Making Voting More Accessible for Veterans with Disabilities

July 24, 2012

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Preface

In 2010, the Information Technology and Innovation Foundation (ITIF), in partnership with the Georgia Tech Research Institute and the Operation BRAVO Foundation, received a grant from the U.S. Election Assistance Commission (EAC) to determine the voting needs of recently injured military personnel and recommend practical and efficient ways to improve voting technologies and election administration practices to assist them in voting. Shortly thereafter, the Federal Voting Assistance Program (FVAP) in the Department of Defense initiated a series of studies to assess voter registration and absentee voting problems among recently injured active duty personnel. To avoid duplication with FVAP's efforts, ITIF's research has focused on recently disabled military personnel with civilian status (i.e., veterans with disabilities from Iraq and Afghanistan). However, many of the findings from this research will apply to injured active duty military personnel and veterans from previous conflicts.

Introduction

The number of veterans with disabilities continues to grow as a result of the War on Terrorism. Although voting accessibility has improved since the Help America Vote Act (HAVA), voters with disabilities still face barriers to voting privately and independently. Compared to people without disabilities, people with disabilities are more likely to report having a voter registration problem, experiencing difficulty with voting equipment, and needing help to vote.[1] Since many veterans from Iraq and Afghanistan have different types and severities of injury and disability than other civilians in the general population, the range of accommodations they need to participate in elections also differs.

Election officials can better serve these voters if they understand the barriers to voting faced by veterans with disabilities and the opportunities that exist to make the electoral process more accessible. All citizens, with or without a disability, should be assured they are able to vote privately, securely, and independently.

What disabilities affect recently injured service members?

As of July 2012, over 49,000 men and women have been wounded in military service in the conflicts in Iraq and Afghanistan. Due to the nature of the military environment, particularly in hostile, deployed settings, military personnel experience a range of injuries that differ from those typically found in the general population. This is especially true in Iraq and Afghanistan where the use of improvised explosive devices (IEDs) by insurgent forces is widespread. As a result, over 80 percent of all combat-related injuries were due to explosions. This has led to a distinct injury profile for military personnel and veterans.

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The "signature injury" of troops returning from Iraq and Afghanistan is traumatic brain injury (TBI). TBI can affect cognitive functioning and independence, change sensations such as hearing, smell, taste, touch, or sensitivity, and trigger emotional and social issues including depression, aggression, lack of energy, and avoidance of crowded places. Although TBI is also found in the general population, research suggests that TBI as the result

of a blast or explosion differs from TBI as a result of impact (such as a vehicle accident). Other common injuries include polytrauma—traumatic injury to multiple parts of the body, which often results in mobility impairments or amputation of limbs—and visual and hearing impairments, including sensitivity to light, tinnitus and hearing loss, especially as a result of explosions.

Post-traumatic stress disorder (PTSD) has also significantly affected military personnel returning from Iraq and Afghanistan, including many service members who exhibit some symptoms of PTSD but do not receive a PTSD diagnosis. PTSD shares many symptoms with TBI including cognitive changes, such as having difficulty remembering to do important things or concentrating on something for an extended period of time, and psychhanges, such as depression, anxiety, panic attacks, agoraphobia, irritability, and a lack of motivation

What are the challenges in helping recently injured service members vote?

Recently injured service members are likely to experience at least some degree of difficulty performing activities associated with voting. In general, veterans with disabilities face many of the same barriers to voting as other voters with disabilities, including

1. **Inaccessible polling places.** Veterans who vote in community polling places may encounter inaccessible physical spaces. The Government Accountability Office reported in 2008 that only 27% of polling places were fully accessible.[2]

2. **Ballot design**. Issues with ballot design include the legibility and the size of the text, small ovals on optical scan ballots, overly complex ballot design, and confusing instructions.

