to real work experiences can help to meet the needs of a business and improve their bottom line. Visit [www.thenytc.org](http://www.thenytc.org) to learn more



## College Accommodations

Navigating College  
A Project of The Autistic Self Advocacy  
Network  
<http://navigatingcollege.org/download.php>



NAVIGATING COLLEGE  
A Handbook for Self-Advocates  
©2010 by The Autistic Self-Advocacy Network  
CASAN



## Sample Assistive Technology Devices for the Work, College, and the Community

**Remember – assistive technology  
selection is based on needs and  
function,  
not the name of the disability!**



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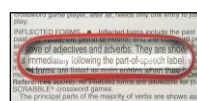
## Individuals Who Are Blind or Have Low Vision

- Optical Character Recognition System
- Screen readers
- Alternative formats-braille or large print
- Screen magnifiers
- CCTV- Closed Circuit Television
- Bump Dots
- GPS



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## Magnifiers



Bar Magnifier



Desktop Video Magnifier



Illuminated Magnifier



Hand &amp; Stand Magnifier



Handheld CCTV



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## Individuals Who Are Blind or Have Low Vision



KNFB Reader app



CCTV



VisionAssist app

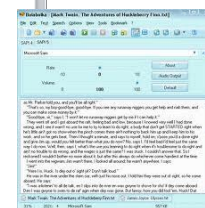


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## Text-to-Speech Software



WordQ



Balabolka



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## Individuals Who Are Deaf or Hard of Hearing

- Certified sign language interpreter
- TTY
- Relay – 711
- Telephones with amplification devices or video messaging
- Fire alarm with flashing lights
- Assistive listening devices (infrared, Loop, FM, and closed captioning decoders)
- Real-time captioning for video or web conferences



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## Amplified Phones



In-line amplifier

Portable amplifier

Big button phone

Cordless amplified phone



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## Telecommunication Devices



TTY with Large Visual Display



Handset Stand

Voice Carry-Over (VCO) Phone



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## Frequency Modulated (FM) Systems for Sound Amplification



Williams Sound Personal FM System

Conference Microphone



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## Individuals with Physical Disabilities

- Trackball computer mouse
- Touch screens
- Ergonomic keyboard
- Ergonomic chairs
- Adjustable keyboard and monitor stands
- Writing and grip aids
- Adjustable height desks and chairs
- Devices for communication
- Stand/lean stools
- Page turners
- Book holders



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## Ergonomic Keyboards



Contoured Keyboard

Goldtouch Keyboard

Ergonomic Keyboard

Keypad



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## Typing Aids

Standard keyboard with acrylic keyguard



Slip-on typing aid



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## Trackballs



Microsoft Optical Trackball



Kensington Turbo Mouse



Penny & Giles Roller Trackball



Evoluent Vertical Mouse



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## Arm & Wrist Supports



ErgoRest Forearm Support



Gel Wrist Rests



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## Ergonomic Chairs



Work Pro



Raynor Eurotech Ergo



Herman Miller  
Aeron Chair



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## Ergonomic Desks



[Workrite Sierra HXL Crank  
Height Adjustable Desk](#)



[Humanscale QuickStand  
Desktop Sit-Stand  
Workstation](#)



[Populus Vox Height  
Adjustable Perfect Corner  
Desk](#)



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## Individuals with Cognitive, Intellectual, and Developmental Disabilities

- Telephone autodialer
- Larger buttons on equipment
- Tablets or iPhones
- Memory aids
- Index cards with directions for how to perform tasks.
- Schedules
- Digital planners



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## Talking Products



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## Individuals with Learning Disabilities

- Automatic line guides
- Reading and writing templates
- Computer with voice output
- Colored labeling system
- Audio recordings
- Color Overlays
- Words highlighted as read



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## Where to Get the Assistive Technology

- Always ask the person who needs it.
- Contact an assistive technology specialist for an evaluation.
- Contact your state Assistive Technology Program
- Search internet, local stores, etc.



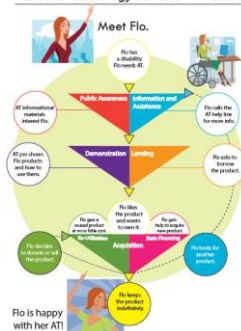
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## SC Assistive Technology Program Services

- Equipment demonstration center
- Equipment loan program
- AT Exchange
- AT Reuse Program
- Training
- Telephone Technical Assistance
- Annual Free Expo



Assistive Technology Services "Flo" Chart



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