



# Ensuring Accessibility at a One-Stop Center

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## Section Purpose

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Provide tools and information to ensure that One-Stop Centers are completely accessible to people with disabilities in terms of both physical accessibility and service delivery.

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## Section Contents

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### A) Accessibility Checklists:

- 1) **One-Stop Centers: Service Accessibility Checklist** - A comprehensive checklist to be used by One-Stop Centers to ensure service accessibility
- 2) **USDOL Disability Initiative Facilities Checklist** - A comprehensive checklist, developed by the U.S. Department of Labor, to be used by One-Stop Centers to ensure physical accessibility for people with disabilities

**B) Designing a Universally Accessible Electronic Work State and Kiosk:** Excerpts from a report presented to California's One-Stop Career Center Steering Committee, which comprehensively covers various issues and strategies for consideration in the design of a universally accessible electronic work station and kiosk

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**E) Getting Help in Making One-Stops Accessible:** A listing of resources and organizations which can assist One-Stops in ensuring full accessibility for people with disabilities

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# One-Stop Centers: Service Accessibility Checklist

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Discussions about accessibility frequently emphasize facilities and equipment - the “physical” factors that make a One-Stop usable. The U.S. Department of Labor has issued several checklists that the One-Stop system can use to assess their compliance with legal requirements for structures and devices. Accessibility of services is less concrete and readily visible but equally important. Service accessibility means that, for example, staff can use TTY machines or request interpreters; that information for customers with disabilities is available in a variety of formats and presented in a clear, understandable fashion; that emergency procedures take account of customers with disabilities; and that in general, customers with disabilities are able to equally benefit from the services of the One-Stop system as all other customers.

Under the law, it is not sufficient that the One-Stop system simply respond to requests for assistance and accommodations from people with disabilities. When local One-Stop systems design services, they are required to proactively anticipate the needs of people with various physical, mental, and sensory disabilities. This checklist provides guidelines for service accessibility as well as a summary of the most important equipment that customers need to access One-Stop resources.

Through the use of this checklist, local One-Stop systems and One-Stop Centers can help ensure they

- comply with the law (Section 504 of the Rehabilitation Act, Title II of the Americans with Disabilities Act, and the Nondiscrimination and Equal Opportunity Provisions of the Workforce Investment Act)
- create an environment that makes people with disabilities feel welcome; and
- design services so that people with disabilities can fully benefit.

*For information on Nondiscrimination and Equal Opportunity, see Section 2.*

## Staff Knowledge

- Staff recognize the importance of making people with disabilities feel welcome
- Staff have had basic awareness training on how to meet the needs of customers with disabilities
- Staff understand that they are required to provide reasonable accommodations to customers or potential customers with disabilities, unless senior staff determine that providing such an accommodation would cause an undue hardship
- Staff understand the obligations of the One-Stop Center under the Americans with Disabilities Act, the Rehabilitation Act, and the Nondiscrimination and Equal Opportunity Regulations for WIA, including:
  - ◆ people with disabilities have the same rights as anyone else to use the services of the One-Stop system
  - ◆ services and facilities must be readily accessible
  - ◆ services must be delivered in a setting that is fully integrated as possible (meaning that customers with disabilities receive services alongside customers who are not disabled)
- Staff understand that they must make reasonable modifications in service delivery to avoid discrimination against people with disabilities, unless senior staff determine that making these modifications would fundamentally alter the nature of the service

- Staff understand that the Center is required to provide appropriate auxiliary aids and services to ensure that communication with customers and potential customers with disabilities is as effective as communication with other individuals, unless this would result in a fundamental alteration in the nature of the service or activity
- Staff are aware that they cannot decide that an action which would allow program access by a person with a disability is unfeasible. Such decisions must be made by the designated senior staff member.
- Staff have been trained in emergency evacuation procedures for people with disabilities, including the evacuation of persons with mobility impairments
- Staff know how to procure and use various equipment and materials for assisting people with disabilities, including the Center's telecommunications device for the deaf (TT/TTY/TDD), accessible work stations, accessible materials, etc.

### Disclosure of Disability

- When working with customers with disabilities, staff discuss disability only as it pertains to the customer's need to access employment and training services
- Staff who are working with a customer with a disability get permission from the customer before discussing information about the individual's disability with other One-Stop staff or external individuals (e.g., other agencies)
- When working with customers with disabilities, staff provide information to other One-Stop staff about a customer's disability only as needed
- Private office space is available for discussion of disability-related issues
- All discussions with customers and other individuals about a customer's disability take place in private; if discussions are by phone, calls are made in an area where the caller cannot be overheard
- Policies and procedures are in place to ensure that staff do not disclose information about a person's disability to other customers
- Staff understand that under the ADA, the One-Stop Center may ask whether a customer has a disability (under Title II), but that employers are prohibited from doing so during the job application process (under Title I). As a result, staff also understand that they may not disclose the fact that an individual has a disability to an employer without the customer's permission.
- Staff educate employers about the limits of inquiry under the ADA
- Staff discuss with customers with disabilities the issue and implications of disclosure of disability to employers and potential employers
- The management information systems for the One-Stop have been reviewed to ensure that access to information concerning a customer's disability status, and information about their disability, is limited only to staff who require such information to effectively deliver services to the individual

### Accommodation Requests

- The One-Stop Center has procedures and guidelines for handling requests for reasonable accommodations and reasonable modifications in policies, practices, or procedures.

- ❑ A senior management person has been designated to make determinations that a reasonable accommodation or modification is unfeasible, because it would result in a fundamental alteration in the nature of the program or pose undue financial or administrative burdens
- ❑ The One-Stop Center posts clear procedures for requesting reasonable accommodations and modifications in waiting areas, the resource library, and other public areas, and includes them in writing in outreach materials.

### Registration and Orientation

- ❑ Staff offer every customer assistance with filling out forms and application materials
- ❑ When signing up for orientation, everyone is asked whether they will need assistance or accommodations to participate
- ❑ If a person needs assistance in filling out registration or intake forms, this is done one-on-one in a private room, where the individual's responses will not be overheard
- ❑ If customers are asked whether they have a disability, this is asked of every customer, and asked in writing, not verbally
- ❑ If the One-Stop Center has special programs for people with disabilities, this information is given in writing, so that people with disabilities don't have to inadvertently disclose by writing down information that is given orally
- ❑ Information in orientation sessions is explained slowly and clearly, with plenty of time and opportunities for questions
- ❑ As required by WIA regulations, every orientation session includes a presentation of customers' rights to nondiscrimination and equal opportunity, including the right to file a complaint,
- ❑ Clearly understood procedures for requesting reasonable accommodations and modifications are included in writing and reviewed verbally during orientation
- ❑ A list of the One-Stop's auxiliary aids and services for communication, assistive technology devices, and material in accessible formats is provided in writing and reviewed verbally during orientation

