

Accessible Voting Systems Vendor Fair Survey Results

On April 4th, 2005, citizens with disabilities from all over the state tested voting systems and completed surveys documenting their reactions to each system. A total of 496 surveys were completed.

The survey results on the following page will be one of several factors used to help the Oregon Secretary of State decide which voting system or systems to purchase to give citizens with disabilities the opportunity to vote privately and independently.

Brief descriptions of each voting system are provided in italics next to the voting system names to aid those who attended the Fair, but may not be familiar with the names.

The final weighted score listed on the Survey Results Chart was reached using the scale below.

The scores are presented on the Survey Results Chart as **weighted score**/number of surveys completed.

Question	Possible Score	Possible Weighted Score
I would like to use this voting system in an election.	5	10
There were too many steps in using this voting system.	5	5
I thought this voting system was easy to use.	5	10
The instructions for this voting system were difficult to understand.	5	5
The buttons or touch screen were easy to use.	5	5
It was hard to move around the ballot with this system.	5	5
I think that most people could learn to use this voting system very quickly.	5	10
I found this voting system awkward or difficult to use.	5	10
I felt very confident that my vote was cast correctly with this voting system.	5	15
I would need help each time I used this voting system.	5	15
The ballot text was easy to read or hear.	5	5
Casting my vote was easy.	5	5
	60	100

Accessible Voting Systems Vendor Fair Survey Results Chart

The scores are presented as **weighted score**/number of surveys completed.

weighted score	mobility	vision	manual dexterity	hearing	cognitive/ mental health	none	other	multiple
Advanced Voting Solutions Vote by Phone								
68.38/50	65.83/6	69.86/29	71.00/2	n/a	85.50/4	50.50/4	68.33/3	53.50/2
<i>the phone system that used voice recognition</i>								
Advanced Voting Solutions WINVote								
69.81/64	81.29/7	65.38/29	76.50/2	n/a	71.69/13	70.50/6	65.50/2	72.80/5
<i>the system that used the touch screen for navigation</i>								
Avante DRE Voting System								
73.49/49	78.00/5	72.78/23	82.00/3	n/a	71.80/5	75.25/4	76.67/3	66.83/6
<i>the system that used a modified computer keyboard</i>								
Avante Optical Voting System								
71.39/31	93.33/3	65.31/13	n/a	76.00/1	71.38/8	66.33/3	78.00/1	80.00/2
<i>the system that used a modified computer keyboard and an optical scan paper printout</i>								
ES&S Automark								
77.25/61	85.25/8	75.13/30	82.00/1	76.00/1	75.90/10	85.00/2	81.00/3	74.33/6
<i>the system that used an optical scan ballot</i>								
Hart InterCivic eSlate								
71.31/78	71.00/9	70.50/40	72.00/2	60.00/1	75.58/12	80.20/5	67.33/3	64.83/6
<i>the system that used a dial for scrolling through choices</i>								
IVS LLC Inspire								
71.46/26	79.75/4	80.08/12	36.00/1	n/a	69.00/4	n/a	61.00/1	51.25/4
<i>the system that used a phone keypad for navigation</i>								
IVS LLC Vote by Phone								
72.20/35	50.00/4	80.96/23	n/a	n/a	55.00/4	n/a	60.00/2	62.50/2
<i>the phone system that was activated when the vendor entered a ballot id</i>								
PhonElect Vote by Phone								
62.75/44	60.78/9	65.25/24	86.00/1	n/a	60.40/5	n/a	44.00/2	57.33/3
<i>the phone system with a full-length ballot demo</i>								
Sequoia AVC Edge								
73.55/55	76.86/7	70.27/26	72.00/1	n/a	78.83/12	79.00/3	70.67/3	71.00/3
<i>the system that used four differently shaped, color-coded buttons for navigation</i>								
VoteHere Sentinel								
71.33/3	76.00/1	n/a	n/a	n/a	72.00/1	n/a	n/a	66.00/1
<i>the voter verification system; the survey for this system had a possible total of 90 points</i>								

Accessible Voting Systems Vendor Fair Survey Results

Advanced Voting Solutions | Vote by Phone

Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.78	7.55
There were too many steps in using this voting system.	3.56	
I thought this voting system was easy to use.	3.57	7.14
The instructions for this voting system were difficult to understand.	3.67	
The buttons or touch screen were easy to use.	3.66	
It was hard to move around the ballot with this system.	3.48	
I think that most people could learn to use this voting system very quickly.	3.75	7.50
I found this voting system awkward or difficult to use.	3.52	7.04
I felt very confident that my vote was cast correctly with this voting system.	3.58	10.75
I would need help each time I used this voting system.	3.57	10.71
The ballot text was easy to read or hear.	3.48	
Casting my vote was easy.	3.56	
	40.32	68.38
Writing in a Candidate was easy <i>this question appeared on the survey but was not included in the final score</i>	2.88	

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | Vote by Phone

mobility

Next to “I found this voting system awkward or difficult to use.” wrote: Background noise interfered

Next to “The ballot text was easy to read or hear.” wrote: Background noise

Other Comments: If any electronic system were going to convince me to try switching from paper ballots, it could be this one.

