

Usability testing report

Ranked choice paper ballots

Goals

To discover which paper ballot type is easiest to complete by many kinds of voters.

To understand why voters prefer one ballot type over the other.

Activities

Each participant was asked to mark three different ballot styles (*Rank 3*, *Handwritten Ranks* and *Grid*) and then complete a short survey and a brief interview on their ballot preference and reasons for their preferences.

Participants

112 participants in two locations in downtown Denver.

Dates

December 11-13, 2017

In this report

[Summary](#)

[Research implications](#)

[Observation details](#)

[Rank 3 ballot style was most preferred by participants](#)

[Ballot preference depended on different criteria](#)

[About this research](#)

[Methodology](#)

[Testing materials](#)

[Interview materials](#)

[Participants](#)

Summary

After marking all three ballot styles, each participant was asked to complete a short questionnaire with choice questions.

“Which ballot is easiest to use?”

- 44% of participants found the *Rank 3* ballot style easiest to use.
- 34% of participants found the *Handwritten Ranks* ballot style easiest to use.
- 21% of participants found the *Grid* ballot style easiest to use.

“Which ballot is most difficult to use?”

- 65% of participants found the *Grid* ballot style hardest to use.
- 20% of participants found the *Handwritten Ranks* ballot style hardest to use.
- 15% of participants found the *Rank 3* ballot style hardest to use.

Those who preferred the *Rank 3* ballot style skewed younger than those who preferred the *Handwritten Ranks* and *Grid* ballot style.

“Ideally, how many candidates would you like to rank?”

- 58% of participants said they would like to rank between 1 and 3 candidates.
- 36% of participants said they would like to rank between 1 and 6 candidates.
- 6% of participants said they would like to rank more than 6 candidates.

Following the questionnaire, the Center for Civic Design conducted short interviews with each participant to understand the reasons behind their listed choices.

We discovered that preferences are influenced by which ballot style encouraged participants to rank their preferred number of candidates. Almost all participants felt confident their vote will be counted on their preferred ballot suggesting best design practices and clear instructions worked well across all three ballot styles.

We also found a correlation between how many candidates a participant actually ranked (not, how many candidates they would like to rank) and the ranking constraints (number of ranks offered) of the ballot itself.

- When using the *Rank 3* ballot, 96% of participants ranked all 3 candidates.
- When using the *Handwritten Ranks* ballot, 46% of participants ranked 3 candidates, 36% of participants ranked all 10 candidates.
- When using the *Grid* ballot, 26% of participants ranked 3 candidates, 54% of participants ranked all 10 candidates.

Research implications

Voters felt confident using their preferred ballot style. All three ballots were designed using best practices. We also incorporated RCV ballot instructions that have been updated based on our usability testing during the last year and a half. Our data shows that people using the *Rank 3*, *Handwritten Ranks*, and *Grid* style ballots expressed similar levels of confidence that their vote would be counted.

Implications

- Good layout and clear instructions affect *how* voters mark their ballots, irrespective of the number of ranking choices they faced.
- Incorporating best design practices instills confidence in voters that they voted as intended, and that their vote will count.

The number of rankings offered on a ballot shape voter behavior. People rank more candidates on ballot styles that offer more choices. People seem driven to rank as many candidates as they're presented, not just a subset.

Implications

- If the number of candidates to rank is set in law or policy, choose a ballot style based on corresponding number of ranking options offered.
- Ballot instructions and a voter guide that emphasizes ranking is a choice is not sufficient to give voters confidence to rank only as many as they please.

Ballot preferences are based on how many candidates voters would like to rank. There is a correlation between ballot preference and the number of rankings a participant preferred to rank on a ballot.

Implications

- The majority of the voters in this and all of our other usability testing would be satisfied ranking three candidates on an RCV ballot.

- For people who want to rank more than 3 candidates, the *Handwritten Ranks* ballot style is preferred over the *Grid*. Concerns over machine legibility of the *Handwritten Ranks* ballot can be addressed by using a digital interface¹.
- If the goal is to cater to young people, the data skews sharply towards the *Rank 3* ballot style.

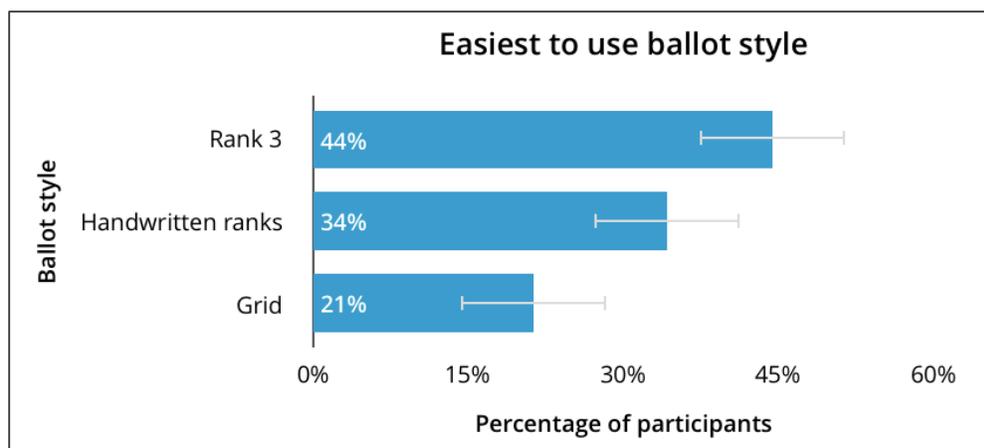
¹ Australia adopted RCV for some of its elections over a century ago. The country has adopted the *Handwritten Ranks* ballot style for voting. Interested jurisdictions in the US can look to Australia for examples of how to deal with the issue of machine legibility of Handwritten Ranks ballots.