### Service Delivery

- ❑ People with disabilities are served in integrated settings; people with disabilities participate in the programs and services of the One-Stop Center alongside people without disabilities
- ❑ If people with disabilities are served separately from other customers, doing so meets the legal requirement that this be necessary in order for people with disabilities to have opportunities as effective as those provided to other customers
- ❑ If permissible separate programs exist at the One-Stop Center, people with disabilities are not required to participate in such programs
- ❑ People with disabilities have the access to the full range of core, intensive, and training services available to all customers, and are not served exclusively via services from Vocational Rehabilitation
- ❑ The eligibility criteria for intensive and training services do not discriminate against people with disabilities, either overtly or inadvertently [by design or in effect]

- All customers are routinely asked if they will need some type of accommodations or special assistance to take full advantage of One-Stop services
- All customers are routinely offered the option of meeting with staff in private offices
- Information is presented in a way that is understandable to people who have limited or no reading skills
- Information that is presented orally is also available in writing for people who are deaf or hard of hearing, and for people whose learning style requires reinforcement of items in writing
- Services are designed so that individuals who are not knowledgeable, comfortable with, or able to use electronic technology (i.e., computers) can fully benefit from One-Stop services
- Quiet work space is available for people with Attention Deficit Disorder and hearing impairments to thoroughly read and comprehend materials

### General Communication Requirements

- The One-Stop Center has taken appropriate steps to ensure that communication with customers and potential customers with disabilities is as effective as communication with other customers
- One-Stop staff regularly ask all customers if they need information in alternative formats, or need help understanding information
- One-Stop staff regularly inform all customers that communications aids and services are provided upon request
- The One-Stop Center has a procedure for responding to requests for auxiliary aids and services. This procedure includes a mechanism for determining that if an aid or service must be substituted for one that was requested, the aid used was equally effective
- The One-Stop Center has identified a source for sign language interpreters, and can respond quickly to interpreter requests

### Work Stations and Equipment

- Accessible work station: At least one computer work station for customers has been designed to be as universally accessible as possible for customers with disabilities. [See guidelines and examples of accessible electronic work stations elsewhere in this section].
- Large monitor: For people with low vision, the center has a 19" - 21" monitor with a moveable mounting arm that provides increased character size and a clearer, sharper image
- Screen enlargement capability: The center has computers that allow users with low vision to enlarge the print on the monitor's screen
- Voice output capability: For people with visual disabilities and reading limitations, the center has a work station that can "read" text on the screen and convert the text into voice output; computer has a headphone jack and headphones
- Flatbed scanner: The center has a scanner that can convert a paper document into electronic format [useful for people who access information through voice output and/or need documents converted to Braille]
- Trackball: The center has a work station with a trackball as an alternative to a mouse. [This is useful for customers who have gross motor skills but lack fine motor skills]

- ❑ Alternative keyboard: For people with a variety of disabilities, including those with limited use of their hands and those who tire easily, the center has a modified version of the standard keyboard that allows key selection by variable hand and finger motion
- ❑ Word prediction software: The center has word prediction software that enables the user to reduce the number of keystrokes used in typing
- ❑ Large keyboard caps and keyboard orientation aides: For customers with low vision, the center has a work station with key markings that enlarge letters and numbers on the keyboard
- ❑ Braille printer: The center has a Braille printer for use by customers and staff
- ❑ Height adjustable table: Work stations and work tables include height-adjustable tables for use by wheelchair users
- ❑ Tape recorder: A tape recorder is available for customers who have difficulty taking notes to tape presentations and discussions, and for staff to make audio recordings of written material
- ❑ Portable Assistive Listening Device: The center has a portable assistive listening device available for individuals with mild to severe hearing loss. [These devices increase the loudness of the speaker while reducing background noise.]

*[Information on work station requirements are based in part on information from “Assuring Access to Job Seekers with Disabilities in Missouri’s One-Stops”, which is incorporated into Missouri’s state workforce plan. This information was furnished by Missouri Assistive Technology. Guidelines and examples of accessible work stations and assistive technology are contained elsewhere in this section.]*

## Materials

- ❑ The One-Stop Center has basic orientation materials in alternate formats (large print, Braille, audio-tape, text on computer disk, etc.) and has also identified resources to quickly obtain other materials in alternate formats upon request
- ❑ Materials are available in formats that account for a variety of learning styles, and are also accessible to people who have limited or no reading skills (e.g., pictures, videos, audio-tapes)
- ❑ Paper materials are presented in contrasting colors (e.g., black and white)
- ❑ Videos for customers are closed-captioned
- ❑ The One-Stop’s website is fully accessible to people with disabilities and “Bobby” approved. [A free service that analyzes web pages for their accessibility to people with disabilities — [www.cast.org/bobby](http://www.cast.org/bobby)]

## Evacuation Procedures

- ❑ There is a mechanism for ensuring that people who are deaf or hard of hearing are aware of an activated fire or smoke alarm
- ❑ There is an established emergency evacuation procedure that addresses the needs of people with disabilities, including persons with mobility impairments

## Marketing Materials and Outreach

- ❑ Marketing materials mention people with disabilities as one of the groups that One-Stop Centers serve

- ❑ Pictures and graphics in marketing materials include positive images of people with disabilities receiving services with other customers
- ❑ The One-Stop Center indicates that it is an “equal opportunity employer/program” and that “auxiliary aids and services are available upon request to individuals with disabilities” in recruitment brochures and other materials. These materials also indicate the telephone number of the center’s TDD/TTY or relay service
- ❑ A list of the One-Stop’s auxiliary aids and services for communication, assistive technology, and material in accessible formats is provided as part of outreach materials
- ❑ As part of its efforts to provide universal accessibility, the One-Stop Center does outreach to people with disabilities, as required by WIA regulations. This includes such activities as:
  - ◆ Advertising in media that targets people with disabilities
  - ◆ Sending notices about One-Stop activities to community groups, organizations and associations that people with disabilities participate in
  - ◆ Consulting with community groups, organizations, and associations about ways in which the One-Stop Center can improve its outreach and services to people with disabilities
- ❑ Off-site presentations to the general public by One-Stop staff are held in locations that are fully accessible for people with disabilities
- ❑ Presentations to the general public include a discussion of customers’ rights concerning nondiscrimination and equal opportunity, as required by WIA regulations

### Access to Transportation

- ❑ If the service delivery area has public transportation, the One-Stop Center is in a location that provides optimal public transportation access so that people with disabilities and others who do not drive can easily reach the center
- ❑ Any One-Stop materials that contain driving directions, also include public transportation directions, and/or other transportation options for individuals who do not drive. This includes directions contained on the One-Stop web site.
- ❑ If the service delivery area is not served by public transportation, the One-Stop Center has taken steps to ensure that individuals who do not drive, including people with disabilities, have access to the full range of One-Stop services. This can include developing transportation options and resources, delivering services in satellite locations, etc. See section 12 on Transportation for suggestions

### Notice on Equal Opportunity and Nondiscrimination

- ❑ The One-Stop Center posts notices in the waiting area, resource library, and other public areas that outline rights and protections for people with disabilities and other individuals, including the right to equal opportunity, accessible services, and complaint procedures. These posters comply with the required wording in the nondiscrimination and equal opportunity regulations, and include the contact information of the Equal Opportunity Officer
- ❑ The required notice about nondiscrimination and equal opportunity is :
  - ◆ Included in orientation materials made available to every customer
  - ◆ Included in handbooks and manuals