The phone didn’t work at all!

It would not read back what I had actually said. It took 3 times to dial in. The speaker’s voice was too low in volume.

vision

liked voice recognition and ability to do at home—hard to know if vote was cast correctly—need print receipt to have elections officials verify my ballot.

eliminates transportation problems to go and vote at a polling place

Next to “I found this voting system awkward or difficult to use” wrote: noise

Other comments: Registration process wasn’t accurate—voting section could have been louder

Next to “I would like to use this voting system in an election” wrote: at home where quiet

Other comments: I was not able to finish phone—too much background noise. It kept asking to repeat. I could barely hear.

The phone system may not have been loud enough. If phone system doesn’t understand, “please repeat your choice”—Do not error—That is confusing.

Next to “The ballot text was easy to read or hear.” wrote: Noise in Room

Other Comments: Liked security of voice recognition—Difficult to do in this setting. I like the familiarity of using own phone—increases comfort and confidence.

I liked it best of what I tried so far.

Prefer to vote by phone at home.

Hearing was difficult; couldn’t go back and reverse decision—ability to not vote for candidate was difficult. (wasn’t bad system)

voting by phone is the best method for visually impaired

I liked this voting system because: it was private and easy to use.

Have to have a quiet atmosphere!!!!

NOISE was written next to questions 1,3,4,7,8, and 9; NEEDED QUIET ROOM. Didn’t get beyond saying ID number. Never understood. Didn’t get to experience entire process.

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | Vote by Phone *continued*

vision *continued*

Next to "The ballot text was easy to read or hear." wrote: kept kicking him out

Other comments: It required voice print and wouldn't accept mine.

Next to the "I found this voting system awkward or difficult to use." & "Casting my vote was easy." wrote: NOISE

Other comments: Excellent system except exterior noise blocks info

very simple and convenient

I didn't like this voting system because: difficult to put in voice part

I didn't like this voting system because: voice recognition didn't work

voice component wasn't good

voice recognition was really hard to use

I liked this voting system because: of voice activation.

just didn't like it.

Next to "I thought this voting system was easy to use." wrote: a little too noisy

Next to "I would need help each time I used this voting system." wrote: minimum help

I like this voting system because...it is available at any phone and because vote cannot be interrupted.

I can do it from home

cognitive/mental health

Too much noise in the room—otherwise very easy

it was fun

didn't like for lack of privacy—everyone could hear

none

Too hard to hear and asked questions too many times over again.

It was loud in the lobby and the phone system could not hear me. It was very frustrating.

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | Vote by Phone *continued*

none *continued*

I think that people who are homebound, this would be an excellent method for them to vote.

Next to "I thought this voting system was easy to use." wrote: wasn't able to access much

Next to "It was hard to move around the ballot with this system." wrote: didn't get this far

I didn't like this voting system because...too much background noise

Other comments: not easy to get on

other

I have dyslexia—difficulty dialing numbers correctly.

Trouble hearing

I didn't like this voting system because: it was too fast

it was fun

didn't like for lack of privacy—everyone could hear

multiple

Phone was unable to understand my choices and I speak clearly. Did not even get registered.

Background noise made it difficult to hear—not system problem but environment

Accessible Voting Systems Vendor Fair Survey Results

Advanced Voting Solutions | WINVote

Question	Average Score	Average Weighted Score
Number of People Surveyed	64	
I would like to use this voting system in an election.	3.27	6.54
There were too many steps in using this voting system.	3.56	
I thought this voting system was easy to use.	3.48	6.95
The instructions for this voting system were difficult to understand.	3.65	
The buttons or touch screen were easy to use.	3.53	
It was hard to move around the ballot with this system.	3.27	
I think that most people could learn to use this voting system very quickly.	3.62	7.24
I found this voting system awkward or difficult to use.	3.25	6.50
I felt very confident that my vote was cast correctly with this voting system.	3.77	11.30
I would need help each time I used this voting system.	3.44	10.31
The ballot text was easy to read or hear.	3.89	
Casting my vote was easy.	3.78	
	41.95	69.81
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.53	

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | WINVote

mobility

I liked this system because of its easy to understand technology and it made voting fun to do.

It is easy to use, but I prefer voting from home. Internet voting would be better! (for me) Not going to a voting poll is very important to a person with a disability. Getting into an accessible voting location is nearly impossible for a person with a physical disability. I know people who would benefit from phone voting. If the system was easy to use. People would need to try the system first because I do not need to use this type of voting adaptation. I cannot give specifics. You need to find individuals that need this type of device.

I'm still sold on paper ballots.

It was easy and fun and a pleasure to vote this way!

Not sure my ballot was recorded correctly—would have wanted a print out.

vision

Next to "There were too many steps in using this voting system." wrote: too slow and confusing
Other Comments: Confusing—Don't like the buttons—need tactile markings—need tactile reference buttons.