3. **Voting technologies.** Although there has been progress since the 2000 federal elections, the technologies used to display and mark ballots need further improvement. For example, veterans with prosthetic hands or arms may have difficulty using a touchscreen, using a pencil or stylus for marking a ballot, marking small targets such as the typical ovals on optical scan ballots, and handling election materials and ballots.
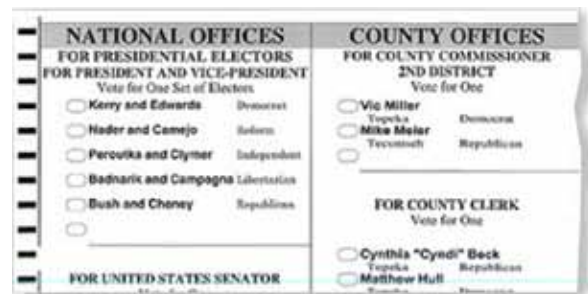
The typical paper-and-pencil absentee ballot is an especially inaccessible means of voting for many veterans with disabilities.

As shown in Table 1, the specific injuries typical of this group, especially TBI and PTSD, can cause difficulty with many of the activities associated with voting. Interviews with patients at medical treatment facilities revealed multiple and overlapping physical, emotional, and social issues that can cause them to experience difficulties in completing the many tasks associated with voting. Challenges included confusing ballots, mobility limitations, a lack of motivation, difficulty with memory and concentration, and an aversion to crowds.

In addition to dealing with the functional limitations caused by their disabilities, these veterans face two further challenges in attempting to vote. First, they have become disabled fairly recently and many are still in the process of adapting to life-changing trauma and learning to use personal assistive technologies. For example, they may not yet be expert users of assistive technologies such as screen readers or sip-and-puff devices that would help them interact with electronic voting systems.

*Accommodations provided by the states have not always been designed with the **unique needs** of veterans in mind.*

Second, many are undergoing medical treatment and rehabilitation in facilities away from their place of residence; thus they are separated from their families and support networks, and must vote absentee, following the same procedures as other civilians. To do this, they must navigate a complex and varied set of state requirements to request, receive, mark, and return their ballot. Individuals with disabilities may also have difficulty voting at a polling place, but the typical paper-and-pencil absentee ballot is an especially inaccessible means of voting for many veterans with disabilities.

What assistance is available?

Active duty service members receive assistance in voting from military and federal programs. The Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) of 1986 requires states to allow active duty service members to vote by absentee ballot in federal elections, and the Military and Overseas Voter Empowerment (MOVE) Act of 2009 requires states to support military voters with electronic systems to obtain voter registration and absentee ballot request forms and have their absentee ballots delivered. In addition, Voting Assistance Officers are available to assist military personnel with voter registration, requesting and submitting an absentee ballot, and answering questions about the voting process.

Once service members have been discharged, they are no longer eligible for the voting assistance they had access to when they were on active duty. Instead, they must follow the same voting procedures as the general civilian