- ◆ Included in marketing materials
- ◆ Disseminated in internal communications
- ◆ Placed in each customer's file
- ◆ Provided in accessible formats
- ◆ Provided to applicants for employment and employees
- ◆ Provided to unions or professional organizations that hold collective bargaining or professional agreements with the One-Stop
- ◆ Provided to sub-recipients or subcontractors that receive WIA Title I funds from the One-Stop

### Equal Opportunity and Nondiscrimination Regulations

- The One-Stop Center has an Equal Opportunity Officer, who is a senior level employee, as required by WIA regulations
- The Equal Opportunity Officer fulfills all the requirements of this position including:
  - ◆ Serving as the liaison with the U.S. Department of Labor Civil Rights Center
  - ◆ Monitoring the One-Stop Center's activities and written policies to ensure compliance with all applicable laws pertaining to nondiscrimination and equal opportunity
  - ◆ Receiving and investigating any complaints concerning possible discrimination by the One-Stop Center
  - ◆ Reporting directly to appropriate officials (including the state WIA director and Governor's WIA liaison) about equal opportunity matters
  - ◆ Participating in ongoing training concerning nondiscrimination and equal opportunity
- One-Stop management and staff are aware of and follow the requirements contained in the state's Methods of Administration (MOA) for Nondiscrimination and Equal Opportunity under WIA
- Services, programs, and facilities are reviewed at least annually to ensure that the One-Stop and its services are nondiscriminatory and provide equal opportunity for customers with disabilities

### Record Keeping Requirements

- Logs of complaints alleging discrimination are kept by the One-Stop Center, as required by law
- The disability status (when known) of all customers and applicants for services is recorded. This information is stored in a way that ensures confidentiality.

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# Facilities Checklist

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The following checklist was developed by the U.S. Department of Labor's One-Stop Disability Initiative to ensure that the facilities of One-Stop Centers are physically accessible and welcoming for people with disabilities, and comply with ADA requirements for physical accessibility.

*Editor's note: A few additional items have been added to the original USDOL version of this checklist*

## Part 1: Entrance Accessibility

***People with disabilities should be able to arrive on the site, approach the building, and enter the building as freely as everyone else. At least one path of travel should be safe and accessible for everyone, including people with disabilities.***

### Path of Travel

- Is there a path of travel that does not require the use of stairs?
- Is the path of travel stable, firm, and slip-resistant?
- Is the path at least 36 inches wide?
- Can a person with a visual disability detect all objects protruding into the path with a cane?

*Note: In order to be detected using a cane, an object must be within 27 inches of the ground. Objects hanging or mounted overhead must be higher than 80 inches to provide clear headroom. It is not necessary to remove objects that protrude less than 4 inches from the wall.*

- Do curbs on the pathway have curb cuts at drives, parking, and drop-offs?

### Ramps

- Are the slopes of ramps no greater than 1:12?

*Note: Slope is given as a ratio of the height to the length; 1:12 means that for every 12 inches along the base of the ramp, the height increases one inch. For a 1:12 maximum slope, at least one foot of ramp length is needed for each inch of height.*

- Do all ramps longer than 6 feet have railings on both sides?
- Are railings sturdy, and between 34 and 38 inches high?
- Is the width between railings at least 36 inches?
- Are ramps non-slip?
- At the top and bottom of ramps and at switchbacks, is there a 5-foot-long level landing at every 30-foot horizontal length of ramp?

### Parking and Drop-Off Areas

- Are an adequate number of accessible parking spaces available (8 feet wide for car plus 5-foot striped access aisle)?

For guidance in determining the appropriate number to designate, the table below gives the ADAAG requirements for new construction and alterations. For lots with more than 100 spaces, contact ADAAG (see the "Access Board" listing at the end of this section):

**Total spaces:**                      **Required # of accessible spaces:**

1 to 25	1
25 to 50	2
51 to 75	3
76 to 100	4

*Note: Check your state building code for parking requirements. State codes can be more stringent.*

- Are 16-foot-wide spaces, with 98 inches of vertical clearance, available for lift-equipped vans?  
*Note: At least one of every 8 accessible spaces must be van-accessible.*
- Are the accessible spaces closest to the accessible entrance?
- Are accessible spaces marked with the International Symbol of Accessibility?
- Are there signs reading “Van Accessible” at van spaces?
- Is there an enforcement procedure to ensure that only those who need it use accessible parking?

**Entrance**

- If there are stairs at the main entrance, is there a ramp, lift, or alternative accessible entrance?  
*Note: Do not use a service entrance as the accessible entrance unless there is no other option.*
- Do all inaccessible entrances have signs indicating the location of an accessible entrance?
- Can the alternate accessible entrance be used independently?
- Does the entrance door have at least a 32 inch clear opening (for a double door, at least one 32-inch leaf)?
- Is there at least 18 inches of clear wall space on the pull side of the door, next to the handle?  
*Note: A person using a wheelchair needs this space to get close enough to open the door.*
- Is the threshold level less than 1/4 inch, or beveled, up to 1/2 inch high?
- Are doormats 1/2 inch high or less, and secured to the floor at all edges?
- Is the door handle no higher than 48 inches and operable with a closed fist?

*Note: The “closed fist” test for handles and controls is as follows: Try opening the door or operating the control using only one hand, held in a fist. If you can do it, so can a person who has limited use of his or her hands.*

- Can doors be opened without too much force (maximum is 5 lb.)?  
*Note: You can use a fish scale to measure the force required to open a door. Attach the hook of the scale to the doorknob or handle. Pull on the ring end of the scale until the door opens, and read off the amount of force required. If you do not have a fish scale, you will need to judge subjectively whether the door is easy enough to open.*
- If the door has a closer, does it take at least 3 seconds to close?
- Is the entire front desk or at least a section of the front desk at a height where customers in wheelchairs can see over the desk comfortably and have face-to-face conversation with staff?

**Emergency Egress**

- Is there sufficient lighting for egress pathways such as stairs, corridors, and exit routes?

## Part 2: Access to Goods and Services:

***Ideally, the layout of the building should allow people with disabilities to obtain goods or services without special assistance. Where it is not possible to provide full accessibility, assistance or alternative services should be available upon request.***

### Horizontal Circulation

- Does the accessible entrance provide direct access to the main floor, lobby, or elevator?
- Are all public spaces on an accessible path of travel?
- Is the accessible route to all public spaces at least 36 inches wide?
- Is there a 5-foot circle or a T-shaped space for a person using a wheelchair to reverse direction?

### Doors

- Do doors in public spaces have at least a 32-inch clear opening?
- On the pull side of doors, next to the handle, is there at least 18 inches of clear wall space so that a person using a wheelchair can get near to open the door?
- Can doors be opened without too much force (5 lb. maximum)?
- Are door handles 48 inches high or less and operable with a closed fist?
- Are all threshold levels less than 1/4 inch, or beveled, up to 1/2 inch high?

