Accessibility & the PCEA report: Thoughts and Perspectives on AVTI Research

A NIST/EAC Sponsored Accessible Voting Technology Initiative Webinar

May 22, 2014, 1:30 – 3:00 PM ET

Operator: Ladies and gentlemen, thank you for standing by and welcome to the AVT webinar.

During the presentation, all participants will be in a listen-only mode. Afterwards, we will conduct a question and answer session. At that time if you have a question, please press the 1 followed by the 4 on your telephone.

You may also use the chat feature located in the lower left corner of your screen. If you need to reach an operator at any time, please press Star-0. As a reminder, this conference is being recorded, Thursday, May 22, 2014.

And I would now like to turn the conference over to Shaneé Dawkins at NIST. Please go ahead.

Shaneé Dawkins: Hi. Thank you, (Lena).

Hi everyone and welcome to the webinar hosted by the Election Assistance Commission and the National Institute of Standards and Technology. This Accessibility and the President's Commission on Election Administration Report: Thoughts and Perspectives on the Accessible Voting Technology Initiative Research.

This webinar will discuss the impact of research on the findings of the report and how the results of the research can be applied to the upcoming election.

Let me skip ahead to the next slide here.

We will go for approximately and hour and a half. If you have any questions you can ask them at the end or type them in the chat box.

All right. So, we'll start with Pat Leahy who is the Senior Advisor at EAC, Lisa Schur from Rutgers University will do the first presentation, Diane Golden from ATAP, and finally we'll end with Jim Dickson at NCIL. And we'll have any questions and closing remarks by me.

So, Pat, if you would like to go ahead.

Pat Leahy: Sure.

Thanks, Shaneé.

Hi, everybody. It's Pat Leahy. I'm over at the Election Assistance Commission. And I've been lucky enough to have kind of a front row perspective on this grant project for the past couple of years and help design the project and then get the funding notice out the door and attract some great grant recipients. And they've done a fantastic job.

So I just wanted to briefly run by two slides.

The first one here is simply laying out the structure of the grant program.

Congress appropriated $8 million back in 2009. We decided to kind of separate it up a little bit.

One grant that is completed is called Military Heroes Initiative -- which helped identify better voting practices for wounded warriors and veterans with disabilities.

And then when you look at this initiative -- Accessible Voting Technology Initiative -- we took $7 million and kind of put it in that area. The $2.5 million went to ITIF, $4.5 million went to Clemson University and their research partners. Both have done an outstanding job and, you know, we're excited to highlight some of their efforts today.

And then on today, just a couple of brief points.

When we set out to do this we really wanted to look at research and development -- so not just the research part, but also looking at development. And we had a press conference last week where they highlighted some of the efforts in joysticks and iPad components and things like that. So it's been exciting to see the development side as well. We really want to promote the results of this grant so that people know what we've done and so they can also make it into the pipeline for machines.

And then when you look at this Presidential Commission on Election Administration -- if you've had the chance to read it -- there are definitely parts of it that's focusing on accessibility. They do focus a bit more, I would say, on polling place accessibility -- which is great. But they do look at kind of this overall concept of universal design and how the accessibility should be built in and baked in from the front.

So I just pulled out this quote here to finish with and to kind of encompass where the commission came from and kind of what they achieved with their research. This idea that, you know, at the bottom line really need to look at accessibility at all stages.

So thanks for dialing in today. Looking forward to a active discussion. And we will, I'm sure, be in touch here on the Q&A session.

Thanks, Shaneé

Shaneé Dawkins: Great. Thanks, Pat.

And before I move on to Lisa, I forgot to read Pat's bio so I'll read it now.

Pat Leahy's career encompasses service under the Members of Congress, a Cabinet Secretary, and currently the U.S. Election Assistance Commission. He serves as a Senior Advisor at the EAC where he leads policy initiatives and outreach efforts.

Academically, he graduated with honors from Millersville University in '97, with majors in both Political Science and History. He is also a future MBA student.

During his free time, Pat enjoys helping our nations wounded warriors, amateur bodybuilding, swimming, reading, and being an avid baseball fan.

Additionally, he has a guide dog named Galahad -- who is a 6-year-old yellow lab.

Pat Leahy: And Galahad is sleeping in my foot right now.

Shaneé Dawkins: Okay.

Up next we have Lisa Schur. Lisa is an Associate Professor in the Department of Labor Studies and Employment Relations at Rutgers University, where she teaches employment and labor law. She received a Ph.D. in Political Science from the University of California-Berkeley and a J.D. from Northeastern University.

Her research focuses on disability, employment, and political participation, particularly workplace experiences and outcomes for employee with disabilities and voter turnout among people with disabilities.

She co-authored a book, "People with Disabilities: Sidelined or Mainstreamed?" published by Cambridge University Press in 2013.

She had coordinated three national surveys on disability and voter turnout following presidential elections. She wrote a whitepaper on disability and voting for the - disability and voting for the Presidential Commission on Election Administration and testified before the Commission. She also serves on the Editorial Board of the Disability Studies quarterly.

Lisa?

Lisa Schur: Thanks. Thanks so much for inviting me. I'm really glad that I can participate in this.

I'm going to go over recent evidence on disability and voting including results of our national household survey on voting experiences in the 2012 elections. And this is reported by people both with and without disabilities. And in

addition, I'll briefly talk about some best practices to address voting difficulties.

So, to give some context, there're at least 35 million voting-age people with disabilities from the U.S., and that represents one out of seven people of voting age. The number and proportion are going - growing with the aging of the population and almost everybody will have an activity limiting disability at some point in their life. So, improvements to accessibility will have broad benefits.

My colleagues and I had done a lot of research on disability and voter turnout -- it's over 15 years now -- and the findings are always that people with disabilities have lower levels of turnout compared to people without disabilities. Thirteen surveys have found this -- and this is from 1992 through 2012. In 2012 the turnout gap was 5.7 percentage points.