Table 1: How disabilities common among veterans can affect the ability to vote

Voters with these impairments...	...caused by these injuries...	...may experience difficulty with these voting tasks
Loss of visual acuity, including blindness	Traumatic brain injury	Reading, marking and verifying the ballot Reading instructions for completing the ballot
Sensitivity to light	Traumatic brain injury	Reading an electronic display that emits light Reading a bright white paper ballot
Hearing loss or tinnitus	Traumatic brain injury	Hearing auditory cues (such as beeps) on a voting system Hearing speech output from a device or talking to a poll worker or voting assistance officer
Difficulty concentrating	Traumatic brain injury, post-traumatic stress disorder	Maintaining focus on the voting process Ignoring distracting stimuli Keeping track of progress Completing the ballot in a potentially limited amount of time Paying attention to and comprehending instructions
Memory problems	Traumatic brain injury, post-traumatic stress disorder	Remembering to vote Remembering and comprehending the instructions for completing the ballot Recognizing the names of candidates or other ballot options Understanding long passages of text Keeping track of progress Completing the ballot in a limited amount of time
Learning new tasks	Traumatic brain injury	Learning how to use new voting technology For first time voters, learning about the voting process Assembling the components of an absentee ballot
Loss of dexterity and fine motor control; loss of sensation	Upper body injuries, spinal cord injuries, traumatic brain injury	Grasping and manipulating a tool for marking a ballot (e.g., a pencil or stylus) Selecting or marking a small target (e.g., filling in a small oval) Handling voting materials such as paper ballots, other voting paperwork, and security and mailing envelopes
Amputation requiring the use of a prosthetic hand or arm	Upper body injuries, spinal cord injuries	Using a touchscreen (depending on the type of touchscreen) Grasping and manipulating a tool for marking a ballot (e.g., a pencil or stylus) Selecting or marking a small target (e.g., filling in a small oval) Handling voting materials such as paper ballots, other voting paperwork, and security and mailing envelopes
Loss of mobility requiring the use of a wheelchair	Lower body injuries, spinal cord injuries, traumatic brain injury	Reaching an installed device (e.g., a voting kiosk)
Pain or limits in endurance	Upper body injuries, lower body injuries, spinal cord injuries, traumatic brain injury	Concentrating on the voting process Grasping and manipulating a tool for marking a ballot (e.g., a pencil or stylus) Completing lengthy ballots

population, although many states provide special accommodations for voters with disabilities. Successfully participating in elections requires that voters have access to accommodations matching their disabilities; however, the accommodations provided by the states have not always been designed with the unique needs of veterans in mind.

How well do state and local election practices help veterans with disabilities vote?

A national survey of election accessibility practices found many differences among states, except where there is a federal mandate. Of the forty-seven states and territories responding to the survey

☑ All reported having fully accessible polling places or ADA-compliant alternatives, such as curbside voting.

☑ All, except Guam and Puerto Rico, reported making available at least one accessible voting device at every polling place.

☑ All, except Puerto Rico, reported allowing personal assistance for filling in voter registration forms, marking ballots, and returning absentee ballots.

☑ Thirty reported providing supervised voting in group-living facilities, such as hospitals, assisted living centers and nursing homes.

All states allow absentee voting, although the practices vary. Some states provide "no excuse" absentee voting, where any voter can vote absentee, while others require a reason for absentee voting. In all states that require a reason

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to vote absentee, having a disability is an acceptable reason, although the definition of disability and the requirements for requesting an absentee ballot vary by state. Some states offer a permanent absentee voting list, so that voters who sign up automatically receive an absentee ballot for all future elections. Other states allow voters to send in a single request for an absentee ballot for all elections in a given year. Still other states require a separate absentee ballot request for each election. In these states, for example, a voter would be required to submit a separate request for the primary and general election.

As shown in Table 2, many states responding to the survey employ a variety of best practices to make elections more

accessible for people with disabilities, such as providing voter registration and absentee voting forms online. Increasingly states are also allowing voters to complete and return these forms electronically. This is an important development because it allows veterans to use the technology they are familiar with, such as mobile phones and tablets, to more easily complete these forms.

Approximately half of the states reported working directly with the VA facilities either for voter education or to provide election materials and assistance to voters. While most activities to support voters making the transition from military service to civilian life are local, rather than state level, Indiana reported a notable example of a special project for military voters. Indiana's state election office works with the U.S. Army's Warrior Transition Units to ensure that injured service members preparing to transition from military service to civilian life have current information about voting. Warrior Transition Units provide support to wounded soldiers who require at least six months of rehabilitative care and complex medical management.

Table 2: States and territories reporting use of Internet to deliver election materials

Election activity	Number providing online	Number allowing electronic submission
Voter registration form	41	9
Absentee ballot request	39	15
Blank or sample ballots	8	n/a

Other examples of state and local programs to address the needs of voters with disabilities include

☑ Voter information guides provided in multiple formats, including electronically, and in multiple languages (California).

☑ Online training videos for poll managers on how to serve voters with disabilities (South Carolina).