### Rooms and Spaces

- Are all aisles and pathways to all goods and services at least 36 inches wide?
- Is there a 5-foot circle or T-shaped space for turning a wheelchair completely?
- Is carpeting low-pile, tightly woven, and securely attached along edges?
- In routes through public areas, are all obstacles cane-detectable (located within 27 inches of the floor or protruding less than 4 inches from the wall), or are they higher than 80 inches?
- Do signs designating permanent rooms and spaces, such as rest room signs, exit signs, and room numbers, comply with the appropriate requirements for accessible signage?

*Note: Mount signs on the wall, on the latch side of the door.*

### Controls

- Are all controls that are available for use by the public (including electrical, mechanical, window, cabinet, game, and self-service controls) located at an accessible height?

*Note: Reach ranges — The maximum height for a side reach is 54 inches; for a forward reach, 48 inches. The minimum reachable height is 15 inches.*

- Are the controls operable with a closed fist?

### Seats, Tables, and Counters

- Are the aisles between chairs or tables at least 36 inches wide?
- Are the spaces for wheelchair seating distributed throughout?
- Are the tops of tables or counters between 28 and 34 inches high?
- Are knee spaces at accessible tables at least 27 inches high, 30 inches wide, and 19 inches deep?

## Vertical Circulation

- Are there ramps or elevators to all levels?
- On each level, if there are stairs between the entrance and/or elevator and essential public areas, is there an accessible alternate route?

## Stairs

- Do treads have a non-slip surface?
- Do stairs have continuous rails on both sides, with extensions beyond the top and bottom stairs?

## Elevators

- Are there both visible and verbal or audible door opening/closing and floor indicators?

*Note: one tone = up, two tones = down.*

- Are the call buttons in the hallway no higher than 42 inches?
- Do the controls outside and inside the cab have raised and Braille lettering?
- Is there a sign on the jamb at each floor identifying the floor in raised and Braille letters?
- Is the emergency intercom usable without voice communication?
- Are there Braille and raised-letter instructions for the communication system?

## Lifts

- Can the lift be used without assistance? If not, is a call button provided?
- Is there at least 30 by 48 inches of clear space for a person using a wheelchair to approach to reach the controls and use the lift?
- Are controls between 15 and 48 inches high (up to 54 inches if a side approach is possible)?

## Part 3: Telephones

***There are a variety of considerations in ensuring that the phone system is accessible to people with disabilities, including phones available for use by customers.***

### Telephones

- If pay or public use phones are provided, is there clear floor space of at least 30 by 48 inches in front of at least one?
- Is the highest operable part of the phone no higher than 48 inches (up to 54 inches if a side approach is possible)?
- Does the phone protrude no more than 4 inches into the circulation space?
- Does the phone have push-button controls?
- Is the phone hearing aid compatible?
- Is there a phone adapted with high-grade amplification for use by customers with moderate to severe hearing loss, located in a quiet area, away from ambient noise?
- Is the phone with volume control identified with appropriate signage?

- Is one of the phones equipped with a telecommunications device for the deaf (TTY/TDD)?
- Is the TTY/TDD available for customers to call into the center as well as for customers to use for calling employers (if the One-Stop has phones that customers can use for calling employers)?
- Is the location of the TDD identified by accessible signage bearing the International TDD Symbol?
- Is there a hands-free speaker phone with large keypad available for use by individuals who have difficulty holding a receiver and/or dialing numbers?

## Part 4: Usability of Rest Rooms

***When rest rooms are open to the public, they should be accessible to people with disabilities. Closing a rest room that is currently open to the public is not an allowable option.***

### Getting to the Rest Rooms

- If rest rooms are available to the public, is at least one rest room (either one for each sex, or unisex) fully accessible?
- Are there signs at inaccessible rest rooms that give directions to accessible ones?
- Is there tactile signage identifying rest rooms?

*Note: Mount signs on the wall, on the latch side of the door. Avoid using ambiguous symbols in place of text to identify rest rooms.*

- Is the doorway at least 32 inches clear?
- Are doors equipped with accessible handles (operable with a closed fist), 48 inches high or less?
- Can doors be opened easily (5 lb. maximum force)?
- Does the entry configuration provide adequate maneuvering space for a person using a wheelchair?

*Note: A person using a wheelchair needs 36 inches of clear width for forward movement, and a 5-foot diameter clear space, or a T-shaped space, to make turns. A minimum distance of 48 inches, clear of the door swing, is needed between the two doors of an entry vestibule.*

- Is there a 36-inch-wide path to all fixtures?

### Stalls

- Is the stall door operable with a closed fist, inside and out?
- Is there a wheelchair-accessible stall that has an area of at least 5 feet by 5 feet, clear of the door swing, OR is there a stall that is less accessible but that provides greater access than a typical stall (either 36 by 69 inches or 48 by 69 inches)?
- In the accessible stall, are there grab bars behind, and on the side wall nearest to, the toilet?
- Is the toilet seat 17 to 19 inches high?

## Lavatories

- Does one lavatory have a 30-inch-wide by 48-inch-deep clear space in front?  
*Note: A maximum of 19 inches of the required depth may be under the lavatory.*
- Is the lavatory rim no higher than 34 inches?
- Is there at least 29 inches from the floor to the bottom of the lavatory apron (excluding pipes)?
- Can the faucet be operated with one closed fist?
- Are soap and other dispensers and hand dryers 48 inches high or less and usable with one closed fist?
- Is the mirror mounted with the bottom edge of the reflecting surface 40 inches high or lower?

## Part 5: Signage

*Signage should be designed so that it is useful for people with disabilities.*

- Is all signage 60 inches above the ground?
- Are signs on doors on the same side as the door knob?
- Is signage well lit, using uniform lighting (e.g., not spotlights), with illumination coming from behind or beside the text or sign?
- Is signage in clear contrasting colors (e.g., black and white)?
- Is signage in Braille?

## Part 6: Additional Access

*When amenities, such as public drinking fountains, are provided to the general public, they should be accessible to people with disabilities.*

### Drinking Fountains

- Is there at least one fountain with clear floor space of at least 30 by 48 inches in front?
- Is there one fountain with its spout no higher than 36 inches from the ground, and another with a standard height spout (or a single “hi-lo” fountain)?
- Are controls mounted on the front (or on the side near the front edge), and operable with one closed fist?
- Does the fountain protrude no more than 4 inches into the circulation space?

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# Designing a Universally Accessible Electronic Work Station and Kiosk

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*The following information is excerpted from a report by the Electronic One-Stop Steering Committee to California's One-Stop Career Center Task Force. One-Stop Centers may find these guidelines helpful in designing electronic work stations and kiosks that are as accessible as possible for people with disabilities.*

## **TECHNOLOGY AND SERVING INDIVIDUALS WITH SPECIAL NEEDS**

Presented by:

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### **Performance Goals For Universally Accessible Workstations**

Universal design yields products that are usable by, and useful to, the widest possible range of people. The cost to create an accessible workstation/kiosk is not generally higher than to design an inaccessible workstation/kiosk. It is recognized that it is not possible to create a product that is usable by all people under all circumstances. The objective is to design a computer workstation/kiosk that:

- can be used by individuals with the widest possible range of abilities and/or circumstances
- can be used effectively by as many people as possible without special assistive technologies
- is compatible with assistive technologies that might be used by people for whom we currently cannot provide direct access
- is commercially feasible using currently available technologies, materials, and skills

### **Accessibility Guidelines**

When readily achievable, the workstation/kiosk must provide the following types of access for individuals with special needs:

#### **1. Non-Visual Access**

All important information is presented in an auditory fashion. This includes all directories, labels for all controls, and feedback from controls that are necessary to operate the workstations/kiosk.