Protocol scientists look at three main factors that affect voting. One is resources -- such as education and income. The second is recruitment -- did anybody ask you to vote. And the third is psychological feelings of political efficacy. So these help explain the disability gap, but they don't completely do this. There's still this unexplained gap.

Inaccessible polling places may play a role here. Obviously they make voting more difficult and they also send a message that people with disabilities are not welcome in the political sphere.

The Government Accountability Office found that most polling places have potential impediments to voting for people with disabilities. In 2000 only 16% did not have impediments. That improved somewhat to 27% in 2008.

Using a different approach, my colleagues and I coordinated a national household survey after the 2012 elections. In this survey we contacted representative samples of people with and without disabilities to look at their voting experiences.

And the survey included 3022 people in total. We oversamples people with disabilities so that they made up 2000 of the respondents and people without disabilities made up the remaining 1022.

We oversamples people with disabilities because we wanted to get clearer understanding of their experiences and we also wanted to make comparisons among people with different types of disability. And we have good representation of people with different kinds of impairments -- including hearing, visual, cognitive, and mobility -- and we provided breakdowns on this in our full report.

We use basic voting questions and disability measures from the Centers Bureau and we supplemented these by questions on voting difficulties and voting predictors used in other surveys.

So, among people who voted at a polling place, we asked a series of questions and they started with, "When you voted in a polling place, did you have any difficulty in dot, dot, dot?"

And this slide reports the basic results. Overall, almost a-third -- 30% -- of voters with disabilities said that they experienced one or more difficulties. And that's compared to 8% of people without disabilities.

People with disabilities were more likely to experience each type of difficulty that we asked about. So the most common one was reading or seeing the

ballot. It was 12% of people with disabilities. The next most common was understanding how to vote or use the voting equipment, 10% of people with disabilities. And that was followed by difficulty waiting in line, 8% of people with disabilities.

Now, of course you may already be thinking, this does reflect voters in polling places and some people may not have voted at a polling place because it would be too difficult. I want to come back to that in just a minute. But before that I want to just say a little more about the experiences of people who did vote at a polling place.

For people who reported difficulties we asked them to describe their difficulties in their own words and then we recorded them verbatim.

And this slide shows examples of some of the most common responses. Among people who said they had difficulty finding or getting to the polling place, common problems were that it was hard to get a ride, the polling place was not well marked or the polling place had moved.

Among people who said they had difficulty getting into the polling place, most common problems were that they were steps or that there was a long walking distance. And among those who said they had difficulty operating the voting machine, some of the problems were that it was hard to pull the handle, it was hard to see, the machine was too high -- such as for someone in a wheelchair -- the machine malfunctioned, and the voter didn't know how to operate the machine.

So we asked about the use of accessible voting technology and we found that 7% of voters with disabilities had used some type of extra device to help them

vote. I'm not going to go into the results here, but the data are available for those who are interested.

So we wanted to know not just about physical problems, but also about whether voters felt that they were treated respectfully. And we're glad to report that the large majority of voters felt that election officials were very respectful towards them. And there was no difference between voters with and without disabilities. Only 3% of each groups said that they were treated disrespectfully.

After all the detailed questions we asked a summary question on the overall ease or difficulty in voting at a polling place. Exactly three-quarters of people with disabilities said it was very easy -- which is a good result. But two concerns are that this figure was lower than for voters without disabilities and that 6% of voters with disabilities said that it was somewhat or very difficult to vote -- which is larger than the 2% of voters without disabilities who said this.

Now, you look at the 6% figure and it may not look large, but given the size of the disability population, this represents over 1.5 million people. And as I said before the disability population is growing so that is a cause for concern.

So far we focused on voting at a polling place, and of course it's possible to avoid difficulties here by voting by mail. This slide shows that among voters in 2012, over one-quarter of voters with disabilities voted by mail and that compared to 1/6 of voters without disabilities.

Now, voting by mail does not solve all the voting difficulties because ballots they can still be hard to read, understand, and fill out. Among those who voted

by mail 13% of voters with disabilities said that they had difficulty reading or filling out the ballot and 11% said that they needed assistance.

Among people who did not vote at a polling place in 2012 -- either because they voted by mail or they didn't vote at all -- we asked whether - when they had last voted at a polling place. Those who did so in the past ten years reported very similar experiences to those who voted in a polling place in 2012.

Now, for people who had not voted in a polling place in the past ten years we asked a hypothetical question in order to measure expectations. Forty percent of people with disabilities said they would expect to encounter some type of difficulty if they wanted to vote in a polling place, and that's compared to 1% of people without disabilities.

Finally, we asked everybody -- both voters and nonvoters -- "If you wanted to vote in the next election, how would you prefer to cast your vote?"

Now here is - striking finding is that a majority of people with and without disabilities prefer to vote at a polling place. This suggests that there's a powerful meaning and a symbolic importance in being able to vote in person at a polling place. At the same time, people with disabilities are less likely than those without to prefer voting at a polling place or in the Internet and are more likely to prefer voting by mail.

So what are potential solutions to the voting problems and difficulties experienced by people with disabilities? What are some of the best practices that are currently being used and may serve as models that can be used more widely?

In the whitepaper I identified five categories of best practices. And, again, I'm just going to go through this quickly, there's more detailed information in the whitepaper.

The first category is increase - efforts to increase accessibility of polling places and voting equipment. And many states have taken steps to monitor accessibility and correct problems, often with HAVA funding.

Direct involvement of disability groups and organizations helps ensure that effective technologies and practices are being developed and implemented. For example, people with disabilities are doing usability tests and assessing potential locations or polling places.

The second category of potential solutions is that some jurisdictions have had success with mobile voting where ballots or voting equipment are brought to more convenient locations -- such as shopping malls and accessible bus routes or long term care facilities. Mobile voting helps voters to find it hard to get to conventional polling places.

Third, are number of states who provided disability training for election officials and poll workers. And methods include videos, conferences, programs on accessibility issues.

A Missouri study examined different training programs and found that the most effective included interactive methods instead of just using lectures, and that poll workers function best if they were given checklists and visual aids to use on Election Day at the polling site.