☑ Online photos of every voting location to show voters with disabilities the best way to access a facility (North Carolina).

☑ Information for voters with disabilities sent by mail to individuals who have registered with the Department of Revenue as drivers with disabilities (Missouri).

☑ A pilot project using iPads and portable printers to provide supervised voting in nursing homes, community centers and other locations (Oregon).

In every state, local election officials have considerable autonomy in determining how best to carry out their duties, given the culture and demographics of their communities and available resources. Many election officials work directly with voters with disabilities and advocacy groups on outreach, training and web materials.

Army Pfc. Kevin Trimble, 19, adjusts his myoelectric upper limb prosthetic for occupational therapy at the Center for the Intrepid at Brooke Army Medical Center in San Antonio, Texas.

How can voting be made more accessible for veterans with disabilities in treatment facilities?

As one of the effects of the War on Terrorism, thousands of injured service members and veterans are in recovery and rehabilitative centers in the United States where they face barriers that prevent them from voting privately and independently. Many of these individuals are newly disabled, with little or no experience with assistive technologies and are still learning how to function in their changed circumstances.

One way to provide a more accessible voting experience for these individuals would be to provide an accessible absentee voting system for use within the treatment facilities. This would be an extension of the supervised voting in group living facilities that many states have successfully implemented. Voters would use a tablet computer, such as an iPad, as a portable absentee voting system, to obtain a ballot, mark it electronically in an accessible way, and "cast" the ballot (e.g., by printing it out and mailing it, or whatever other process policy requires them to follow).

Although many injured veterans are in treatment facilities that are generally accessible, they can still face mobility issues in using equipment in a voting center within that facility. A "voting facilitator" familiar with the use of the absentee voting system would either bring the device to the voter's hospital room, or be available to assist in a "voting room" within the facility. The voter should be able to mark the ballot independently, but the voting facilitator may set up the system for the voter, assist with problems during voting, and help with submitting the ballot (printing, physical handling of the ballot, etc.).

The system itself must be flexible enough for use in a variety of ways. This will require

- ☑ **Portability.** This will allow for maximum flexibility in setting up voting rooms, or in bringing the system to voters. Portability is particularly beneficial for users with mobility issues or anxieties related to social situations, because it would allow them to vote from a location where they are physically or psychologically comfortable.

- ☑ **Flexible mounting.** The system must support a variety of physical arrangements, including a portable stand for use from a bed or chair, or set-up as a kiosk.

- ☑ **Options for controls.** The system should have an accessible touchscreen, a headset jack for private use of audio, and a way to wirelessly connect external controls such as a keyboard, mouse or a variety of switches. Additional features such as speech input or eye-tracking input could also be added.

The ballot interface should also be designed for a variety of disabilities by incorporating the following features

- ☑ **Sparse, consistent layout.** Only essential information should be displayed on ballot pages, to reduce clutter and focus attention on the most important elements on the page. The layout should be consistent from page to page.

- ☑ **Readable text.** The smallest text should be approximately 14 points, with voters able to increase or decrease the text size, and to select from a range of color schemes and contrast including an overall dim presentation for users who are sensitive to light.

- ☑ **Simple, linear presentation.** The ballot should be organized to present one contest per page, with all the information and options for a contest presented on a single page.

- ☑ **Flexible controls.** Controls should be large, to facilitate touchscreen use and reduce selection errors, particularly for users with dexterity and fine motor control issues. The ballot should be compatible with a variety of control inputs from touchscreen to keyboard and button switch controls with a consistent user interface.

- ☑ **Context-sensitive help.** The system should provide help relevant to the current step in the process (for example, on a write-in screen).

- ☑ **Voice output.** The system should provide a simple voice output system that is easy to operate for a novice user with little to no screen reader experience.

- ☑ **Summary/review page.** Before a ballot is submitted, a summary/review page should be displayed. All of the user's selections for the entire ballot should be displayed for review. Notifications of potential errors (such as undervoted contests) should also be displayed. From this page, the user should be able to return directly to previous ballot pages to make changes or corrections, and then return directly to the summary page.