#### **2. Non-Auditory Access**

All essential information is presented in a visual fashion. This includes all "Help" functions and auditory information used to indicate the status of an operation (such as beeps).

#### **3. Non-Time Dependent Access**

The workstation/kiosk allows operations to be done at any rate. Response times can be adjusted over a whole range from very slow to very fast.

#### **4. Minimal Physical Ability Access**

- The workstation/kiosk can be operated through the use of a single button or activation area.
- The workstation/kiosk is compatible with assistive devices. The workstation/kiosk provides a

standard port and standard data format that are compatible with assistive control and assistive display devices that may be used by individuals with disabilities.

- The physical design of the workstation/kiosk accommodates the use of prosthetic or assistive devices.
- The workstation/kiosk allows the user to reverse all choices or to confirm them before they take effect.

#### 5. Limited Reach or Strength Access

The workstation/kiosk can be used by individuals who are sitting, standing, and/or have limited strength.

#### 6. No-Color Perception Access

The workstation/kiosk has at least one mode that does not require color perception.

#### 7. No-Speech Capability Access

The workstation/kiosk has at least one mode that does not require the user to speak.

#### 8. Documentation Access

All documentation for the workstation/kiosk is available in electronic text form.

#### 9. Non-Allergenic Access

The workstation/kiosk is made of non-allergenic materials and will not trigger photo-sensitive or audio-sensitive epilepsy.

#### 10. Novice User Access

- The workstation/kiosk provides context-sensitive “help” information
- The workstation/kiosk provides a way for a novice user to learn about the system without outside help

### Standard Features

These features make the workstation/kiosk more user-friendly:

1. Adjustable font size and monitor contrast settings [helpful for persons with visual problems]
2. The ability to adjust volume and pitch [for persons with hearing loss]
3. Sufficient physical stability to permit a user to lean on or grab parts of the kiosk for support
4. A universal “Help” button that activates on-screen user support
5. The ability to turn off unwanted output modes (sound and visual display) to ensure privacy
6. Operable by persons who have limited reading and/or language skills
7. Operable by persons who have memory, cognitive, or learning impairments
8. The capability for a repeat user to enter the system where he/she left off in a prior visit
9. At least one way to search and locate information that is usable by people who read and write at no higher than a 6th grade level
10. A secure identifier (such as a PIN) for each customer to ensure client confidentiality
11. Information that is provided in more than one language (Spanish or other relevant languages) in areas where many residents don’t speak English

*These standards for performance goals are derived, in part, from the Trace Center, the Congressional Telecommunications Access Advisory Committee, and other state sources.*

## Techniques For Increasing Accessibility

The following examples describe techniques that allow individuals with a wide range of disabilities to access and use One-Stop workstations/kiosks. These techniques also work for individuals who have reading problems or cannot read English at all.

### Use without vision

Individuals who have low vision or blindness cannot accurately use types of controls that require vision for use. These include

- mice
- track balls
- dials without markings or stops
- push-button controls where the only indication of the control's position or setting is visual

**Keys and buttons:** If the workstation includes buttons, make them discrete buttons that can be located tactually (by touch). If the workstation uses a flat membrane keyboard, putting a raised edge around the control areas or buttons makes it possible to tactually locate the keys. Once an individual locates the different controls, they need to identify what they are.

- On a standard number pad arrangement, a nib on the “5” key may be all that is necessary
- On a QWERTY keyboard, put a tactile nib on the “F” and “J” keys
- Providing distinct shapes for keys either indicates their function or makes it easy to tell them apart
- If using keys, provide some type of audio and tactile feedback so that the individual knows when the key has been activated. If the key is a two-state key (on/off), use a key that is physically different in each state (a toggle switch or a push-in/pop-out switch), so the person can tell what state it is in by feeling it
- Providing Braille labels for keys and controls allows individuals who know Braille to figure out what the controls are for. Large raised letters can work for short labels on large objects. If raised large letters are not possible, incorporate a voice mode that announces keys when they are pressed, but does not activate them.
- The workstation should provide speech output of all information (text and non-decorative graphics) on the display.
- A headphone jack, combined with a way to turn off the screen, provides confidential access to information by individuals who are blind.

### Use without hearing

- To alert the user to a message, or to warn the user, use a prominent visual indication in the field of vision (e.g. a screen flash) or a tactile signal that will attract the person's attention.
- If the equipment uses voice or speech messages to which the user must respond, a teletypewriter (TTY) accessible method for using the system could be provided.
- To allow the workstation/kiosk to be used by individuals with hearing impairments (and in noisy environments), a Show Sounds/Caption feature could be provided that would cause all important sounds to be represented visually.

- Provide written electronic text versions of all spoken graphic or movie information.
- A headphone jack allows individuals with hearing impairments to use earphones, audio jacks on their hearing aids, or inductive loops such as a “Silhouette” to tie their hearing aid directly into the audio so that they can hear more clearly.
- Vibrating alphanumerical pagers and other wireless paging systems to alert individuals

#### Examples of use with adjustable response times

- Running out of time is a common problem for people both with and without disabilities. The easiest solution is to avoid any time-out situations or places where the user must respond to a question or moving display in a set amount of time or at a specific time. Where timed responses are required or appropriate, allow the user to adjust them or set them to very high values.

#### Operation with restricted physical abilities

- If you avoid buttons that are activated when touched, an individual will be able to explore the controls in order to find the desired button. If touch-activated controls are unavoidable (for example, on a touch screen), provide an alternate mode where a confirm button is used to confirm selections (items are read when touched, and activated when the confirm button is pressed). It is also a good idea to make all actions reversible, or to require confirmation before executing non-reversible actions.
- Avoid controls that require simultaneous activation of two or more buttons. Controls which have non-slip surfaces and those that can be operated with the side of the hand, elbow, or a pencil minimize the physical activity required. Concave-top on buttons are easier to use with head sticks, mouse sticks, and artificial or trembling hands. Rotary controls can be used if they can be operated without grasping and twisting.
- Strategies for making it easier to insert cards or connectors include providing a bevel around the slot or connector, using cards or connectors that can be inserted in any orientation or which self-center or self-align. Locating the slot or connector on the front and near a ledge or open space allows the user to brace their hand or arm.
- In a “scanning” mode, individual items on the screen can be highlighted (and optionally announced). When a desired item is reached, the individual can press a switch below the screen to select that item. Although this technique is quite slow, it does provide additional access options for individuals with physical disabilities.