Fourth, several states have provided outreach and education for people with disabilities on voting issues and they've done this through videos, audio files,

booklets, PSA's, educational events. And this is often done in partnership with disability organizations.

So the final category of best practices concern is voting by mail. As I said earlier, people with disabilities have a higher rate of voting by mail. And we found that people with disabilities are especially likely to vote in states where everybody votes by mail -- in other words, Oregon and Washington -- and in states with no excuse mail ballots -- where you can get a mail ballot without having to declare that you have a disability-- the turnout among people with disabilities is lower in the 21 states that require an excuse when you ask for a mail ballot. That indicates that some people are reluctant to disclose they have a disability on the public forum or they don't self-identify as having a disability.

The evidence also indicates that turnout is higher among people with disabilities in states where you can ask for a permanent no excuse mail ballot as opposed to a temporary one that has to be renewed for each election.

Okay. So, to conclude, people with disabilities continue to have lower turnout and are more likely to report difficulties voting on a polling place. However, many jurisdictions have successfully implemented practices that help remove voting obstacles and make elections more fully accessible. Now, this may serve as models that should be implemented more widely.

You can find more detail and information in these two documents. A report on voter turnout and voting difficulties and the whitepaper I wrote for the Commission.

And I want to thank you again and I'm very happy to hear your comments and questions on this.

That's it.

Shaneé Dawkins: Okay. Thank you, Lisa.

Right now I don't see any questions in the chat box so...

((Crosstalk))

Lisa Schur: Okay.

Shaneé Dawkins: ...someone will have questions for you at the end.

So now we'll go on.

Up next is Diane Golden. Dr. Diane Golden has over 35 years of experience working in the disability education, assistive and accessible technology field at a local, state, and national level. She served on both Federal Access Board Committees providing recommendations for the Section 508 information technology accessibility standards.

She has provided testimony for Congressional hearings on issues surrounding accessible voting equipment and is a frequent presenter on accessible voting systems.

Dr. Golden currently serves on the Technical Guidelines Development Committee established by HAVA and conducted research as part of the Research Alliance for Accessible Voting, an EAC funded grant.

She holds a Ph.D. in Special Education Administration with an emphasis in Disability Policy and is currently employed by the Association of Assistive Technology Act Programs.

Diane?

Diane Golden: Thank you.

If I'd known you were going to read that I would have made it a whole lot shorter. Sorry about that, folks.

Shaneé Dawkins: No, it’s okay.

Diane Golden: Wow.

So, I appreciate being offered the opportunity to provide this information and hopefully all will find it interesting and if you have questions at the end please feel free to ask.

Now if I can get the slides to move. Look at that.

Just a bit of background on the Association of Assistive Technology Act Programs and State AT Programs in general -- since they were the ones who actually implemented the research we conducted.

Each state and territory has a federally funded State Assistive Technology Program. And I'm going to use the acronym AT because it's so much easier than saying assistive technology over and over again. The State AT Programs implement a kind of set variety of activities and they are required to serve people of all ages, all disabilities and statewide.

As part of the activities that State AT Programs do, many of the programs got involved when HAVA passed and states were developing their HAVA state plans, et cetera. In the process of states identifying accessible voting equipment, then purchasing, deploying and providing training on it. And as part of that work, we started getting the basic idea that there was a significant underutilization of accessible voting systems and that poll workers were really struggling to provide the kinds of supports that voters with disabilities needed to use the accessible voting system when they showed up at the poll in place on Election Day.

So that background was part of the reason we got involved in the research activities that EAC funded.

To back-up our perception of sort of underutilization of accessible voting systems, there is literally a litany of research.

And I've mentioned director's research -- to the middle of the slide -- that Lisa just covered part of.

There's also survey and research that was done by the National Council on Disability -- that's NCD. And they also found 45% of their survey respondents reported areas involving voting machines, 25% of their respondents identified untrained poll workers as an issue that's creating this area for them.

And then the National Federal of the Blind did eight surveys and their recipients and respondents were saying 25% of those blind voters indicated they were unable to use the accessible voting system when they got to the polling place because it was not set up, there were poor instructions. Again, poll workers were having a difficult time providing appropriate assistance.

So, in general, it appears to us that our perception had to be backed up by all of this research that was saying, yes, people are really struggling to use those accessible voting systems.

State AT Programs provide a variety of activities, but one of the core activities that very much all State AT Programs provide is device demonstrations. And a device demonstration is a hands-on guided exploration of a variety of assistive technology that's provided by somebody who has expertise and knows the AT devices. And the end goal is for the consumer to become familiar with the device and the access features of that device so that they could decide how this will work for me and I know how to use this so I can actually make it functional and doing whatever it's supposed to do for my benefit.

So since AT Programs were doing device demonstrations, we hypothesized that those kinds of demonstrations done with accessible voting systems would increase voters ability to use the accessible features of the voting system and that it would actually increase the likelihood that a voter would go to a polling place and use the accessible voting system. And in particular, our hope was that it would actually create a situation where the person might go to the polling place and vote when they did not vote in the past -- which we thought would be an especially nice outcome.

So, we implemented device demonstrations in six states -- Illinois, Missouri, North Dakota, Oklahoma, Montana and New Jersey. Four different kinds of accessible voting systems were demonstrated. And we really were not focusing on the equipment itself. Whatever the jurisdiction had was fine. We were used in collecting our data that way.

The accessible systems were all those that were actually being used by the voters. And they were done with our AT specialists providing the demonstration.

We conducted a total of 506 demos. And I'm not going to run through all of these kind of demographic data, but we have a reasonable distribution of disability types -- vision, motor, intellectual and combination. We had a pretty reasonable distribution of ages -- seniors, middle age, young adults.

And we did ask folks if they had prior assistive technology experience and 52% of them said that they did. But when they provided us information about what assistive technology experience that was, it's literally less than 10% of the voters who participated in the demonstrations -- had AT experience -- that would actually be transferable experience to the accessible voting system. So in other words the vast majority of these people had experience with assistive technology that was, for example, a walker or a hearing aid, or something that could not have a transferable learning experience to interacting with the accessible voting system.