- ☑ **Save and resume.** Concentration issues and fatigue are major considerations for many individuals in treatment facilities. Because ballots can be long and involved and take an extended period of time to complete, the system should enable users to save an in-progress ballot and return to it later, after a period of rest.

What technologies can help remove barriers to voting?

An analysis of current voting systems for people with disabilities reveals many issues, from inaccurate speech output to confusing ways of interacting with the ballot. Many systems have poor instructions and feedback to the voter, and inconsistent navigation controls that make them difficult to use. More importantly, many voting systems do not take advantage of the latest advances in assistive technology such as switches, speech recognition software, sip-and-puff controls, and head pointers that would enable more individuals to vote privately and independently.

Many of these technologies, such as screen readers and speech recognition software, have become much more advanced in recent years and are now increasingly available on consumer products such as tablet PCs and mobile devices. These technologies allow for the creation of voting systems with a more universal design that is accessible to everyone, including veterans with disabilities. As emerging technologies such as digital pens, head tracking software, and eye tracking software continue to improve and provide more viable solutions, election officials should look for voting systems that incorporate the latest innovations to better meet the needs of voters.

Associated Press / Rick Bowmer
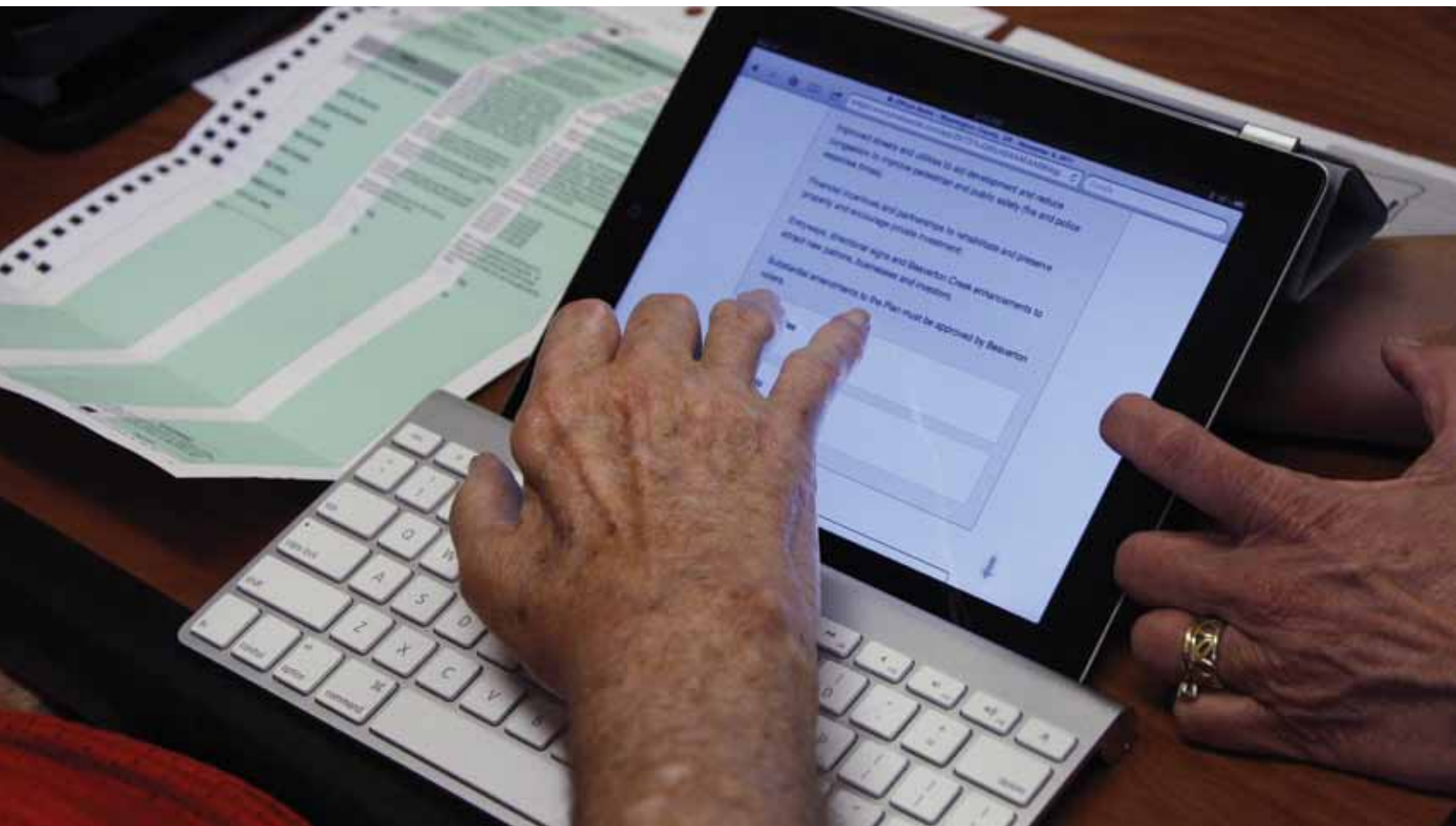
State and local election officials should continue to pilot and implement
innovative technology *that makes voting*
more accessible, convenient and secure for all voters.