Tactile markers should be on screen—a dot or something to indicate where corners were—how far from corner etc—nothing elaborate—just a marker—instructions—tap or touch—vague

tried twice—helpful if instructions were more consistent at the site

Good—only 4 corners. If more places, need Braille labeling.

It was hard to understand—thought it was patronizing—not user friendly for newly blinded seniors—(elderly)!!!

Partially sighted people great—not so good for totally blind—someone had to start the system.

I could not get touchscreen to work

It wasn't difficult to understand but it could get confusing. You have to keep track of what is going on.

I liked this voting system because:it was simple and large enough

Background colors important—a dark background with light lettering is easier for me to read—any red or yellow lettering is difficult.

Voice could be improved. Work more smoothly and consistently—system problem with reviewing my vote.

Only limitation—needed more ballot information about choices.

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | WINVote

continued

vision *continued*

I didn't like this voting system because...volume was too low; too noisy to hear

like it because speech was very clear

I didn't like this voting system because...the touch screen wasn't responsive to touch

I liked this voting system because...told who you voted for but didn't say thank you for your vote.

good portability

Next to "I would need help each time I used this voting system." wrote: just to set up
I liked this voting system because...easy to use.

I didn't like this voting system because...do not like touch screen.

hearing assistance needs to be louder

I liked this voting system because: it flowed and was easy to use.

I liked this voting system because...good for people with limited use of hands

Next to "The buttons or touch screen were easy to use." wrote: non-responsive
Other Comments: It was non-responsive or limited choices. Needed to restart system too many times.

I liked this voting system because: of the audio and Braille.

Speech synthesis quality was sporadic and broken in parts

Next to "I would like to use this voting system in an election." wrote: must be modified
Next to "I found this voting system awkward or difficult to use." wrote: need modification
I didn't like this voting system because...touchscreens were not textured for a blind person. Needs modification.

didn't vote successfully—did not like

manual dexterity

easy

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | WINVote

continued

cognitive/mental health

Next to "The ballot text was easy to read or hear." wrote: with explanations
I liked this voting system because...simple

Very easy to use; Screen too slow to respond to touch

Next to "The buttons or touch screen were easy to use." wrote: confusing
Other Comments: Like the way it is now—vote by mail.

I did not like screen

I liked this voting system because...liked the machine

I liked this voting system because...but it was kinda hard.

It was fun—interesting—numbers easy to remember—wouldn't use it to vote.

good machine

could use both systems for voting

yes, it was very accessible for me 😊

Really liked it—easy to use

none

easy to read text

Touchscreen needs overlay

The speech was poor.

It would need a raised line to mark the boxes for easier use.

Next to "I found this voting system awkward or difficult to use." wrote: glare from light on screen
Other Comments: watch height and light glare

Accessible Voting Systems Vendor Fair Survey Comments

Advanced Voting Solutions | WINVote

continued

other

It was nice to have the portability of having the unit transported to my car.

Coordination difficult

multiple

It's nice work

touchscreen didn't work for me. I didn't like it.

very simple

Accessible Voting Systems Vendor Fair Survey Results

Avante | DRE Voting System

Number of People Surveyed	49	
Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.63	7.27
There were too many steps in using this voting system.	3.69	
I thought this voting system was easy to use.	3.77	7.54
The instructions for this voting system were difficult to understand.	3.73	
The buttons or touch screen were easy to use.	3.98	
It was hard to move around the ballot with this system.	3.63	
I think that most people could learn to use this voting system very quickly.	3.82	7.63
I found this voting system awkward or difficult to use.	3.57	7.14
I felt very confident that my vote was cast correctly with this voting system.	3.83	11.50
I would need help each time I used this voting system.	3.47	10.40
The ballot text was easy to read or hear.	4.04	
Casting my vote was easy.	3.90	
	44.61	73.49
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.80	

Accessible Voting Systems Vendor Fair Survey Comments

Avante | DRE Voting System

mobility

Next to "It was hard to move around the ballot with this system." wrote: actually very nice

Next to "I felt very confident that my vote was cast correctly with this voting system." wrote: very impressed

Next to "The buttons or touch screen were easy to use." wrote: used large type

Size of square good. Not sensitive enough. Table should have been adjustable.

Appreciated ability to change size of text

vision

Volume switch was needed

Was not certain how to repeat a step if she made an error. Having whole keyboard was difficult

Liked because it was accessible

Introduction was very good. I liked it because of my software JAWS

Preferred vote by mail—blind ballot

The voting keys seemed mickey mouse, I would move the up and down arrow keys to the left hand side to match the cursor arrows. Move the circle to the top right had corner so as not to hit it with the elbow.

Liked the simplicity

first machine I tried and it seemed very good

Could be problematic for dyslexic or spacial—shape limited voters

Next to "I would need help each time I used this voting system." wrote: man at machine did a lot of the work.