Those voters that had experience with screen reading software, enlarging software in the computer, that sort of thing, those people did have some AT experience that they could use to help them learn to use the accessible voting systems. But like I said that was a very, very small proportion of all the people that participated.

I have a few tables in here. And I am not going to belabor you with numbers and data, but when we did the demonstrations we recorded the minutes, the amount of time it took for the person to become independent using the access features and the voting system. And then we also recorded the number of minutes it took them to complete a relatively short sample ballot.

And the results were laid out in terms of the different access features. And in essence it took people about the same amount of time to learn to use access features whether it was enlarging - the enlarging feature or the audio/tactile ballot -- whatever. And it also took them pretty close to the same amount of time to complete the short sample ballot.

I will call your attention to the switch app input at the end and say those numbers are really skewed today because they're very, very tiny. Very small in, but also because the people that we had using switch inputs -- as far as the demonstration -- most of them were already very experienced switch users. So that completely skewed, you know, the data for that particular group.

I've also put in a couple of tables that lays out the overall minutes to independence just so that you can see sort of the fact that there is a large group of people -- over half, 51% -- that you can get independent in a pretty short period of time -- four minutes or less.

However, there are also people -- a good number of them -- that takes longer and there are a small group of people -- 15% -- that really, really take a long period of time and a lot of hands-on demonstration to get them independent using the accessible voting system.

And the second table is broken out by age because people kept asking, "Well, is it those seniors that are, you know, kind of jamming up the works because they have trouble with electronic stuff?" And interesting, yes and no. They clearly -- if you look at the one, the two minute time period, clearly they did not - far fewer seniors became independent in one to two minutes. But if you add in three to four minutes, it kind of evens out and there really isn't a big age difference in terms of how long it took people to get independent.

So, I think that said something for the fact that we feel there's a long way to go to get many people with disabilities comfortable using assistive technology that's kind of computer based.

We also asked people to rate themselves on their ability to use the accessible voting machine before the demonstration and after the demonstration. And the change was down significance (sic). The pre-demonstration mean was 4.47 -- in the 10 point Likert scale, sorry, that's helpful to know -- and post demonstration that increased almost 4 points.

So clearly the demonstration helped people become more confident in their own perspective of being able to use the voting system. And you can see that change data down there.

It's interesting that it also helped people look at going to the polling place and feeling confident enough to say, "Yes, I will go to a polling place and use this equipment now because I'm confident enough to do that."

So, in summary what does the data tell us, I believe that it's - certainly demonstration and training activities were a viable way of improving use of accessible voting system both improving the number of people who use them and definitely improving the degree to which people can use them efficiently and not take forever.

I think we learned that the current batch of accessible voting systems that people are using are just not really intuitive or easy for a lot of voters to learn how to use. Some people are going to require a pretty extended period of time to learn to use accessible voting system.

And I think this next one is a - just a definite. We cannot expect poll workers on a busy election day in a polling place to be able to provide the kind of training and support to take a voter who has no experience using that accessible voting machine and get them to the place where they can use it. That is just far too much to ask of a poll worker on a busy election day.

Tying in somewhat with the President's Commission and the Early Voting et cetera, clearly voters with disabilities take more time to complete their ballots using an accessible voting system even if they are efficient users of the access features. So, any way that you can make voting more flexible, more time allowance, early voting -- all of those things -- will really be helpful for voters with disabilities.

Summary, kind of two overarching recommendations. Making accessible voting system demonstrations widely available so that people with disabilities can participate in a local community setting -- any place that's convenient -- so they become confident using the access features and then providing expanded voting opportunities whether that's early voting, extended time while voting. Any of those flexibility features will be really helpful.

Very quickly I'm going to provide you just a little information on a second research angle we ended up taking after we began doing many of these demonstrations.

The comment that was made over and over and over and over again to us was that the large text size on accessible voting system is not nearly large enough. So we implemented about halfway through our procedure (unintelligible) when someone told us that. We also had a CCTV there which is an electronic enlarging system camera. You put the ballot underneath and it takes picture and enlarges it.

So we asked them to use the electronic enlarging system to identify what text size was actually big enough for them. And I'll sort of give you some information on that research.

The other comments that came up very frequently were the strike areas were either too sensitive or not sensitive enough. And the audio navigation for the audio/tactile ballot and the switch input navigation were both slow and cumbersome. And for anybody who's never used them I don't think that's a surprising comment.

So, when we did the activity with the electronic enlarging system and have people identify what size was actually - text size was actually going to be big enough to meet their needs, their - the average preferred size was 17.46 millimeters. And right now the VVSG voting system standards requirement for large visual display or large print is 6.3 to 9. So, clearly, that's why, you know, these voters were telling us that's not big enough, because I was clearly really not even close to being big enough to meet their needs.

And these are folks who use large visual display. They are not audio users. They're not blind folks, they don't want to use an audio ballot, they want large visual display.

So, we thought maybe then electronic enlarging system would be an alternative rather than the accessible voting system. The problem is that a CCTV is set - there's a place underneath, there is a camera facing down looking at it and then you are looking at a screen so in order to - reading the ballot is great, but marking the ballot means you have to be looking at a screen straight in front of you and yet you can't - you're not looking directly at your

hand and for many of these people who are elderly that hand-eye coordination was just impossible.

So these people really didn't want to use this CCTV or electronic enlarging. They preferred the accessible voting system, but the text just wasn't big enough.

So I think that certainly has implication for creating the next generation of accessible voting systems and what is actually big enough for these folks.

And my last slide is just a quick summary of the challenges we faced during these demonstrations. And honestly the biggest challenge was getting accessible voting systems released, freed, from either, you know, the County Voting Election Office or the Secretary of State if it's a statewide kind of thing.

And I understand completely the reluctance of those folks to release that equipment because they have to use it in elections, they have to make sure it stays operable, et cetera, et cetera. They need it with plenty of lead time upfront for ballots, et cetera.