Observation details

Rank 3 ballot style was most preferred by participants

- 43% of participants said they found the *Rank 3* ballot style easiest to use.
- 33% of participants found the *Handwritten Ranks* ballot style easiest to use.
- 21% of participants found the *Grid* ballot style easiest to use.

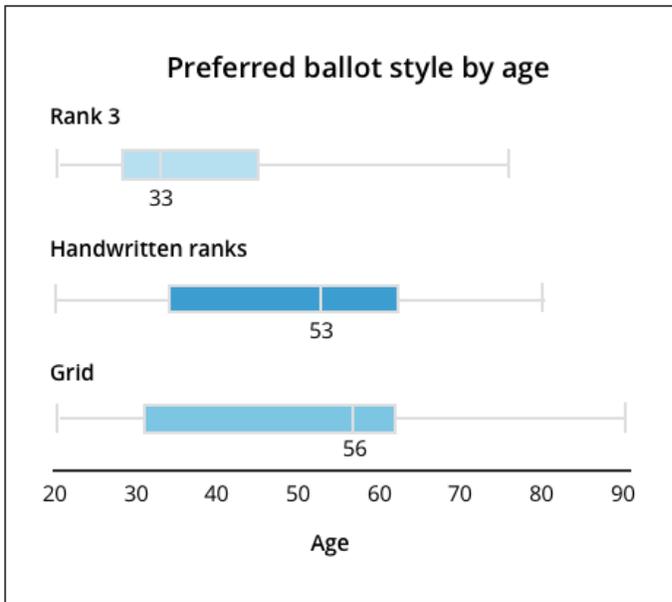
The differences between these ballot styles are statistically significant².



$\chi^2(6) = 150.875, p < 0.001$

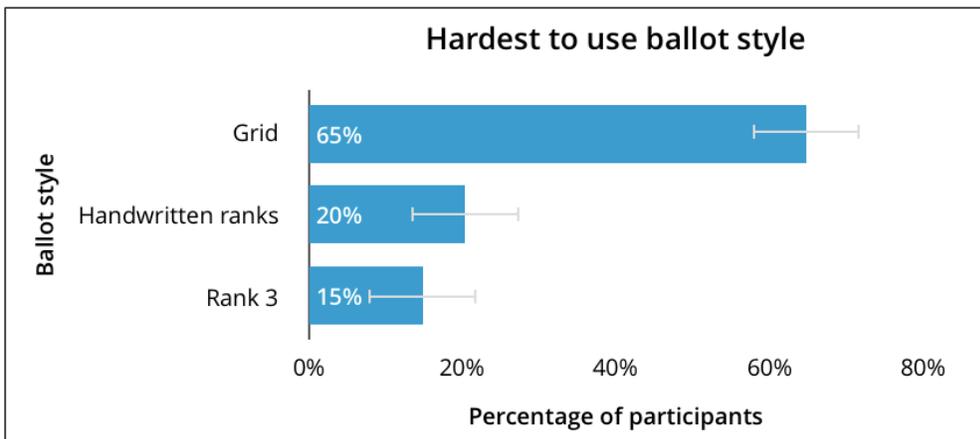
Voters who liked the *Rank 3* ballot style skewed younger (median age is 33) compared than those that preferred the *Grid* style ballot (median age is 56).

² A statistically significant result is one that is very unlikely due to chance. All of the findings we have presented in this paper are statistically significant, albeit with different “p-values.” The lower the p-value, the less likely the results are due to random chance. P-values less than 0.001 are almost certainly not due to chance. P-values near 0.05 are on the edge: we’re pretty sure they not due to chance, but not quite as confident.



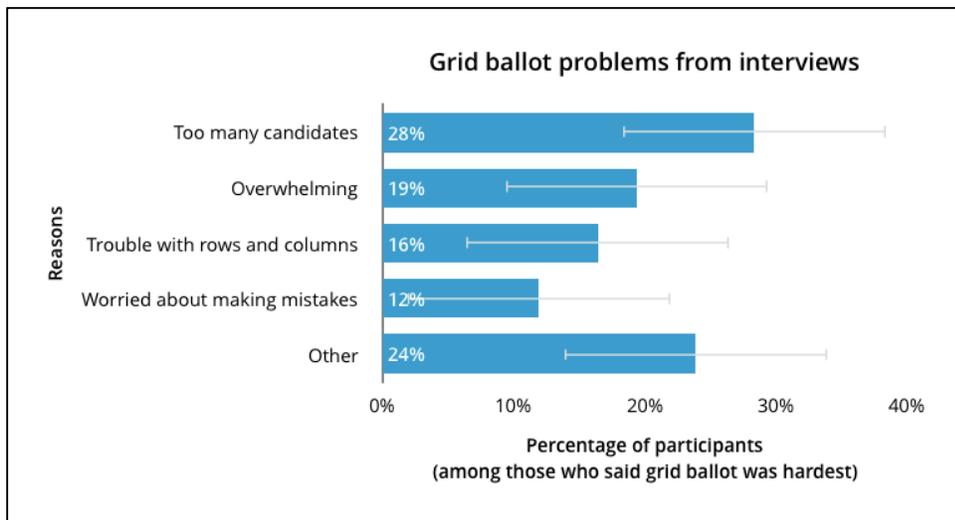
$\chi^2(3) = 11.139, p = 0.011$

Most participants found the *grid* ballot style hardest to use



$\chi^2(7) = 281.286, p < 0.001$

63% of participants found the *Grid* ballot style hardest to use. The differences between these ballot styles are also statistically significant.