Other comments: Fascinating, I am trying them all

Different steps left me confused

Volume dropped half way through. Buttons were not sensitive, did not register selections

If it always worked that smoothly

Initial auto instructions way too long

Satisfactory

Accessible Voting Systems Vendor Fair Survey Comments

Avante | DRE Voting System

continued

vision *continued*

Next to "I would need help each time I used this voting system." wrote: only if I wanted to do a write in
Other comments: Machine did not say computer style keyboard. I liked this machine best—#1 Phone ID I would use

Liked the voice output

manual dexterity

I felt rushed by person at machine. Different culture, I have my own speed

It was nice

cognitive/mental health

Found no objections to it

Easy to use

I like it

none

Next to "I would need help each time I used this voting system." wrote: memory problem
(Father of son with a brain injury)

Need to have audio for people who can not read well!

other

Next to "The instructions for this voting system were difficult to understand." wrote: one part was hard to read
Next to "The ballot text was easy to read or hear." wrote: except for part that was hard to read
Other comments: No description or instructions on how to do a write-in. I liked this system better than last one I tried.

I liked it

Accessible Voting Systems Vendor Fair Survey Comments

Avante | DRE Voting System

continued

multiple

Voice was machine-like and took too long

It was a good one

I did not like the small ballot verification slip. Too small and off to the side.

Didn't like because you could not do it at home. Liked because of ease of four buttons.

I liked it because it was easy to understand

Accessible Voting Systems Vendor Fair Survey Results

Avante | Optical Voting System

Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.45	6.90
There were too many steps in using this voting system.	3.45	
I thought this voting system was easy to use.	3.61	7.23
The instructions for this voting system were difficult to understand.	3.65	
The buttons or touch screen were easy to use.	3.61	
It was hard to move around the ballot with this system.	3.42	
I think that most people could learn to use this voting system very quickly.	3.39	6.77
I found this voting system awkward or difficult to use.	3.19	6.39
I felt very confident that my vote was cast correctly with this voting system.	3.97	11.90
I would need help each time I used this voting system.	3.55	10.65
The ballot text was easy to read or hear.	3.97	
Casting my vote was easy.	3.83	
	42.71	71.39
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.60	

Accessible Voting Systems Vendor Fair Survey Comments

Avante | Optical Voting System

mobility

Puff and sip system needed, not available here today.

Liked system.

It was easy to use and fun to use.

This method was very simple for me. The print was not large enough on the paper.

Wouldn't vote, wife couldn't because of [illegible]

vision

Liked to be able to write-in. Would like to be able to adjust speed of talking on machine (it was too slow). The buttons were hard to push for someone with fibromyalgia.

Inability to back up when using the alphabet need to be improved. In using any electronic voting system a paper could/should be provided.

If one cannot use the keyboard it is impossible to change letter once you said a letter--could not erase. The square button was difficult to press and was inconsistent.

Speech quality was not conducive for my average age client is 88 and nearly blind. Clients would think machine was intimidating. Issue of transportation to machine is a huge issue.

Clumsy system

Next to "The buttons or touch screen were easy to use." wrote: I liked it.

Other comments: Would take more practice to get use to but liked the system

Next to "The instructions for this voting system were difficult to understand." wrote: Hard to follow

Next to "Casting my vote was easy." wrote: Hard to read

Other comments: Good background colors could be changed. Did not care for the format.

Write-in instructions were difficult. Keyboard was awkward and unreliable.

Next to "There were too many steps in using this voting system." wrote: at the beginning—talked down to

Next to "I think that most people could learn to use this voting system very quickly." wrote: need to be familiar with computer

Next to "The ballot text was easy to read or hear." wrote: did not use of voice

System not first choice

Accessible Voting Systems Vendor Fair Survey Comments

Avante | Optical Voting System

continued

hearing

I like voting from home—If it was available on internet—I would like it.

cognitive/mental health

Next to “The ballot text was easy to read or hear.” wrote: just a little confusing to read

Voter thinks sending the ballot to the voters is the best.

People with disabilities would find this machine easy to use.

I liked it.

It was cute and fun.

none

Simple and easy system to use.

Ok, but write-ins I was dragging my fingers across wrong buttons

multiple

Couldn't vote. Not accessible for tactile impairment.

Ok, but write-ins I was dragging my fingers across wrong buttons

Accessible Voting Systems Vendor Fair Survey Results

ES&S | Automark

Number of People Surveyed	61	
Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.93	7.87
There were too many steps in using this voting system.	3.74	
I thought this voting system was easy to use.	4.03	8.07
The instructions for this voting system were difficult to understand.	3.79	
The buttons or touch screen were easy to use.	4.07	
It was hard to move around the ballot with this system.	3.67	
I think that most people could learn to use this voting system very quickly.	3.93	7.87
I found this voting system awkward or difficult to use.	3.78	7.57
I felt very confident that my vote was cast correctly with this voting system.	4.20	12.60
I would need help each time I used this voting system.	3.56	10.67
The ballot text was easy to read or hear.	4.00	
Casting my vote was easy.	3.98	
	46.31	77.25
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.82	

Accessible Voting Systems Vendor Fair Survey Comments

ES&S | Automark

mobility

Next to choice for "I felt very confident that my vote was cast correctly with this voting system." wrote: "!!!"

Other Comments: Excellent print out format! Great write-in process!