And so, we even looked at, you know, trying to purchase or get equipment directly from vendors. And the vending community really isn't interested in selling or making equipment available to people other than election officials -- again, for very legitimate reasons -- because of proprietary issues and on and on and on.

So, it was very challenging, honestly, to get equipment released and then it had to be turned back in in time for elections, et cetera. So, in order to actually do kind of comprehensive demonstrations throughout the community, we need

to figure out some way to make that equipment less cloistered and maybe that's developing a dummy unit that doesn't have any of the proprietary ballot counting or anything else. It's only the user interface part that's really important.

So that was by far the biggest challenge. Other than that it is time consuming so you have to have staff, you have to have people who do have expertise and access features, et cetera. But those things, I think, are much easier to work through if you can partner up with disability organizations and senior organizations within the community.

And just in closing, that Web site, this is the ATAP Org voting kind of page. It's a complete copy of our research results that has a whole lot more details on what's on these slides. And there are also a set of videos from people who participated in the demonstrations and some other information.

So, if you are interested, feel free to go there and check out that additional information.

Shaneé Dawkins: All right.

Diane Golden: And I appreciate your time.

Shaneé Dawkins: Thank you, Diane.

Right now there are still no questions in the chat box.

Once again, to the participants, if you have a question, you can type it there and it will be answered immediately after the presentation or at the end.

So we'll just go on to the next presenter who is Jim Dickson.

Jim Dickson has 30 years of experience with nonpartisan voter engagement issues. He currently serves as a Co-Chair of the National Council on Independent Living Voting Rights Task Force.

Prior to working at NCIL, Jim served as the Vice President for Organizing and Civic Engagement for the American Association of People with Disabilities (AAPD). He led AAPD's nonpartisan Disability Vote Project, a broad coalition of 36 national disability- related organizations whose mission is to close the political participation gap for people with disabilities.

Mr. Dickson also played a central role with the Leadership Conference on Civil and Human Rights effort to pass the Help America Vote Act. He was part of the leadership team which passed the National Voter Registration Act.

He is the immediate past Chair of the Board of Advisors to the EAC.

In 1987, Mr. Dickson became the first blind person to sail a boat alone from Rhode Island to Bermuda stimulating public discussion on the abilities of people with disabilities.

Jim?

Jim Dickson: Thank you, Shaneé.

Hello, everybody. My presentation is going to be brief. Hopefully we'll get some questions or conversation or comment going because we want to learn from those of you who are participating in the webinar what we have

presented that is useful, what was relevant, what are the challenges that you face running elections.

First slide is the research alliance for accessible voting. We were able to win a competitive grant process conducted by the EAC and these are the organizations that belong to it.

What we have learned is that it is extremely important when talking about voting and when looking to improve the process that it has to be a broad network of people who are involved -- all from different perspectives. So, you see we have election officials and disability organizations. We also have academics who are builders, scientists who - who listen to what we thought was important and then went out and built stuff and had it tested or as Diane just recently went over the disability groups did a lot of actual testing. So he had her experience, her depth on what is needed.

The next slide on the President's Commission -- first thanks to the hard work of both Lisa, Diane, and many other disability leaders and some election officials from around the country.

There was a lot of people who spoke to the accessible voting and the many public hearings which the President's commission held and we are generally very pleased with their recommendations.

As Pat said the biggest effect, the biggest prize is the idea that disability needs to be baked in from the beginning not an add-on.

Accessibility being a foundation is for those of us who work in disability arena. This is one of our core struggles.

And I think the President's commission and the election administrators who let - and legislators are really to be applauded because it's taken it relatively short amount of time to get the notion that disability needs to be baked in at the very beginning.

We of course we'll have - it'll take time and we'll have some struggles to get that implemented as we were bit it is a - it will be a huge, huge step forward.

A direct and important outcome of the EAC grant and research is one of the major recommendations of the President's commission; election administration is an idea that was dreamed up and tested by Dr. Juan Gilbert and his team at Clemson University. This addresses specifically the lines is a way to cut back the amount of time it takes to vote.

Diane mentioned that even with a lot of familiarity a voter with a disability who knows the equipment is going to take a longer period of time in the polling place to cast a ballot.

Dr. Gilbert's idea was very simple though its multi-steps. Number one the voter can using her own less extensive technology go online, mark the ballot, take as much time as the individual needs. This is done in the person's home or could be done in a public library where there are accessible voting - accessible machines to connect to the Internet.

The voter then prints out a QR code. That's a fancy computer science term that means you got a piece of paper with some stuff on it that only a computer can read.

I should say that this process reduces the amount of time in the polling place. Huge in actual time measurement this QR code process reduced - many

people got it done in less than a minute compared to five, six, eight, ten minutes in the polling place.

The QR code does not show what one prints out. It does not show anybody what the voter selections are. The voter undertakes that code to a simple machine in the polling place feeds the paper in.

The voter can then see her selections. She can change them, approve them, and then print out the paper ballot right there in the polling place.

This speeds up the process we think. And we need more data. But we also think because people can take whatever time they need at home in going through the ballot we think that this will increase down ticket voting which is a problem that the entire country faces. Way too many people just vote the top of the ticket.

And so we think -- and this needs a little bit more research -- that here is an example of a disability can be the canary in the mine shaft and if you build a system that is assessable for people with disabilities it will have spillover effects on the entire voting process for everybody.

Just one crystal example on this type is after the passage of the ADA current cuts were put in and the national transportation system was put under instructions to eliminate barriers steps.

That generated the whole notion of suit case on wheels which is ubiquitous now and makes travel for everybody much easier.

Also the curb cuts became, you know, regenerated the baby stroller industry and increase the use of bikes, bicycles.

So there will be we believe a broad benefit to the whole election process for all voters when we baked disability into the foundation of every process and device.

Next slide. I just spoke about that.

Next slide. As Diane mentioned and as Lisa's data confirms there is a real problem with needing to train poll workers on how to set up the assessable device and train voters.

You have here an example of a visual very simple explanation a teaching tool which the Missouri Disability Vote Project developed in conjunction with election officials and disability leaders in Missouri and Tennessee. Visual can clearly make of big difference.