In interviews among people who said the grid ballot was most difficult:

- 28% said the grid ballot offered too many candidates
- 19% said it was overwhelming
- 16% said they had trouble following the rows and columns
- 12% said they made mistakes (or were worried they would)
- 24% cited other issues like the grid evoking bad memories of standardized tests, feeling forced to rank too many candidates, it feeling hard to rank a few, paper waste or the instructions being unclear.

At first glance, reducing the number of candidates might make the grid easier to use. However, there are two reasons to believe the grid's problems are deeper:

- The *handwritten* ballot style offered the same number of candidates, but only 18% of grid users complained it had too many.
- In sum, 71% of people who found the ballot hard to use had significant issues that were not related to the number of ballots. A sampling of representative quotes:

It's more daunting and intimidating. Visually, it's terrible.

It was too much. Extremely complicated.

There's so much sh** on there, it's hard to tell. It looks like a game of space invaders.

Ballot preferences depended on different criteria

In the interviews, we learned that participants based their preferences between the ballot styles on three criteria:

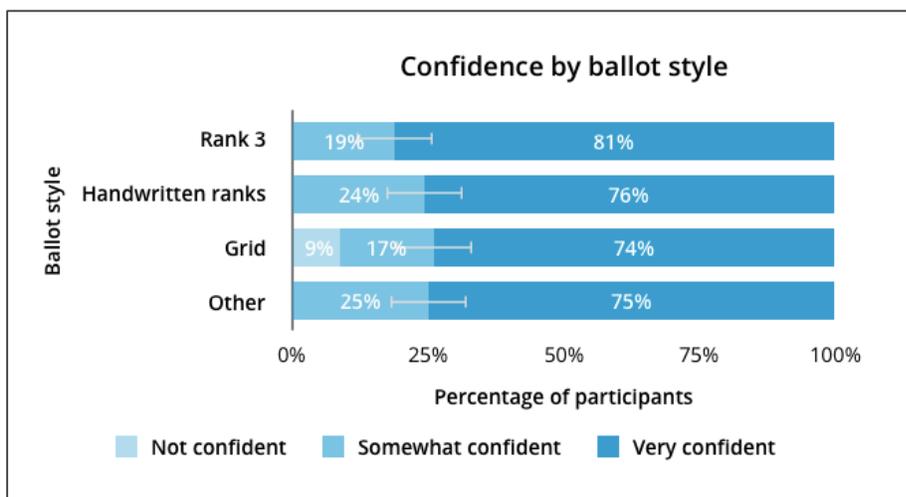
- Ballot layout
- How many candidates to rank
- Machine readability and security

Below are details of how participants determined their ballot preferences based on each criterion.

Ballot layout

Majority of our participants felt confident that they marked their preferred ballot correctly.

The table below shows that participants were comparably “very confident” in using their ballot of preference.



In this study, feedback on ballot layouts matches data that CCD has collected in the past on the same ballot styles, suggesting consistency in voter concerns about layout. Interestingly, while some participants voiced personal concerns, many were concerned that “other people” might make mistakes listed below.

Rank 3 ballot – Some participants were confused by seeing candidate names repeated in three columns. They were concerned about duplication. Others liked this style because the ranking columns with candidates was already organized for them.

"It makes it clearer that you don't have to vote for more than 3."

"There is too much information all over the place."

- *Handwritten Ranks* ballot – Some participants made errors filling in the boxes – instead of writing numbers, they checked or crossed off a box. Participants liked this ballot because it took up least amount of space on the page and so looked less overwhelming.

"I can write a number quicker than filling in an oval. It's more natural to rank with numbers. And there's less on the page."

"It's harder to do a direct comparison. But it was fairly easy."

- *Grid* ballot – Many participants found the layout difficult to follow because it required managing rows and columns simultaneously. Few participants found marking their choices visually confusing because for example, their 1st rank candidate was on the second-last row. Others liked this style because it was familiar to them.

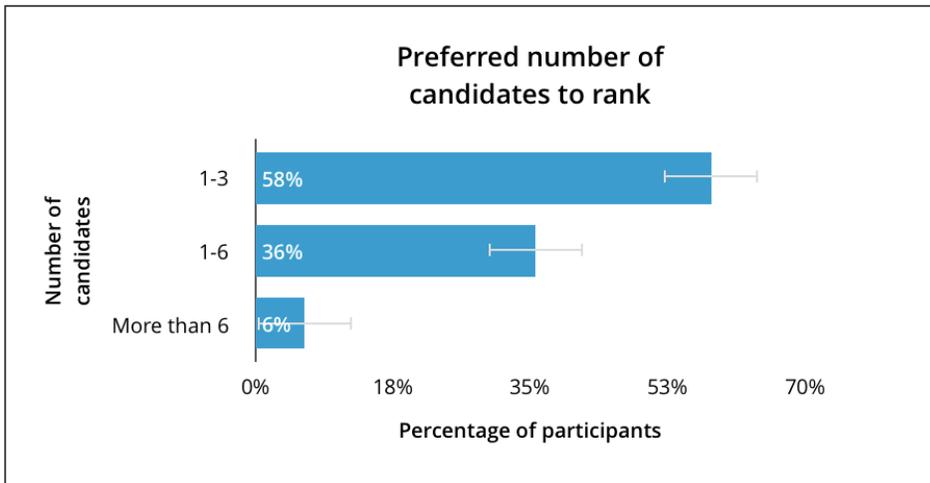
"You can see everything at one time."