What policy changes can help make voting more accessible for veterans with disabilities?

Consideration must be given to not only the technologies, but also the process by which voting occurs. Advancements in voting technology alone will not impact voting without careful contemplation of the policies, processes, and support services that are the underpinnings of how individuals place their votes.

With that in mind, the following changes to election administration practices and policies would also improve the voting process

☑ **Coordinate voting assistance services with VA facilities.** Voting assistance could be provided more extensively to Department of Veterans Affairs (VA) facilities. State and local election officials should develop uniform statewide procedures for providing assistance in VA residential and community-based facilities for voter registration and absentee voting. Election officials should prepare and conduct training for VA staff and volunteers who are designated to provide voter assistance.

☑ **Make accessible voting information available.** Many service members with disabilities are not aware of the various ways in which they can access voter registration and absentee ballot forms. Injured military personnel transitioning from active duty to civilian life should be provided current information about voting and voter registration. States can help by making available online better and more consistent information about accessible voting options, including sample ballots, graphical and text-based instructions for all forms and ballots, and a webpage for voters with disabilities.

☑ **Streamline the process for obtaining absentee ballots**. VA hospitals and other residential facilities may house veterans from multiple states and local jurisdictions. Information should be readily available to all veterans, caregivers, VA staff and volunteers to increase familiarity with the absentee voting process. Regular reminders in the months leading up to an election would be helpful for those veterans who experience difficulty remembering to do things.

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☑ **Relax local ballot design requirements.** State or local laws often prescribe ballot design in undesirable ways (cluttered layout, all-caps text, etc.). These ballot design requirements should be relaxed in order for more accessible solutions to be implemented.

☑ **Make ballot data available in electronic format.** In order for proposed solutions, such as an accessible absentee voting system, to have maximum impact, the ballot must be able to be displayed in a variety of ways based on the needs of each individual voter. A number of proposals for storing ballot data in a standard format exist.

☑ **Pursue innovative technology.** State programs for military, overseas and disabled civilian voters can also support veterans with disabilities. For example, online voter registration forms and absentee ballots can be completed at the voter's convenience and in an accessible format. State and local election officials should continue to pilot and implement innovative technology that makes voting more accessible, convenient and secure for all voters.

Endnotes

1. Hall, T.E. and Alvarez, R.M. (2012). Defining the barriers to political participation for individuals with disabilities (Working Paper #001). http://elections.itif.org/reports/AVTI-001-Hall-Alvarez-2012.pdf.

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