Here's another example of - next slide. Here's another example of a visual guide for training. I should say that there is a consensus amongst disability community and I believe amongst the academic researchers that we need to move away from a one machine for people with disabilities.

We need everybody marking their ballot and making the choices on the same device that will simplify training. It'll simplify and speed up election day for lots of voters. And with the ballot marking devices that are on the market and that are the title which was used with Dr. Gilbert's voter batch you get the paper ballot that can be printed out in the polling place.

Next slide, simplified language is important not only for many voters with disabilities. Our education rate high school graduation rate is lower than for the general public.

But we also have a huge literacy problem which I'm convinced is a major factor in low turnout not just for voters with disabilities but for many of the survivors of our public education system which in way to minimum many cases does not teach citizens how to read.

This is a very simple example. Dr. Kathryn Summers at the University of Baltimore is a literacy expert and she conducted tests. And simply changing on your ballot the word Select to the word Pick speeds up the amount of time it takes to vote whether it's paper or on a machine and it also gives voters a much more positive sense of it worked out the way I wanted it to work out, the efficacy points that Lisa made earlier.

Next slide. We need and some of us have already started the process of convincing the federal government that research on improving the accessibility of voting is essential and so we're going after additional federal funds.

But we also believe that election officials who have very tight budgets need funds so that they can contract the local universities to help them measure test design processes, procedures and equipment that they want to use.

I want to really emphasize this. Election officials work very hard and we should all be pleased and applaud election officials because by and large a very complicated system works very, very well.

But often election officials don't have objective data that they can use one to make decisions and two to convince local funders, the town council, the city council, state legislature that they need money.

So why not when election officials struggle with the - with recruiting poll workers wouldn't it be wonderful if an election office could go to a university's business school, work with the business department to develop a business plan that will help recruit poll workers?

Not all - and I just don't mean a plan on paper, I mean there needs to be the resources so that the ideas can be tested and measured so that we know what will really help recruit poll workers.

There are many other pieces of research that I know election officials would love to be able to do. And the biggest one of the hugest problems -- I don't know if hugest is good grammar -- that election officials face is convincing their funders, their local legislatures and councils that they need more money.

It's very hard for a county commissioner to pick between money for voting which might happen once a year and money for a new fire truck which is going to unfortunately be used once a week.

Having universities available will credential the research that election officials need so that they won't be perceived by local jurisdictions as simply wanting to feather their own nest.

Next slide, these are ideas that we think need more research. Many of these research items address observations and recommendations that the President's commission report made.

We particularly, you know, speaking for the disability community would really like to get input on what should be done in terms of future research from election administrators and others.

So either we could talk about that now or you could reach anyone of us through Shaneé Dawkins.

The last slide and thank you all very much.

Shaneé Dawkins: All right. Thank you Jim. (Lena) can we open it up for questions please?

Operator: Sure. Ladies and gentlemen if you'd like to register for a question please press the 1 followed by the 4 on your telephone.

You will hear a three-toned prompt to acknowledge your request. If your question has been answered and you would like to withdraw the registration you can press the 1 followed by the 3.

And if you're using a speakerphone please lift your handset before entering in your request. Again that's the 1 followed by the 4 to register for a question over the audio side. You may also use the chat feature located in the lower left corner of your screen.

One moment please.

Shaneé Dawkins: Thank you (Lena). Okay while we're waiting for some questions to come in I'm going to first post that in the chat box the contact information for all of the presenters including Pat Leahy from that EAC and myself from NIST.

And I will go over some information. There is one message that has come over the chat box so I want to close with some final information first.

The first thing is you can join the accessible voting technology email list we have where you can receive announcements that other people post about their

research or any information or news or any upcoming events related to accessible voting technology.

And you can post things yourself. And that is avtlist@nist.gov. If you'd like to join that list you can send your information to avtvote@nist.gov.

The next thing is the accessible voting technology Web portal which is online, the easiest way to get there is to go to vote.nist.gov and scroll down and there's a link for the accessible voting technology portal. That is where we have a lot of information about the research that's going on under the EAC grant.

There are also the three - the two previous Webinars that were held in January and the Webinar today. The recording will be posted online on the portal on the Event page.

We'll try to get today's Webinar up within the next week. We will also have the presentation from today's Webinar posted on that Web site as well.

And there is one final Webinar under this grant from the EAC and it highlights of the accessible voting research and the impact on elections.

We will have Pat Leahy, Sharon Laskowski, Daniel Castro and Juan Gilbert all discuss the research that has been done over the past several years under the grant and highlights and how this work can now be used for future elections.

Well send out emails - we'll send out reminders for that Webinar on the AVT list email listserv. So right now we have a few questions in the chat.

The first question is from Kathryn Martin. I think it might be for Diane Golden. And the question is how do we obtain a list of state assisted technology agencies?

Diane Golden: Yes. This is Diane and I posted an answer already. That I - there's the link that was in my slides and I put it in the answer again.

If you go to that link it'll have our full research report and everything and some videos. There's also a link on that page to a guide, an accessible voting system. It's just an accessible voting guide that has a whole lot of really good information about assessable voting features and whose needs they need et cetera.

There is - there are appendices at the end of that guide. And I think it's Appendix C is a whole list of disability organizations.

And we tried to identify all of those who have a national organization so that you can go to their Web site. And they have a link that takes you to the state and local affiliates.

So it's and the state AT programs are in there. The protection and advocacy agencies, the DD councils -- I'm using a lot of acronyms familiar to the disability community -- United Cerebral Palsy, Easter Seals, blah, blah, you know, Paralyze This.

And it gives you if you go to the national site it gives you the link on there to the - all the local affiliates so you can see if there's a paralyzed that organization closer an ALS association and you can see who your state AT program is.

So hopefully that's a helpful resource in getting election officials connected with disability organizations in their state and community.

Shaneé Dawkins: Okay. Thank you, Diane. We have another question in the chat from John Schmitt. It's good to see John's on the call.