#### Use with restricted reaching or limited strength

- Basic strategies involve reducing the force needed to operate controls, latches, etc., and avoiding the need for sustained pressure or activity. Other strategies involve providing arm or wrist rests, providing shortcuts to reduce the number of actions needed, and eliminating the need to operate controls wherever possible by having automatic adjustments.
- Place the controls where they can be easily reached with minimal changes to body position. Many products that have controls located on different parts of the product also allow the functions to be controlled from the keyboard. Voice recognition provides flexibility of input, but it should never be the only way to adjust a function. A remote control option allows the individual to operate the device without having to move to it.

- To allow individuals who have artificial hands or prosthetic hooks or who use headsticks or mouthsticks to use the screen, it is important that the touchscreen not require that it be touched by a human body.
- A problem exists in trying to accommodate both individuals who are very short and individuals who are very tall. Three strategies for addressing this are:
  - ◆ Screens with adjustable height
  - ◆ Screens that rotate to present themselves downward or upward
  - ◆ Dual screen systems

#### Examples of compatibility with Assistive Devices

- The infrared link consists of an industry standard IrDA infrared link coupled to a Universal Disability Infrared Access Protocol. This protocol allows individuals to access and use the workstation/kiosk via the IrDA infrared link. All buttons and actions are controllable via the infrared link. Also, any information presented on the screen can be accessed via the IR link as well.
- The infrared link allows individuals to access and use the workstation/kiosk who are unable to reach and touch the standard screen. It also allows individuals who are unable to see the screen or hear any auditory output clearly enough (due to simultaneous visual and hearing difficulties) to access and use it with a separate assistive technology they would bring with them. This technique allows access by individuals with severe physical disabilities, as well as individuals who have simultaneous visual and hearing disabilities or are deaf-blind by allowing them to use personal assistive technologies.
- Almost all stationary and portable multimedia computers now include the IrDA link as a standard part of the computer. Support for this link is also built directly into Windows 95.

#### Use without color perception

- Strategies for addressing this guideline revolve around eliminating the requirement that a person see color to operate the device. This does not eliminate the use of color in any way as long as the information conveyed by the color is also conveyed in some other fashion. Avoid:
  - a number of common pairs of colors that are indistinguishable by people with color perception anomalies
  - colors with a low luminance
- As long as the colors have different hues and intensity, differently colored objects can be distinguished even on a black and white screen by their different appearance.

#### Use without requiring speech

- Provide an alternate mechanism for achieving all of the functions that are controlled by speech, including speech identification or verification.
- Make speech messages accessible by presenting them simultaneously in text form where they can be easily seen by the user. Such captions should be verbatim and displayed long enough to be easily read.
- If the system provides interactive communication using speech and video, it would be helpful to provide a method for allowing non-speech communication (e.g. text conversation) in parallel with the video.

Use that does not trigger motor/sensory seizures

- Reduce or eliminate screen flicker or image flashing. Avoid:
  - the sensitive 10-30 hertz frequency range
  - very bright flashes that occupy a large part of the visual field (particularly the center of the visual field)

Use with limited literacy

- Use graphics and illustrations to supplement and support written information
- Use words that readers can easily understand. Most word processing programs have readability formulas that staff can use to check the vocabulary level of One-Stop materials
- Use sentences that readers can easily comprehend
- Use descriptions, settings, symbols, and background examples that are understandable to most users
- Incorporate built-in memory aids, have default settings that anticipate needs, and provide immediate feedback

Use with restricted cognitive/memory abilities

- Allow users to create a personal profile that the system can recall during subsequent use of the workstation so users don't have to retrace steps they've already completed. Whenever possible, make on-site and/or off-site help available.
- Where a complex series of steps is required, some type of cueing can be provided to help lead the person through the process. It is also helpful to provide an "undo" or back-up function, so that mistakes can be easily corrected. Where systems are not reversible, request confirmation of actions.
- Use short and simple phrases or sentences on labels and instructions. Avoid abbreviations.
- Allow users to freeze moving text, or provide the same information in another type of display that does not move.

*These examples and techniques are derived, in part, from the Trace Center, the Congressional Telecommunications Access Advisory Committee, San Diego State University Center for Learning, Instruction, and Performance Technologies, and other sources. For a listing of all of the published strategies in addressing the performance guidelines, as well as for further information and links to ongoing discussions, see the Access Board's web page at: <http://www.access-board.gov> and the National Institute on Disability and Rehabilitation Research's Rehabilitation Engineering Center on Access to Telecommunications System's strategies web page at: <http://trace.wisc.edu/telecom>.*

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# Examples of Electronically Accessible Work Stations and Kiosks

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There is no one perfect way to design universally accessible work stations and kiosks. One-Stop Centers across the country are trying a variety of ideas and technologies to best meet the needs of customers with disabilities. The following examples are excerpted from a U.S. Department of Labor report, *Report-Out On Discussions With States About Facilitated Self-Service to Special Applicant Groups*

## Brevard County, Florida

Brevard Job Link adapted Workforce Organizer Screen software from Minnesota. The software overlays Windows, providing a user-friendly interface for all customers, particularly those who are unaccustomed to computers.

**Contact Person:**

Dianne Messer  
Brevard Job Link  
Phone: (407) 632-1111, extension 64030

## California

Riverside County has deployed 40 ADA-compliant information kiosks in high profile, strategic locations. Text on the touch-screen is presented at a lower reading comprehension level with pictures to accommodate people who have difficulty reading English. A help button activates a video of a person explaining the information specific to that screen. A phone handset enables customers to access companies and organizations listed on a screen without having to dial numbers. Customers can use the phone handset to schedule appointments, or register for classes with a local training provider or community college.

TouchMedia is working with Riverside and several other Service Delivery Areas (SDAs) to determine new features for the next generation of kiosks, such as sign language on-screen and Braille-to-text interface.

**Contact Person:**

Loren Sims  
Economic Development Agency of Riverside County  
Phone: (909) 955-3100

## Kentucky

The Louisville Workforce Development Cabinet has deployed accessible workstations in five One-Stop Centers. Each workstation is equipped with:

- 17-inch monitor
- a voice recognition system (Dragon Dictate Naturally Speaking)
- Kensington Trackball (a trackball fitted into a slot that can be manipulated with the forearm or hand)
- an Intelli-keyboard, whose large keys require very little pressure to activate
- Wivik on-screen keyboard
- Head Master, which allows individuals to activate on-screen key by “sipping and puffing” on a plastic straw-like device

**Contact Person:**

Dave Matheis  
Kentucky Department of Vocational Rehabilitation  
Phone: (502) 564-4440

A second generation of workstations is being designed in collaboration with the Kentucky Department for the Blind. Each workstation has:

- 20-inch monitor
- Dragon Dictate Naturally Speaking
- Kensington Trackball
- Intelli-keyboard
- text to braille interface
- “sticky keys” that allow users to hold keys down for longer periods of time and avoid multiple entries from the same key
- screen magnification software (Zoom Text Extra Level 2)
- screen reader software (JAWS for Windows 3.2)
- a Closed Circuit TV system, which enables split screen presentation and modification of the screen’s foreground and background colors
- scanning software with an OCR, which can scan text from a paper copy and read the text back to the user while highlighting each word of text on-screen in large print and color (a benefit for both people with low vision and people with learning disabilities)

The Department for the Blind is also testing the Head Master and the Wivik on-screen keyboard on this prototype.