"There is an X and a Y graph, you have to look across both and then there are 10 options!"

How many candidates to rank

- 58% of participants said they would like to rank between 1 and 3 candidates.
- 36% of participants said they would like to rank between 1 and 6 candidates.
- 6% of participants said they would like to rank more than 6 candidates.

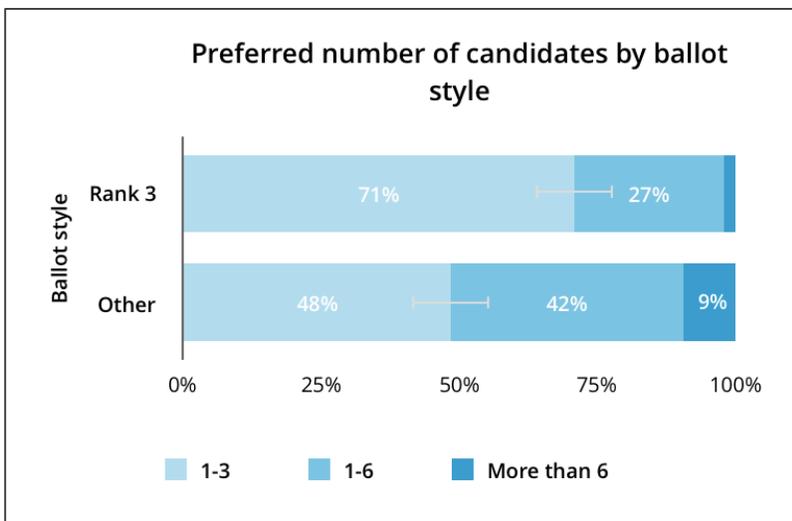
These differences in preference are strongly statistically significant.



$\chi^2(2) = 45.339, p < 0.001$

There is a strong connection between what participants would like to do (“Ideally, how many candidates would you like to rank?”) and which ballot style encouraged them to do that.

Most participants who found the *Rank 3* ballot style easiest to use also stated that they would ideally like to rank no more than 3 candidates on a ballot.



$\chi^2(2) = 6.456, p = 0.040$

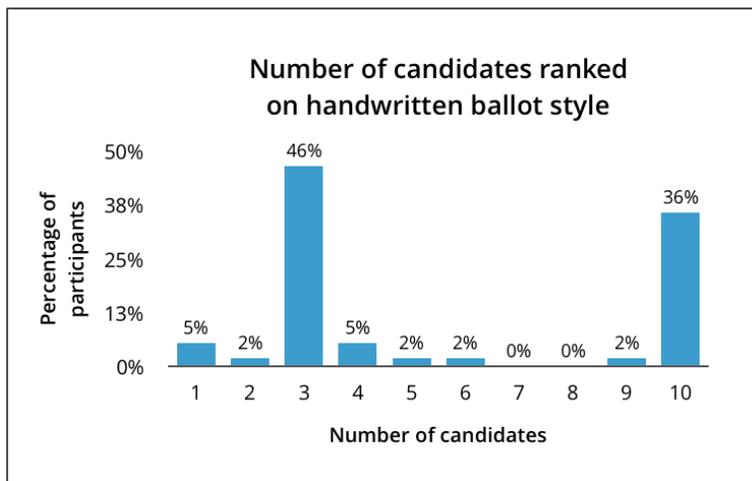
“I like it [Rank 3] because it’s giving me the top 3 candidates, narrowed down. Don’t need to waste my time with three other guys. Three can break a tie.”

Put another way, our data broken down by ballot style suggests that generally ranking constraints of a ballot shape voter behavior.

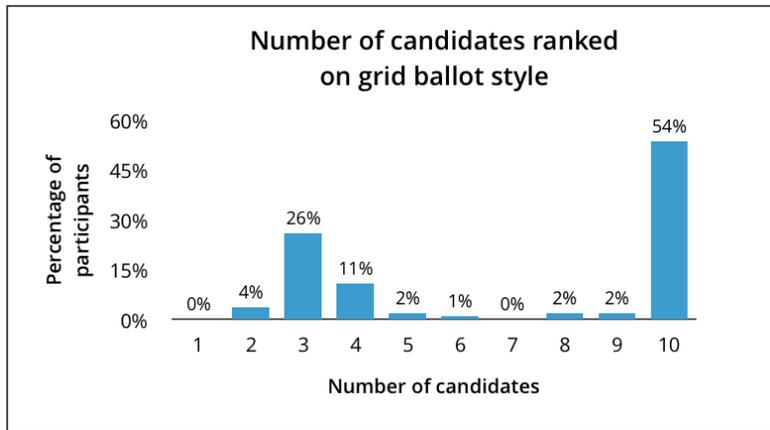
In interviews, many participants confirmed that they felt compelled to rank up to 10 candidates on the *Handwritten Ranks* and *Grid* ballots in spite of ballot instructions and the voter guide clarifying that ranking is a choice.

“I don't want to vote for none of these guys, but I had to.”

- 96% of our participants who used the *Rank 3* ballot ranked all three candidates.
- When using the *Handwritten Ranks* ballot, most participants ranked either three or ten candidates.



- When using the *Grid* ballot, most participants ranked all ten candidates, although a large minority rank only three.