And this question is for Jim I believe. He says "Jim good to hear you. Glad you like the idea of making a valid at home with all the benefits it has -- extended time, location familiar hardware, and software, et cetera.

Using your examples of the benefits of curb cut during last fall's election our Oregon HTML ballots were used by the disability community, UOCAVA voters as well as 25 Oregon voters who were stranded on the East Coast by Hurricane Sandy.

Using voters options is a good thing and I after reading that realize that it's not a question but a very wonderful statement. Thank you John".

Jim Dickson: Thank you John.

Shaneé Dawkins: Okay. (Lena) are there any questions through the audio?

Operator: We do have a question coming from the line of Sara Harris. Please go ahead.

Sara Harris: This is Sara Harris. I retired as an occupational therapist and also as a deputy election director and wondered if you had included the American Occupational Therapy Association in your National Context?

Diane Golden: This is Diane and I'll have to go back and look. I don't know if we did only because we didn't do any kind of I don't remember but I don't think we did any kind of professional organizations like OT or (PASIA), or PT...

Sara Harris: Yes.

Diane Golden: ...and it of those. I'm trying to remember. I think we stuck with the A there is a section of federally funded networks where there is one in each state and it's a federally funded thing. So that's where the DD councils and all of that, the state AT folks come in.

And then I think we went with pure disability organizations but, you know, obviously I mean one of the things that we've kicked around is trying to partner up OT training programs with...

Sara Harris: Yes.

Diane Golden: ...election officials and having students OT students who would be great is kind of roving, you know, accessibility people...

Sara Harris: Yes.

Diane Golden: ...on election day.

Sara Harris: Yes.

Diane Golden: So I think there yes a great opportunities for some of that definitely.

Sara Harris: Great. And I have talked with them and may be working on an article on the same topic but...

Diane Golden: That would be...

Sara Harris: ...pleased to know about that.

Diane Golden: Yes that would be just dynamite. And the same thing I mean if we could if we could figure out a way to I mean people are always talking about using high school students and college students because of the technology comfort level well I think the same thing applies in using, you know, college students who have also, you know, a disability background and particularly OTs who are going to have great, you know, technology experience.

Some speech language people would be great, you know...

Sara Harris: Yes.

Diane Golden: ...So yes I think we have a real potential there.

Sara Harris: Okay. Thank you.

Jim Dickson: I - this is Jim. I think that is a terrific idea. We have from time to time had some conversations with the national OT organization. And I would really encourage you to do an article. And I think we should then if you get that to Shaneé that article should be circulated to the listserv.

Diane Golden: Thank you Jim. And you and I - I have talked with you about this very possibility. So I appreciate that and will keep you informed.

Jim Dickson: Thank you.

Diane Golden: Thank you.

Shaneé Dawkins: Okay thank you. Sara - (Lena) are there any other questions on the audio?

Operator: At this time there are no further questions however as a reminder it's the 1 followed by the 4 if you'd like to register for a question over the phone line.

Shaneé Dawkins: I'll give it another minute.

Pat Leahy: Hey Shaneé, it's Pat. I just wanted to kind of toss out there it is a question for the group here. First off thank you for your work on your sub grants. Lisa, Diane, and (Jamel) did a great job and hopefully the work continues in some way even after the grant ends.

My question and just if you give a kind of a brief answer would be what ways do you think that we could be helpful and that we could work together on making sure that you're finding and your best practices get out there so that people are using them?

So whoever wants to go first. You want to go first Jim?

Jim Dickson: Sure thank you Pat.

Pat Leahy Sure. I think we need to produce a brief summary of our research and the - and Daniel Castro's team research and get that up on the NIST and EAC Web sites.

The summary should have links to the detailed information and then we need to get that document Web site circulated at both state conferences of election

officials and national conferences of election officials so that it can be a hand out in the packets that people get when they go to conferences.

Pat Leahy: Thanks Jim.

Lisa Schur This is Lisa. Just responding to what you said Pat. I think also possibly taking the report and writing a short paper in very, you know, non-technical language and then getting it up on various Web sites might also be maybe a summary kind of paper. I'm sort of working on that as well just to try to spread the word to as many people as possible.

Pat Leahy That's a great idea.

Diane Golden: And this is Diane. Honestly for the one thing that comes to mind with our - the research we did particularly on the large visuals display is somehow getting the TDGC backup and operating and being able to use some of this information and data we have now to actually improve the standards so that they reflect, you know, and much better meet the needs of voters who need those particular access features would be great.

Pat Leahy No there is talk of commissioners being back in there later...

Diane Golden: That would be lovely.

Pat Leahy ...this year so hopefully TDGC would follow.

Jim Dickson: That would be very, very good.

Pat Leahy: Well thank you.

Shaneé Dawkins: All right thank you. I have another question in the chat from Judy Wertheimer. Sorry Judy if I mispronounced your last name. She says what do you think of the auto mart technology being replaced with more modern technology?

Jim Dickson: Well this is...

((Crosstalk))

Jim Dickson: No you go first.

Diane Golden: I was just going to say, you know, it depends on what "more modern technology" might be. You know, the Auto Mark system, you know, is a valid marketing device and it has a reasonably robust set of access features not that they can't be improved, et cetera.

But I'm not sure if the, you know, the more modern technology is like moving everyone to an electronic interface absolutely that would be great. Because as Jim kind of said I think that's sort of our issue is if we've gravitated back towards there is a special separate special voting machine here and then everybody else hand marks paper so it kind of depends on what that new or improved more modern technology might be.

Jim Dickson: I agree with Diane. This is Jim. May it happen soon. I think most people know that I think about the only use of the auto mark machine would be as an anchor if you happen to have a boat. It is way too heavy and cumbersome for poll workers to use.

It's internal processor is way too slow. In states like California that have long, very long five, five, six, seven pages of a ballot it can take 45 minutes to vote on the auto box. And that's when you know how to use it.

Shaneé Dawkins: All right thank you.

Diane Golden: It looks like Judy has her hand raised. So I'm thinking...