**Contact Person:**

Roger Raybould

Kentucky Department for the Blind

Phone: (606) 677-4042

Once both prototypes have been used and assessed, the best features of both will be installed on workstations and deployed throughout the state of Kentucky.

## Minnesota

Each One Stop Center features one “super-accessible” workstation, which has:

- a fully motorized and height-adjustable table
- 17-inch color monitor (to accommodate Zoom Text)
- Kensington trackball
- ergonomic armrests, footrest, and chair
- a Boom Mic to enable the user to input voice commands for Dragon Dictate
- reduced size keyboard to accommodate people with a limited range of motion
- Tracker, a hands-free mouse that acts as an alternate input control system

Minnesota utilizes AT&T’s Translation Service to assist customers who do not speak English, and provides phone access to job listings via Jobline. Jobline, developed by the National Federation of the Blind (NFB), is a toll-free service that enables One-Stop customers to access both America’s Job Bank and participating state job banks through the telephone. Callers can create and save personal profiles that include speech preferences and access context-sensitive help information at any time. NFB will train participating agencies and entities in the use of the system. Jobline is expected to be implemented in as many as 40 states by early 2001.

**Contact Persons:**

Kathy Mullarky  
Minnesota Department of Economic Security  
Phone: (651) 297-3410

James Gashel  
National Federation of the Blind  
Phone: (410) 659-9314

**The Trace Research And Development Center**

The Trace Research and Development Center at the University of Wisconsin has developed a set of “EZ Access Features” that can be built into standard commercially available kiosks and workstations, making them accessible to a wide range of people. The Trace Center works directly with computer companies, software engineers, and government agencies to integrate access features and enhancements into standard devices to make them operable by people who would not otherwise be able to use them. These features are easily activated but do not change the way that the devices look or operate for people who can use them in their standard mode. These features add less than 10% to the cost of each kiosk. EZ Access Features include the following options:

- Talking Touch and Confirm - enables the kiosk to read aloud information on the screen, including graphically-displayed information. Users activate selections by touching a “confirm” button.
- Speed List - provides easy access to information in the form of a vertical list on the touchscreen
- Auto Scan
- hearing aid compatible handsets or a headphone jack
- an infrared link - enables people to use aids that assist them, such as braille devices, in conjunction with the kiosk.

**Contact Person:**

Chris Law  
Trace Research and Development Center  
Phone: (608) 263-8859

**Vermont**

All One-Stops are equipped with adjustable workstations to accommodate people using wheelchairs, Zoom Text (screen magnification and screen reading) for people with low vision, and a TTY and FM Loop for people who are deaf or hard of hearing. The FM Loop enables hard of hearing customers to participate in training with other customers and to engage in one on one counseling with One-Stop or VR staff. One-Stop customers who do not use or cannot access computers can search for Vermont jobs via Vermont’s toll-free telephone system.

**Contact Person:**

Bernie Juskiewicz  
Vermont Department of Employment and Training  
Phone: (802) 888-2540

## Wisconsin

Two different types of accessible workstations have been developed using “off the shelf” technology. The workstations have been available in Madison since 1996. These prototypes will change based upon customer feedback. One type utilizes a touch-screen system and has a 17-inch monitor that can be raised or lowered. People who cannot touch the screen with their hands can use a mouth stick or a trackball.

The other workstation is accessible to people who could not use a touch-screen system, such as people who have low vision or are blind, as well as people who are unable to use their hands. It has a 21-inch monitor that slides forward for better viewing, both a standard keyboard and a large print keyboard, screen magnification software, screen reader software, a speech synthesizer, voice recognition software, and Braille printing.

Both workstations have adjustable furniture and aids that can accommodate wheelchairs. Customers wishing to use these workstations usually meet first with an Accessibility Coordinator, who helps them to determine which workstation would best serve their needs and provides training.

**Contact Person:**

Glenn Olsen  
Department of Workforce Development  
Phone: (608) 264-8164

Additionally, Racine has developed a bilingual, touch-screen kiosk that provides both audio and text versions of the One-Stop Center’s menu of services in both English and Spanish. The kiosk can be used to schedule certain appointments, such as to meet with a career counselor.

**Contact Person:**

Michael Burks  
Racine County Workforce Development Center  
Phone: (414) 638-6440

*The following is an additional example that was not in the USDOL report:*

## New York

A technology sub-committee developed specific recommendations for the One-Stop sites in Herkimer, Madison and Oneida. The recommendations consist of two differently configured accessible workstations for each center. The intent is that between these two work stations, people with a wide range of disabilities will be able to fully use the computerized technology and resources. The recommendations for these work stations contain specific equipment requirements. In addition, the sub-committee developed a list of recommended assistive technology, software, and additional recommendations.

**Contact Person:**

Donna Gillette  
RCIL - Utica  
Phone: (315) 797-4642

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## Low-Cost and No-Cost Accessibility Ideas

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- Set up reception areas and waiting rooms with at least one integrated space for wheelchair users.
- Good lighting benefits most people, but is essential when lip reading or sign language is used. It can also be helpful to individuals with visual impairments.
- Carpeting provides better acoustics and minimizes echoes. Thick-pile carpets however, are hard for users of wheelchairs.
- When choosing a worksite or meeting location, remember that newer construction and recent major renovations usually mean better physical access.
- Many people who are legally blind retain some vision and may benefit from visual input.
- An audible public address system enhances hearing accessibility for everyone.
- When beverages are provided, straws are necessary for people with dexterity, neurological, and other disabilities.
- Doors with lever handles are easier for everyone.
- Signs (black on white) which use symbols are more accessible to people with learning, cognitive and visual disabilities.
- Curb cuts and access ramps are rendered useless if not kept clear of ice and snow.
- During meetings, it is helpful if
  - 1) Speakers wait to be recognized by the chair
  - 2) People speak one at a time
  - 3) Individuals introduce themselves for voice identification.
- Allow time before and after presentations for questions about presented materials.
- Make printed copies of speeches and presentations available ahead of time to allow for taping and interpreter familiarity.
- Do not stand or walk between interpreters and their audience.
- A smoke-free environment is required for people with emphysema, allergies, and other respiratory disabilities.
- Reserved up-front seating can be helpful for some people with hearing and visual disabilities.
- Avoid flashing and flickering lights and loud noises; they can trigger seizure disorders.
- Modular workspaces offer nearly limitless accommodation options and offer the added bonus of future modifications. They are preferable to creating a non-integrated, inflexible “handicapped workstation.”
- Commend and patronize merchants, agencies and professionals who operate barrier-free establishments.
- Black print on white, flat (not glossy) paper, with a combination of upper and lower case letters, provides good visual contrast. Large print is preferable, 14 point or larger, serif style (that is, with “feet “ at the bottom). Avoid colored print or paper for essential information. Use color for a decorative border only.

*Courtesy of Boston Center for Independent Living, Boston, MA*

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# Getting Help in Making One-Stops Accessible

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The following resources can help One-Stop Centers identify equipment, modifications, accommodations, and assistive technology to ensure full access for people with disabilities.