I thought it was good

It is a good machine...a great machine!

I love this system!

It was very easy to use. Top pick.

vision

Liked it because she could verify how she voted and there was no time limit.

Next to "I found this voting system awkward or difficult to use." wrote: slightly awkward

Next to "I would need help each time I used this voting system." wrote: until you learned it

Other Comments: Liked it but was not enthusiastic about it.

Didn't like the voice instructions...they are too fast to react to the instructions given. The voice itself should be a human voice because it takes a while to get "caught up". It should be a standard, recognized voice. Instructions should have built in pause to allow time to react.

Liked it because you could speed up reader's rate. Keypad was very user friendly. Did not like fact that when you speeded up reading, ballot started at beginning again.

Most people could use if they knew keypad. Liked because she could review and go back easily.

Next to "I thought this voting system was easy to use." wrote: volume & inflection problems

Next to "The instructions for this voting system were difficult to understand." wrote: a little difficult

Next to "The buttons or touch screen were easy to use." wrote: buttons a little awkward

Next to "I felt very confident that my vote was cast correctly with this voting system." wrote: anything electronic leaves you with some skepticism

Next to "I would need help each time I used this voting system." wrote: would need trial run

Other Comments: Awkwardness in adjust volume, rate and inflection.

Next to "I think that most people could learn to use this voting system very quickly." wrote: especially if computer savvy

Other Comments: I found it easier to learn on this as compared to some of the others I have tried today.

Next to "I felt very confident that my vote was cast correctly with this voting system." wrote: it's hard to know for sure if I can't see the ballot.

Next to "Writing-in a candidate was easy" wrote: it would be nice to be able to skip some of the letters.

Accessible Voting Systems Vendor Fair Survey Comments

ES&S | Automark

continued

vision *continued*

Liked it because it was basic and simple and had a printout of votes—for verification and for recounts and voter can see it for himself.

Mildly approve except for write-in

Next to “I would like to use this voting system in an election.” wrote: The best one here.

Next to “I felt very confident that my vote was cast correctly with this voting system.” wrote: because it is the only one that gives me a ballot in my hand

Other Comments: So far (I have done 4) this is the easiest to use

Next to “I found this voting system awkward or difficult to use.” wrote: except the write in was easy

Other Comments: I didn’t like the feeding ballot part. I didn’t like not being able to change speed. Verification system was cumbersome.

I like holding the ballot. It was easy to use. Lack of portability might be difficult for elderly.

Because it was simple. Felt secure in voted responses.

I liked this voting system because: instructions for navigating the system were so clear, also liked layout of keypad and Braille.

Instructions confusing

I like it because it was simple and quick.

Next to “I found this voting system awkward or difficult to use.” wrote: made for right-handed; need one for left-handed people

Liked because it looked like a regular ballot. Liked system very much.

Next to “I would need help each time I used this voting system.” wrote: You might need instruction the first couple times/ a little practice.

Other Comments: Liked it but would need more practice so you would not need instruction.

Very satisfactory all the way around. Liked being able to enlarge the print.

Going to a locaton that the [machine] was at.

Next to “I would need help each time I used this voting system.” wrote: Would need help to sign the ballot envelope.

Other Comments: I liked this system and was totally in love with it until I was told I would have to sign the ballot envelope. I was called into the elections office in November 2004 because my signature didn’t match.

Next to “Need Help Each Time” wrote: Earphones would have been helpful. Computer experience is a definite plus.

Other Comments: I liked this voting system because it has the voice of JAWS.

Accessible Voting Systems Vendor Fair Survey Comments

ES&S | Automark

continued

vision *continued*

Speech hard to understand, didn't like voice.

The system is too bulky for curbside voting. The interface is ok though.

I liked it because it has voice output and zoom-in and other neat stuff.

hearing

I didn't like this voting system because...Did not. I like voting from my home.

cognitive/mental health

I liked their use of a ballot familiar to me. I like the system I use now to vote and don't see a need for a change.

This was very easy to use. Best yet.

Easy to use. Fun machine. Fits needs better.

Too complicated. Hard to read with bifocals

I liked this voting system because...it was easy.

I feel this system will be extremely helpful to the american public and citizens of Oregon.

none

This was the best. You can zoom in, you can listen to the words on the screen if you need help reading, paper printout is great.

other

The initial instructions were a little challenging. Liked the touch screen. Liked the factor of having a punched ballot making me like everyone else.

It is easy to learn. I liked it because I could go back to review my ballot.

I liked it because it printed out a paper ballot.

Accessible Voting Systems Vendor Fair Survey Comments

ES&S | Automark

continued

multiple

Way too big to be portable and too slow in printing ballot.

Skips too easy

Liked the voice and seemed to be straight forward. Only drawback would have to go to machine rather than machine being brought to you.