Shaneé Dawkins: Oh.

Diane Golden: ...she's...

Shaneé Dawkins: Oh it does.

Diane Golden: Yes.

Shaneé Dawkins: (Lena) can you remind Judy what she has to press to ask a question live?

Operator: Sure. It's the 1 followed by the 4 on the telephone.

Shaneé Dawkins: So Judy if you have a follow-up please do that.

Diane Golden: Oh so she's typed in - this is Diane. She's typed in moving more to the touchscreen technology. Well I mean Auto Mark is touchscreen technically. I mean that's at least one way you can interact with it is touchscreen that it has an audio tactile and has switch input and various access features.

I think -- and Jim sort of touched on this -- I think for me in terms of moving forward there are clearly things that can be done to improve the efficiency and

the speed of the audio tactile ballot. And that applies to every voting system out there -- same thing with switch input kind of on and on.

I think from a - the 6000 foot level though what really has caused us a problem is that the accessible voting machine has become a very separate different event than regular voting.

And if we can get back to the place where everybody is voting basically the same way you're - if you're going into a polling place, you're interacting with a ballot electronically in some way and it's probably going to print a paper ballot that's just where we are for security purposes whatever.

But if everybody is doing it not just people with disabilities or interacting electronically and everybody else is hand marketing it just eliminates so many of the learning curve problems and the poll worker expertise problems because everybody has to be familiar with that interaction. Everybody uses it.

And that gives us that baked in system where then the only thing people with disabilities are doing are using a little different interaction but everybody is interacting electronically and marking their ballots that way.

So that I think would be a step forward and would be very helpful and then we can also improve access features that would I mean we clearly need to do that regardless making things more efficient and more effective for people to use so that the, you know, they're just not so slow and cumbersome. And those are all just internal design features of software that - or can be fixed relatively easy.

Pat Leahy: That's a great point Diane.

Jim Dickson: This is Jim.

Pat Leahy: Sorry Jim. Let me - that's a great point that - and we didn't necessarily want this to happen with Help American Vote act but one of the unintended consequences was that you did get this machine in the corner that at times people look at and say oh that's - that's the machine if you need it for assistance. And it's not what we intended all so that's a great point. Thank you. Sorry Jim.

Jim Dickson: Yes I would also add that having everybody mark their ballot in the polling place using an electronic interface will help hugely when there are close elections and you have to do a hand recount.

Ballots that are hand marked raise the whole question of voter intent. And we have this really ugly process in a close election of both sides trying to disqualify ballots with it appeared that the voter wanted to select the other candidate.

That's very unhealthy. Machine marks will be the same. They will always be in the right place. And one of the very interesting pieces of research that Dr. Gilbert at Clemson did was when the paper ballot is printed out just prints out the positions and the voter's selection so that you don't have a full ballot that people have to scan when doing a close election hand count.

Having just the list of selections speeds up the hand count, makes it more accurate and it eliminates all of monkey business about whose vote should count and whose vote shouldn't count.

Diane Golden: This is Diane and I would say that Judy has a follow-up about she's saying they have to touch a touchscreen and carry the ballot. So, you know, if you have a brief encounter a ballot box and I'll address the touch first.

Touch screens are one way of interacting with an electronic voting system, voting interface even if it's a valid marking device.

There has to be an alternative to the touchscreen. And that's the audio tackle ballot for people who are blind and using audio navigation. And then there's a tactile keypad of some sort so that they're not using the touchscreen.

And the same thing with a switch input. So yes and most successful voting systems all of them have an audio tactile ballot and many of them have switch access even if they use a touchscreen as one part of the interaction.

So the touchscreen itself is not a huge issue. There just has to be an alternative to that in terms of the different access features.

And the part about manually handling the paper ballot once it's printed out of the backside of whether that's a ballot marking device or any other of the accessible voting systems you are - you have just hit the, you know, the proverbial gorilla in the room which is yes for people with dexterity limitations right now except for perhaps that Dominion system that has recently come on the market that automatically feeds a marked a ballot into the precinct counter yes all of the auto marks out there have a major access problem because people with mobility problems have to have help casting their ballot. They cannot do it independently. So...

Jim Dickson: I have used the Dominion voting system. And it has a configuration so that no voter has to handle the ballot after you mark it, review it, cast it. It goes into the ballot box all by itself.

The other major voting manufacturers are all working on systems that eliminate the - that automatically put the printed out ballot into the ballot box.

Both EF&S (Hark) are very close to bringing their new equipment that eliminates this problem into the certification process.

Diane Golden: So yes I mean you definitely identified it's a huge, huge access barrier since ballot markers came on the market.

And for those of you who are really interested the other big problem has been rescanning the content of the - a marked printed ballot into an accessible media so the people particularly with visual impairments of some sort can verify their ballot.

I like to tell people there are three pieces to voting and all three pieces need to be accessible. That's marking the ballot, verifying what you marked, not something else that literally the marks you made or the machine made for you using a ballot marker and then casting it.

So marking the ballot, verifying the print content of the ballot and casting that paper printed ballot all need to be accessible.

People are pretty good at making the marking part accessible. They're really not very good at making the verifying and they're horrible at making the casting fully accessible.

Shaneé Dawkins: All right. Thank you Diane. (Lena) are there any more questions on the audio?

Operator: At this time there are no further questions over the audio.

Shaneé Dawkins: All right. Well if the presenters have no further comments it's now a little after 3:00. No? Okay oh Judy says she agrees totally.

So thank you so much to the presenters for discussing your work today. And thank you for the participants take the time out of your day to come and learn more about what's going on under the AVT grant.

I do hope that you will join us for the next Webinar which will be Friday, June 20 at the same time.

So thank you everyone very much for your participation and I hope you have a great day.

Lisa Schur: Thanks Shaneé.

Jim Dickson: Thank you.

Pat Leahy: Thank you.

Diane Golden: Thank you.

Operator: Thank you ladies and gentlemen. That does conclude today's Webinar. We thank you for your participation and ask that you please disconnect. Have a great day.

END