This data also suggests strong leanings towards only two ranking preferences – ranking 3 candidates, and ranking 10 candidates.

Machine readability and accuracy

In interviews, those participants who expressed concern about the *Handwritten Ranks* ballot style focused on its weakness to be read correctly by ballot counting machines. On the other hand, a few participants noted that writing by hand was easier and quicker than filling in an oval completely.

Few participants noted it might be easy to manipulate numbers or fill in empty boxes on this ballot. Some of these concerns about security can be attributed to the “newness” of this ballot style.

"This [Handwritten Ranks ballot] gave me less confidence that my vote would be recorded correctly."

About this research

This research was conducted between Dec 11 and Dec 13, 2017 in downtown Denver, Colorado. We were at the Denver Public Library on Dec 11 and 12, and the Alliance Center on Dec 13. These two locations gave us access to a wider and more diverse demographic for testing the ballots.

Project goals

- To determine voter preferences between the *Rank 3*, *Handwritten Ranks*, and *Grid* ballot styles.

Project objectives

- To conduct a usability study of three versions of RCV paper ballots with voters.
- To collect quantitative data that supports findings on voter preferences between the three ballot styles.
- To create documentation that supports reasons for voter preferences between the three ballot styles.

Project team

At each site, we had four helpers who worked with the CCD team to recruit participants through street intercepts on the days of testing. They also helped put up posters promoting our testing events in downtown Denver, and took turns managing foot traffic inside the rooms on the days of testing.

Two CCD researchers, Taapsi and Colin, oversaw the research which included planning and preparing all the materials in advance of testing, answering participant questions about RCV at the time of testing, administering the questionnaire and conducting a qualitative interview with each participant at the end of their test.



From L to R: Kunda (helper), Dee (helper), Olivia (helper), Colin (CCD team) and Linda (helper)

Room setup

The testing room was divided into “stations” that made our testing streamlined and efficient. There was always one helper in the testing room to welcome participants as well as guide them to the testing tables. The three remaining helpers were in charge of recruiting participants and escorting them to the testing room. There was a “change of guard” in the testing room every hour so that all helpers took turns with all tasks.

When traffic built up, we had two helpers in the testing room to welcome participants, hand out materials and direct them to their testing tables.

Welcome table. One helper manned this table at all times. At this table, a participant was allotted a ballot order number, and given a voter guide and candidate sheet to read and make notes on before the actual testing of ballots.

Testing tables. At any time, we had between 2 – 5 testing tables so that we could accommodate up to 5 participants at a time. At each table, a participant was introduced to a pre-determined order of ballots to complete in private. If a participant had a question, either the helper or a member of the CCD team assisted with answering those questions.

Interview tables. Two tables in the room were designated interview tables. After a participant completed marking the ballots, a helper escorted the participant along with his/her materials to one of the two interview tables where either Colin or

Taapsi had each person first fill out a short questionnaire and then have a quick interview about their choices.

“Thank you” table. After marking their ballots and doing the questionnaire and interview, participants were treated to free coffee and doughnuts on their way out.



Testing room in Denver Public Library, Dec 11 and 12



Testing room at The Alliance Center, Dec 13



Linda Templin, one of our helpers, at the Welcome desk.



Colin, a CCD team member, conducting a participant interview

Methodology

Each participant tested all three ballot styles in a random order assigned to them. Before testing the ballots, participants were given an RCV voter guide as well as a mock candidate sheet from which to select candidates to rank in the RCV contests. These two additions to the testing process allowed us to mimic a real election experience as much as possible.

Once participants had read over the materials, they proceeded to mark each ballot style in the order they were assigned. For the first ballot they marked, they started by marking a front page of non-RCV contests then continued to the RCV contest. This allowed us to once again reflect a real-life situation where RCV and non-RCV contests would be found on the same ballot.

After a participant completed all three ballot styles, Taapsi or Colin administered a short questionnaire that asked about preferences in ballot style, number of preferred ranks, and other pertinent questions to this study. Based on their responses in the questionnaire, the CCD researcher then spent 5 – 10 minutes conducting a short qualitative interview with each participant to dig deep into their preferences and selections on the questionnaire.

Participants were treated to free doughnuts and coffee at the end of their session as a thank you for their time.

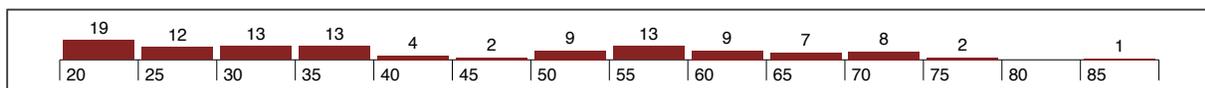
Participants

We tested with 112 participants over 3 days in December 2017. This test focused on a broadly representative sample that was recruited around two locations in downtown Denver – Denver Public Library and the Alliance Center. Overall, the Denver Public Library gave us access to a more racially and economically diverse demographic – participants here were recruited almost entirely through street intercepts by our helpers. Some participants were members of the library who had learned of the study through word of mouth.

Participants at the Alliance Center were recruited through a combination of street intercepts, convenience sampling (there is a public café attached to the Center) and word of mouth (the Center’s events coordinator sent out an email to corporate tenants in the building informing them of the research). As we expected, there were more White participants recruited at the Alliance Center compared to the Denver Public Library.

Our pool of participants includes strong numbers for young voters, some Spanish-speakers, as well as a large chunk of engaged voters. “Engaged voters” for this study are defined as those who have voted at least once in the past two years. It did not focus on low-propensity voters or those needing language assistance. Jurisdictions conducted a similar study as this might need to do extra work to target specific population groups depending on their community make-up.