Accessible Voting Systems Vendor Fair Survey Results

Hart InterCivic | eSlate

Number of People Surveyed	78	
Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.70	7.40
There were too many steps in using this voting system.	3.73	
I thought this voting system was easy to use.	3.75	7.51
The instructions for this voting system were difficult to understand.	3.68	
The buttons or touch screen were easy to use.	3.84	
It was hard to move around the ballot with this system.	3.62	
I think that most people could learn to use this voting system very quickly.	3.61	7.21
I found this voting system awkward or difficult to use.	3.47	6.94
I felt very confident that my vote was cast correctly with this voting system.	3.75	11.26
I would need help each time I used this voting system.	3.36	10.09
The ballot text was easy to read or hear.	3.91	
Casting my vote was easy.	3.92	
	43.35	71.31
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.28	

Accessible Voting Systems Vendor Fair Survey Comments

Hart InterCivic | eSlate

mobility

Easy, Fun

I would like a paper print out option.

Next to "The buttons or touch screen were easy to use." wrote: enter button could be larger

It was real nice

I didn't like this voting system because: I would never trust an electronic device/computer with my vote. I like Oregon's paper ballots.

I liked this system because it made voting fun but probably too difficult for most people with disabilities. Because this voting system required good hand dexterity which I do NOT HAVE.

vision

Next to "I found this voting system awkward or difficult to use." wrote: confusing takes time to learn—can be confusing

good system for people with no use of hands and visually impaired

Next to "I would need help each time I used this voting system." wrote: Headphones Yes, Keyboard No

would need to be able to get closer to read

examples made it fun to use

70 or younger people would love; older generation may have problem

little confusion at first with wheel; easy to overcome

Next to "I felt very confident that my vote was cast correctly with this voting system." wrote: for or against confusing; yes or no better

general maneuvering, sound clarity difficult to assess due to background noise

I liked the wheel and two human voices.

simplicity

smaller, easy condensed arrangement of buttons and options

Accessible Voting Systems Vendor Fair Survey Comments

Hart InterCivic | eSlate

continued

vision *continued*

well organized and fun to use

wheel navigation is not standard

Next to "The instructions for this voting system were difficult to understand." wrote: problem with volume (before summary review page couldn't hear)

Next to "The ballot text was easy to read or hear." wrote: distorted

likes shield to diffuse glare; did not like wheel button; background color was not consistent and hard to see words

dialing indent too shallow, causing finger to slip out; enter button hard to find for visually impaired; same with casting ballot; needs to make more differentiation

Next to "The ballot text was easy to read or hear." wrote: too soft voice

Next to "Easy to Read/Hear Text" wrote: too soft

good easy to understand speech

selection dial—time delay; easy to skip over choices

going back to check write-in awkward; more emphasis on casting

Next to "The instructions for this voting system were difficult to understand." wrote: voice poor quality

likes portability; must have good hand dexterity—could be intimidating for newly blind seniors

confusion as to place on ballot; was not clear that I had moved to another section

would need assistance with this system

1 voice for summary was too soft

2 don't like that someone else types in access number

3 write-in need help which I do not like

Found this system was one of the easiest to use (from what's available here)

tactile markings need to be more distinct

The voice was quite loud. An option to turn down volume.

manual dexterity

The wheel was uncomfortable

Accessible Voting Systems Vendor Fair Survey Comments

Hart InterCivic | eSlate

continued

cognitive/mental health

Buttons were easy to move

I liked the machine

Too much instruction to take in at the beginning. The rest of the system was great.

I like the vote by mail, which works for me.

none

The speech was too slow!

The voice paired with the response was very beneficial. May need to have some initial training, but should be fairly independent for most Braille users.

easy to use

the buttons were kind of difficult

I liked this system because the print was large enough to read.

other

Maybe a clicker on the dial (moved too easily)

I appreciated someone explaining the system.

multiple

did not like wheel—hard to manipulate

Too easy with wheel to skip over/miss a candidate.

I would work it good real.

It's real easy

easier than old styleless system

Accessible Voting Systems Vendor Fair Survey Results

IVS LLC | Inspire

Number of People Surveyed	26	
Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.69	7.38
There were too many steps in using this voting system.	3.58	
I thought this voting system was easy to use.	3.54	7.08
The instructions for this voting system were difficult to understand.	3.52	
The buttons or touch screen were easy to use.	3.80	
It was hard to move around the ballot with this system.	3.38	
I think that most people could learn to use this voting system very quickly.	3.50	7.00
I found this voting system awkward or difficult to use.	3.38	6.77
I felt very confident that my vote was cast correctly with this voting system.	3.96	11.88
I would need help each time I used this voting system.	3.64	10.92
The ballot text was easy to read or hear.	4.08	
Casting my vote was easy.	3.69	
	43.04	71.46
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.08	

Accessible Voting Systems Vendor Fair Survey Comments

IVS LLC | Inspire

mobility

Good verification process! I loved the print out that can be scanned.

It was easy and convenient, cool way to vote

vision

Liked because so easy to use and everyone uses a phone. Didn't like at the end when it said scan the number and she said that she didn't know how.

Next to "I would like to use this voting system in an election." wrote: but would be hard for people not knowing telephone keypad

Next to "I thought this voting system was easy to use." wrote: only if you know key

Next to "Writing-in a candidate was easy" wrote: it would take too long to write name

Other Comments: I like #5 to be able to cancel. Would need to know phone pad good. Needs instruction on keyboard before voting.