## Local and Regional Resources

### Disability and Business Technical Assistance Centers (DBTACs)

There are 10 federally funded regional DBTACs which provide information to businesses, people with disabilities, and others on accommodation and accessibility issues, as well as other ADA information. A full listing of all DBTACs is contained in the resource section (Section 14) under “Americans with Disabilities Act and Other Legal Information.”

Web site: [www.adata.org/index-dbtac.html](http://www.adata.org/index-dbtac.html)

Voice/TTY: (800) 949-4232 (will connect with your regional DBTAC)

### State Assistive Technology Projects

Each state has a federally funded assistive technology program. Although their information and services vary, they are a good starting point in identifying local assistive technology ideas and resources. Contact information for each state is available by contacting RESNA (see its separate listing below for details):

Voice: (703) 524-6686

TTY: 703/524-6639

email: [resnaTA@resna.org](mailto:resnaTA@resna.org)

Web site for finding state assistive technology projects:

[www.resna.org/taproject/at/statecontacts.html](http://www.resna.org/taproject/at/statecontacts.html)

## National Resources

### ABLEDATA: The National Database of Assistive Technology Information

8401 Colesville Road, Suite 200

Silver Spring, MD 20910-3319

Voice/TTY: (800) 227-0216 or (301) 608-8998

Web site: [www.abledata.com](http://www.abledata.com)

A federally funded project whose mission is to provide information on assistive technology and rehabilitation equipment. This project's web site has a database of 25,000 products and devices; ABLEDATA information specialists also provide in-depth telephone help.

### Access Board

1131 F Street N.W.

Washington, D.C. 20004

Voice: (202) 272-5434 or (800) 872-2253

TDD: (800) 993-2822

Web site: [www.access-board.gov](http://www.access-board.gov)

The U.S. Access Board (or Architectural and Transportation Barriers Compliance Board) is the federal agency that develops minimum standards under the Americans with Disabilities Act (ADA) and other federal regulations. The Board offers technical assistance on the ADA Accessibility Guidelines (ADAAG) and has a number of publications available, as well as a listing of state contacts who can give information on state codes.

Alliance for Technology Access  
2175 East Francisco Boulevard, Suite L  
San Rafael, CA 94901  
Voice: (800) 455-7970 or (415) 455-4575  
TTY: (415) 455-0491  
E-mail: [atainfo@ataccess.org](mailto:atainfo@ataccess.org)  
Web site: [www.ataccess.org](http://www.ataccess.org)

ATA is dedicated to increasing the use of standard, assistive, and information technologies for people with disabilities. Has a variety of resources, including a resource library, to assist in identifying appropriate technology. Publisher of "Computer and Web Resources for People with Disabilities," a comprehensive guide.

Apple Computer Inc., Worldwide Disability Solutions Group (WDSG)  
Apple Technologies  
1 Infinite Loop  
Cupertino, CA 95014  
Voice: (800) 776-2333  
Web site: [www.apple.com/education/k12/disability](http://www.apple.com/education/k12/disability)

The Worldwide Disability Solutions Group works with key education, rehabilitation, and advocacy organizations nationwide to identify the computer-related needs of individuals with disabilities and to help develop responsive programs. WDSG is involved with Apple's research and development to ensure that Apple computers have built-in accessibility features. The web site contains information on making Apple computers fully accessible for people with disabilities, including shareware and freeware that can be downloaded.

[assistivetech.net](http://assistivetech.net)  
Center for Rehabilitation Technology  
College of Architecture  
Georgia Institute of Technology  
490 10th Street, NW  
Atlanta, GA 30332-0156  
Voice/TTY: (404) 894-4960  
Web site: [www.assistivetech.net](http://www.assistivetech.net)

An online information resource providing up-to-date information on assistive technologies, adaptive environments and community resources. Has a comprehensive listing of assistive technology, and also information specialists available to assist with questions about assistive technology.

IBM Accessibility Center  
IBM Corporation  
1133 Westchester Avenue  
White Plains, New York 10604  
Voice: (800) 426-4832  
TDD:(800) 426-4833  
E-mail: [snsinfo@us.ibm.com](mailto:snsinfo@us.ibm.com)  
Web site: <http://www-3.ibm.com/able>

Finds products and solutions so that people with disabilities can fully access and utilize information technology. Web site contains extensive checklists, product listings and technical assistance information.

Job Accommodation Network (JAN)  
West Virginia University  
P.O. Box 6080  
Morgantown, West Virginia 26506-6080  
Accommodation Information (Voice / TTY):  
(800) 526-7234  
ADA Information (Voice / TTY):  
(800) 232-9675  
Fax: (304) 293-5407  
E-mail: [jan@icdi.wvu.edu](mailto:jan@icdi.wvu.edu)  
Web site: <http://janweb.icdi.wvu.edu>

Federally-funded free information and consultation service on job accommodations and related information. JAN's web site has a searchable online database (SOAR) which can be used to research accommodation options. JAN also has consultants available by phone, who can assist in identifying possible accommodations. These consultants have instant access to the most comprehensive and up-to-date information about accommodation methods, devices, and strategies. While intended to focus on job accommodations, JAN consultants can also be helpful to One-Stop Centers in ensuring accessibility for people with disabilities.

RESNA (Rehabilitation Engineering and Assistive Technology Society of North America)  
1700 N. Moore Street, Suite 1540  
Arlington, VA 22209-1903  
Voice: (703) 524-6686  
TTY: (703) 524-6639  
E-mail: [natloffice@resna.org](mailto:natloffice@resna.org)  
Web site: [www.resna.org](http://www.resna.org)

A membership organization of people who are interested in how technology can help people with disabilities achieve their goals. RESNA has a variety of publications and resources. Web site includes a list of assistive technology professionals by state.

TechKnowledge  
Tech Connections  
490 Tenth St. NW  
Atlanta, GA 30318  
Voice/TTY: (877) TEK-SEEK (877-835-7335)  
Web site: [www.techconnections.org](http://www.techconnections.org)  
E-mail: [techconnections@crt.gatech.edu](mailto:techconnections@crt.gatech.edu)

Tech Connections is a national dissemination project designed to increase the utilization of existing and emerging assistive technology. Web site contains variety of information and resources. Information and referral specialists are available to answer questions at no charge. Also has a monthly newsletter.

Trace Research & Development Center  
S-151 Waisman Center, 1500 Highland Ave.  
University of Wisconsin-Madison  
Madison, WI 53705-2280  
Voice: (608) 262-6966  
TTY: (608) 262-5408 (TTY)  
E-mail: [info@trace.wisc.edu](mailto:info@trace.wisc.edu)  
Web site: <http://trace.wisc.edu>

Engineers technological access solutions, and has a variety of information and resources on assistive technology.

Virtual Assistive Technology Center  
Web site: [www.at-center.com](http://www.at-center.com)

The purpose of the VATC is to put computers within reach of individuals with disabilities. The web site contains a variety of freeware and shareware that can be downloaded to help people with disabilities use computers. The web site also contains information, publications, a message board, and links to related web sites. VATC also publishes a newsletter on assistive technology.

*Additional resources on accommodations are in the resource section of this manual under "Accommodations & Assistive Technology."*