- Participants were between 20 and 85 years of age.

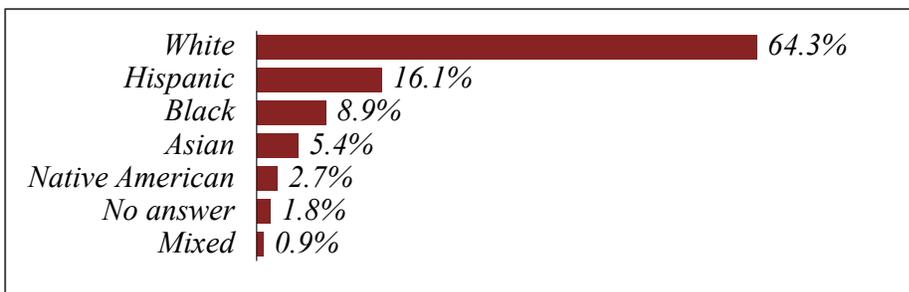


Participant age

- 83 participants spoke only English, 12 were bilingual in English and Spanish, the remaining participants spoke at least one other language in addition to English.



- 64% of participants identified as White, 16% as Hispanic, 9% as Black, 5% as Asian, the remaining 6% were Native American, Mixed or didn't identify with any race or ethnicity. Our sample aligns somewhat closely with Denver's county-wide 2010 census of 69% White, 32% Hispanic, 10% Black or African American and 3% Asian or Asian-American population demographic.

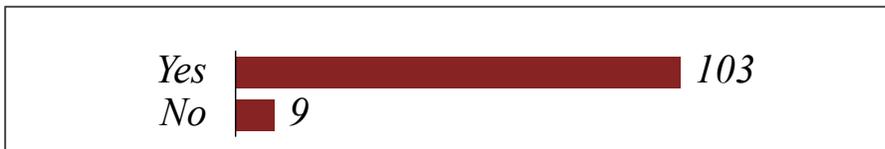


- 101 participants (or 90%) listed no reading, physical or cognitive disabilities³, 2 participants each identified as having attention deficit disorder, walking issues and a combination of disabilities, the remaining listed other disabilities.

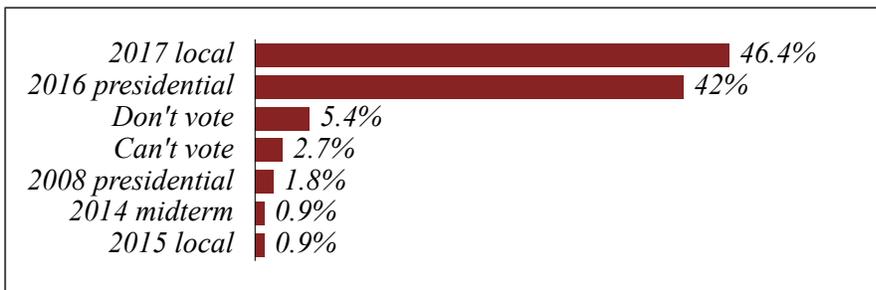
³ This test was aimed at paper ballots so did not focus on people with disabilities that affect their ability to perceive a paper ballot.



- 103 participants were registered voters⁴.



- 46% of participants voted in the 2017 local elections in Denver⁵, 42% voted last in the 2016 presidential election⁶.



⁴ This test was primarily focused on voters - those who have experienced what a ballot looks like and how to mark it. This is because we view the introduction to RCV as a transition, not a first-time voting experience. Accordingly, participant recruiting mainly targeted voters though we chose not to deny non-voters the opportunity to participate in testing if they expressed interest to do so.

⁵ Not all municipalities in Denver had a local election in 2017.

⁶ 2017 Denver city and county voter turnout was 30%. 2016 city voter turnout for the presidential election was also 30%. Data shows that our sample size skewed towards more avid voters in general.

Testing materials

Ballot styles, including one non-RCV ballot page

Demonstration Ballot for Testing Denver, Colorado General Election Tuesday, November 7, 2018		1/2	
Instructions Making selections  <p>Fill in the oval to the left of the name of your choice. You must blacken the oval completely, and do not make any marks outside of the oval. You do not have to vote in every race.</p> <p>i Do not cross out or erase, or your vote may not count. If you make a mistake or a stray mark, ask for a new ballot from the poll workers.</p> Optional write-in  <p>or write-in: Ann</p> <p>To add a candidate, fill in the oval to the left of "or write-in" and print the name clearly on the dotted line.</p>	US Senator Vote for 1 <input type="radio"/> Victor Martinez Orange Party <input type="radio"/> David Platt Yellow Party <input type="radio"/> Heather Portier Tan Party <input type="radio"/> or write-in	County Commissioners Vote for 2 <input type="radio"/> Harvey Smith Orange Party <input type="radio"/> Randall Eagle Orange Party <input type="radio"/> Reid Davis Yellow Party <input type="radio"/> Barbara Shry Yellow Party <input type="radio"/> Carole Barker Tan Party <input type="radio"/> Hugh Feiser Tan Party <input type="radio"/> Charles Qualey Lime Party <input type="radio"/> Donald Rupp Silver Party <input type="radio"/> write-in <input type="radio"/> write-in <input type="radio"/> write-in <input type="radio"/> write-in	
		US Representative Vote for 1 <input type="radio"/> Glen Tawner Orange Party <input type="radio"/> Carroll Forrest Yellow Party <input type="radio"/> or write-in	
		State Senator Vote for 1 <input type="radio"/> Andrea Solis Orange Party <input type="radio"/> Amos Keller Yellow Party <input type="radio"/> or write-in	
		Member of the State Assembly Vote for 1 <input type="radio"/> Edward Shiplett Orange Party <input type="radio"/> Marty Talarico Yellow Party <input type="radio"/> or write-in	
	Registrar of Deeds Vote for 1 <input type="radio"/> Lillian Cohen Yellow Party <input type="radio"/> or write-in	Measure F: Franklin County Vehicle Removal program Vote yes or no <p>Should the Franklin County Vehicle Removal Program for the removal of abandoned, wrecked, dismantled, or inoperative vehicles, paid for with vehicle registration fees of \$1 per vehicle (and an additional \$2 for certain commercial vehicles) be renewed for a ten-year term beginning July 1, 2017?</p> <input type="radio"/> Yes <input type="radio"/> No	
		Remember to vote both sides of the ballot →	