Next to "The instructions for this voting system were difficult to understand." wrote: need more information on backing up and revote

Next to "I felt very confident that my vote was cast correctly with this voting system." wrote: more errors using electronic

Other Comments: Overall liked it but thought they needed more instructions on going back and revoting.

Might be difficult if dyslexic. Could not find a way to cancel—finally found word "de-select" may be confusing

I liked this voting system because: it was the best system I've used out of 4 so far

Next to "The buttons or touch screen were easy to use." wrote: not big enough for visually impaired, larger would be easier

Other Comments: Dislike (keys were too small)

Liked it because it had a standard touch pad

Like because it is audible

manual dexterity

Too slow, delays between names.

cognitive/mental health

I didn't like this voting system because: it was incomprehensible with my disability

In a home situation this system would work quite well and be fairly easy to use provided there's not a lot of background noise from children etc. Best for single people or couples

Accessible Voting Systems Vendor Fair Survey Comments

IVS LLC | Inspire

continued

other

Next to "The instructions for this voting system were difficult to understand." wrote: more information on slowing speed

Next to "I would need help each time I used this voting system." wrote: wouldn't have help at home

Other Comments: Convenience in my own home. Would have to drive 30 miles to vote. Would like someone to call and talk through instructions.

multiple

It won't work

It does not real do.

Accessible Voting Systems Vendor Fair Survey Results

IVS LLC | Vote by Phone

Question	Average Score	Average Weighted Score
	35	
I would like to use this voting system in an election.	3.71	7.43
There were too many steps in using this voting system.	3.37	
I thought this voting system was easy to use.	3.34	6.69
The instructions for this voting system were difficult to understand.	3.43	
The buttons or touch screen were easy to use.	3.97	
It was hard to move around the ballot with this system.	3.70	
I think that most people could learn to use this voting system very quickly.	3.57	7.14
I found this voting system awkward or difficult to use.	3.20	6.40
I felt very confident that my vote was cast correctly with this voting system.	4.24	12.73
I would need help each time I used this voting system.	3.49	10.46
The ballot text was easy to read or hear.	4.12	
Casting my vote was easy.	3.94	
	43.40	72.20
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	2.64	

Accessible Voting Systems Vendor Fair Survey Comments

IVS LLC | Vote by Phone

mobility

I wouldn't vote using this system if my life depended on it and it was my only choice.

It was very hard to use

vision

I liked because it was familiar using a phone system. And allows you to vote alone.

One thing instructions did not say you could speed it or slow it down. Keypad instructions should be at the beginning of the process.

Too complicated

I liked this voting system because: Could easily go at my own speed

Voice was easy to understand

Instructions too hard

I liked

Liked jumping 5 letters at a time, pressing buttons to stop instructions; recognized the mans voice on the phone

Preview practice excellent, use any phone, record voice easy to understand

Liked phone based

I liked this voting system because: I could use my home phone. It was easier to hear than the other phone vote booth.

I didn't like this voting system because: slow process, cumbersome, difficult to write-in if visually impaired

Familiar with phone so it was easy

Like because it was easy to operate and understand

Slow entering write-in. Need to make it easy to get started

Too long of process, hard to go through ballot. Too many instructions a the beginning of.

I liked this voting system because...It was encouraging

Need more computer skills, need to identify star and #

Accessible Voting Systems Vendor Fair Survey Comments

IVS LLC | Vote by Phone

continued

vision *continued*

I liked this voting system because: instructions very clear, easy to hear. My favorite system, a hard act to follow.

cognitive/mental health

Very hard to listen to and follow directions

Next to "The buttons or touch screen were easy to use." wrote: didn't like it

Did not vote by phone, too confusing

other

Hard to hear, need more explanation on candidates.

I liked being able to go back and forth with instructions

multiple

Liked system because the ease of at home. Didn't like because instructions weren't good.

Accessible Voting Systems Vendor Fair Survey Results

PhonElect | Vote by Phone

Number of People Surveyed

44

Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.20	6.41
There were too many steps in using this voting system.	3.02	
I thought this voting system was easy to use.	3.25	6.50
The instructions for this voting system were difficult to understand.	3.21	
The buttons or touch screen were easy to use.	3.91	
It was hard to move around the ballot with this system.	2.69	
I think that most people could learn to use this voting system very quickly.	3.30	6.60
I found this voting system awkward or difficult to use.	2.93	5.85
I felt very confident that my vote was cast correctly with this voting system.	3.38	10.14
I would need help each time I used this voting system.	3.05	9.14
The ballot text was easy to read or hear.	3.86	
Casting my vote was easy.	3.42	
	37.93	62.75
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.58	

Accessible Voting Systems Vendor Fair Survey Comments

PhonElect | Vote by Phone

mobility

I like the verification code option.

I completely dislike this system, it's like listening to the phone company—ugh! no thanks!

It would be easy for me

vision

I could not verify my vote before I cast it. I didn't like not being able to change my after voting. Getting into the system was cumbersome and difficult.

I didn't like this voting system because: I couldn't control movement through ballot and couldn't review entire ballot upon conclusion.

This is a very good system. You don't have to "look" at things with your eyes.

Only phone system I'd use but would prefer to use regular ballot.

appreciate phone system. Seems to have security. Like choice to speak or push button. Didn't like not enough info about race before choosing. Steps for write-in was easiest today because I could speak it. This system would be too complicated for elderly or newly-blind folks.

I found this to be the easiest so far. Superior system to other phone system I tested.

voice recognition was poor

Next to "I thought this voting system was easy to use." wrote: too slow

manual dexterity

easy

multiple

I would like to talk.

Accessible Voting Systems Vendor Fair Survey Results

Sequoia | AVC Edge

Question	Average Score	Average Weighted Score
I would like to use this voting system in an election.	3.62	7.24
There were too many steps in using this voting system.	3.56	
I thought this voting system was easy to use.	3.81	7.63
The instructions for this voting system were difficult to understand.	3.69	
The buttons or touch screen were easy to use.	3.96	
It was hard to move around the ballot with this system.	3.55	
I think that most people could learn to use this voting system very quickly.	3.64	7.27
I found this voting system awkward or difficult to use.	3.58	7.16
I felt very confident that my vote was cast correctly with this voting system.	4.02	12.05
I would need help each time I used this voting system.	3.36	10.09
The ballot text was easy to read or hear.	3.93	
Casting my vote was easy.	3.82	
	44.20	73.55
Writing in a Candidate was easy <i>this question appeared on the user surveys but was not included in the final score</i>	3.57	

Accessible Voting Systems Vendor Fair Survey Comments

Sequoia | AVC Edge

mobility

Didn't see the write-in option. Liked the box size and the adjustability of screen.

This system, although I cannot actually pinpoint the exact reason, seemed awkward. Especially the write-in part. Print too small.

really liked it

fun easy different

like it

vision

I really liked this option.

Takes too much manipulation to keypad.

voice was very loud

volume too low; not clear—background noise

reasonably straightforward

print too small—unable to use on actual ballot; please have large print

person needs practice to use it and needs an instructor to use it.

arrow buttons modified; use 4 distinct shapes

hard to know what button to push for next step. (remembering)

Audio—had too much static—background voice was clear

confusing; button menu confusion

enjoyed using it.

easy to work with

Next to "I would need help each time I used this voting system." wrote: need a setup
Other Comments: (no problems) like a computer—friendly and easy

Accessible Voting Systems Vendor Fair Survey Comments

Sequoia | AVC Edge

continued

vision *continued*

paper tape unavailable to read for sight impaired; possible Braille

Because of the large print it was very easy.

Next to "The buttons or touch screen were easy to use." wrote: larger font on that one
Next to "I found this voting system awkward or difficult to use." wrote: just because of font size
Other coments: The machine would be easier if it was in bigger font size.

liked standard Braille

small size; simple to use; immediate vocal response

Confused on thing to preview ballot—in previewing I changed my ballot and hadn't wanted to do that.

I seemed to have trouble navigating.

I didn't like this voting system because: It was slow to respond to choices/cancellation.

Too difficult for newly visually-impaired. I like that it is not new system. Has paper trail.

cognitive/mental health

easy to use

larger size print

easy

it's easy and easy to read because you can see it on screen

it was self explainable

liked it

easy to use

don't like voting machines; like vote by mail

They gave opportunity to vote for women.

very easy to use

Accessible Voting Systems Vendor Fair Survey Comments

Sequoia | AVC Edge

continued

none

print was easy to read and changes were easy to make

This was great. But it needs to have audio with the visual for people who do not read well and could use help with reading but also need the visual.

height of machine made it difficult

other

liked verification of vote—cast electronically immediately

multiple

good help hear.

Accessible Voting Systems Vendor Fair Survey Results

VoteHere | Sentinel

Number of People Surveyed		3	
Question	Average Score	Average Weighted Score	
I would like to use this voting system in an election.	3.67	7.33	
There were too many steps in using this voting system.	4.33		
I thought this voting system was easy to use.	4.33	8.67	
The instructions for this voting system were difficult to understand.	4.33		
The buttons or touch screen were easy to use.	3.33		
I think that most people could learn to use this voting system very quickly.	4.33	8.67	
I found this voting system awkward or difficult to use.	4.33	8.67	
I felt very confident that my vote was cast correctly with this voting system.	3.67	11.00	
I would need help each time I used this voting system.	4.33	13.00	
The text was easy to read or hear.	3.00		
		38.67	71.33
<i>total possible</i>		<i>50</i>	<i>90</i>
Writing in a Candidate was easy	3.80		
<i>this question appeared on the user surveys but was not included in the final score</i>			

Accessible Voting Systems Vendor Fair Survey Comments

VoteHere | Sentinel

mobility

I needed larger print and larger boxes.

cognitive/mental health

Liked because of verification system

multiple

Sentinel verification system can't "read" receipt machine provides. Will likely cause too many questions.