Non-RCV contest page



Instructions for Ranked Choice Voting

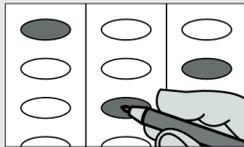
Making selections

Rank candidates in the order of your choice.

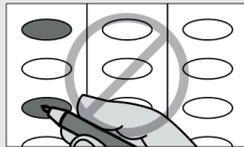
You may rank as many or as few candidates as you wish.

Fill in the oval...

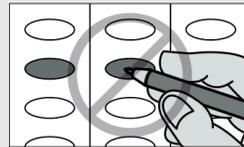
- In the 1st column for your first 1st choice.
- In the 2nd column for your 2nd choice.
- In the 3rd column for your 3rd choice, and so on



Fill in the oval completely.



No more than 1 oval in a column.



No more than 1 oval for a candidate.

Mayor

Rank up to 10 candidates.
 Mark no more than 1 oval in each column.

	First choice	Second choice	Third choice	Fourth choice	Fifth choice	Sixth choice	Seventh choice	Eighth choice	Ninth choice	Tenth choice
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Frederick Sharp Orange Party	<input type="radio"/>									
Luis Garcia Orange Party	<input type="radio"/>									
Charles Layne Yellow Party	<input type="radio"/>									
Andrew Kowalski Yellow Party	<input type="radio"/>									
Alex Wallace Purple Party	<input type="radio"/>									
Eric Savoy Purple Party	<input type="radio"/>									
Barbara Williams Tan Party	<input type="radio"/>									
Lillian Cohen Lime Party	<input type="radio"/>									
Ann Windsock Independent	<input type="radio"/>									
Markos Miller Silver Party	<input type="radio"/>									

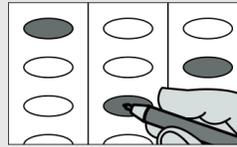
Thank you for voting!
 Please turn in
 your finished ballot

Grid ballot style



Instructions for Ranked Choice Voting

1. Pick your 1st choice candidate and completely fill in the oval next to that candidate under First Choice.
2. If you have a 2nd choice candidate, fill in the oval next to that candidate under Second Choice.
3. Mark your 3rd choice candidate, if you have one, the same way under Third Choice.



- ! Mark **at least one candidate** for your vote to count.
- ! If you make a mistake ask for a new ballot. Otherwise your vote may not count.

- ! All three choices must be different from each other.
- ! Don't mark more than one in each column.

Mayor

1 First Choice Fill in one oval	2 Second Choice Fill in one oval	3 Third Choice Fill in one oval
<input type="radio"/> Frederick Sharp Orange Party	<input type="radio"/> Frederick Sharp Orange Party	<input type="radio"/> Frederick Sharp Orange Party
<input type="radio"/> Luis Garcia Orange Party	<input type="radio"/> Luis Garcia Orange Party	<input type="radio"/> Luis Garcia Orange Party
<input type="radio"/> Charles Layne Yellow Party	<input type="radio"/> Charles Layne Yellow Party	<input type="radio"/> Charles Layne Yellow Party
<input type="radio"/> Andrew Kowalski Yellow Party	<input type="radio"/> Andrew Kowalski Yellow Party	<input type="radio"/> Andrew Kowalski Yellow Party
<input type="radio"/> Alex Wallace Purple Party	<input type="radio"/> Alex Wallace Purple Party	<input type="radio"/> Alex Wallace Purple Party
<input type="radio"/> Eric Savoy Purple Party	<input type="radio"/> Eric Savoy Purple Party	<input type="radio"/> Eric Savoy Purple Party
<input type="radio"/> Barbara Williams Tan Party	<input type="radio"/> Barbara Williams Tan Party	<input type="radio"/> Barbara Williams Tan Party
<input type="radio"/> Lillian Cohen Lime Party	<input type="radio"/> Lillian Cohen Lime Party	<input type="radio"/> Lillian Cohen Lime Party
<input type="radio"/> Ann Windsock Independent	<input type="radio"/> Ann Windsock Independent	<input type="radio"/> Ann Windsock Independent
<input type="radio"/> Markos Miller Silver Party	<input type="radio"/> Markos Miller Silver Party	<input type="radio"/> Markos Miller Silver Party

Thank you for voting!
 Please turn in
 your finished ballot

Pick 3 ballot style



**Instructions for
Ranked Choice Voting**

Making selections

Rank candidates in the order of your choice.

You may rank as many or as few candidates as you wish.

**In the box next to
the candidate**

- Write 1 for your 1st choice
- Write 2 for your 2nd choice
- Write 3 for your 3rd choice, and so on



Give each candidate you rank a different number.

Mayor

- Frederick Sharp**
Orange Party

- Luis Garcia**
Orange Party

- Charles Layne**
Yellow Party

- Andrew Kowalski**
Yellow Party

- Alex Wallace**
Purple Party

- Eric Savoy**
Purple Party

- Barbara Williams**
Tan Party

- Lillian Cohen**
Lime Party

- Ann Windsock**
Independent

- Markos Miller**
Silver Party

**Thank you for voting!
Please turn in
your finished ballot**

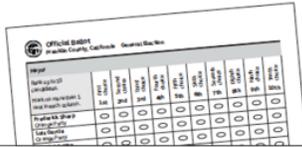
Handwritten ranks ballot style

Voter guide

Ranked Choice Voting What and why?

What is it?

With Ranked Choice Voting, you mark your preferences for the candidates in order, instead of just choosing one.



Why use it?



Saves Money

There don't have to be runoff elections if no candidate gets enough votes to win in the first round. Voters have already indicated their second preference.



Stronger Voices

Voters have a way to express preferences while still voting for their first choice.



Broaden Participation

Candidates have to appeal to people who might initially vote for someone else.

Marking your choices with Ranked Choice Voting

- Do I need to rank all candidates?**
 No, you do not have to rank all candidates. You should rank **at least one candidate** as your 1st choice.

 Then, you can rank as many as you want of the other choices available.
- How does it affect my 1st choice?**
 Ranking other candidates does not affect your vote for your 1st choice.

Only your 1st choice is counted in Round 1. Your 2nd, 3rd, 4th and other choices will be considered only if your 1st choice does not win.

- Under what circumstances can my first choice be eliminated?**
 As the votes are counted, the candidate with the fewest votes is eliminated.

 If your 1st choice is eliminated, your 2nd choice will be counted, and so on.

 The elimination continues until there is a winner.

Learn more about how RCV works at www.elections.gov

How is the winner determined? Counting ballots with Ranked Choice Voting

The first candidate who gets 50% of the final votes wins. Ballots are counted in rounds until a candidate wins.

Round 1

Only your vote for your 1st choice is counted.

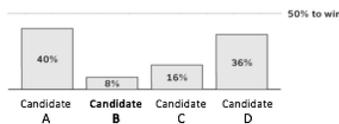
If a candidate gets 50% of the votes, they win.

If not, the counting goes to Round 2.

Your 1st choice for Candidate B is counted.

	1st	2nd	3rd
A			
B	●		
C			
D			●

When all the 1st choices are counted, Candidate A is leading, but there is no winner



Round 2

The candidate with the fewest votes is eliminated.

Ballots for that candidate are counted for their next choice (see illustration)

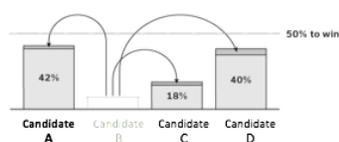
If your candidate has not been eliminated, your first choice still holds.

If a candidate gets 50% of the votes, they win. If not, the counting goes to Round 3.

Your next choice - for Candidate A - is counted.

	1st	2nd	3rd
A		●	
B	○		
C			
D			●

Candidate B is eliminated. Those ballots are counted for the next choice. Still no winner.



Round 3 (and beyond)

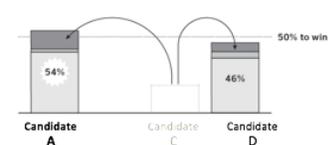
The counting continues until there is a winner.

In each round the last place candidate is eliminated and their ballots counted for the next choice candidates.

With Candidate A still in the race, your vote does not change

	1st	2nd	3rd
A		●	
B	○		
C			
D			●

Candidate C is eliminated. Those ballots are counted for the next choice. Candidate A wins.



Candidate sheet

Who's on your ballot?

Mayor

Frederick Sharp – Orange Party	Hears voices
Luis Garcia - Orange Party	Believes in justice for all
Charles Layne – Yellow Party	Drinks what he likes, which is cider
Andrew Kowalski – Yellow Party	Wants to tax wine
Alex Wallace – Purple Party	Wants to sweep out the current leadership
Eric Savoy - Purple Party	Believes in the Tooth Fairy
Barbara Williams - Tan Party	Builds good fences
Lillian Cohen - Lime Party	Has 5,000 friends on Facebook
Ann Windssock - Independent	Represents all people
Markos Miller – Silver Party	Thinks transit should run like clockwork

Interview materials

Questionnaire

Instructions	Answer all of these questions about the ballots you completed.	
Which ballot is easiest to use?		
<input type="checkbox"/> Purple	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow
Which ballot is most difficult to use?		
<input type="checkbox"/> Purple	<input type="checkbox"/> Green	<input type="checkbox"/> Yellow
How confident are you that you marked your preferred ballot correctly?		
<input type="checkbox"/> Very confident	<input type="checkbox"/> Somewhat confident	<input type="checkbox"/> Not confident
Ideally, how many candidates would you like to rank?		
<input type="checkbox"/> 1 - 3	<input type="checkbox"/> 1 - 6	<input type="checkbox"/> More than 6
Was the voter guide you received before the ballots helpful?		
<input type="checkbox"/> Not helpful	<input type="checkbox"/> Somewhat helpful	<input type="checkbox"/> Very helpful
After you're done, take this questionnaire to an interviewer.		