FairVote Ranked Choiced Voting Best Practiecs

2018 Maine primary grid-style ballot study report

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This report summarizes the findings our grid-style ballot usability study outside polling places during the Maine 2018 ranked choice primary.

Executive summary

The Center for Civic Design has partnered with the Ranked Choice Voting Resource Center and FairVote to research best practices for ranked choice ballot design, voter education, and results presentation.

Following our December 2017 study on ballot styles, we wanted to understand how different sizes of grids affect how voters feel about using them and how well they can accurately rank candidates on smaller and larger grids.

To do so, we intercepted 22 people leaving polling places during the June 12 primary election in Portland, ME. During intercepts, Republicans and Democrats tried grid-style ballots with real candidates from their party's primary. Each participant tried three versions of their party's ballot: One that allows them to rank three, five and all candidates in both races.

We found:

- People made few outright errors on any size of grid ballot.
- "Power rankers" were comfortable with grids of any size. "Novice rankers" prefer grids with five or fewer choices.
- Power rankers use mental strategies to overcome the challenges of larger grids.
- People can learn power ranker heuristics to make large grid ballots easier.

We recommend:

- RCV laws should permit ballots that allow ranking only five candidates (even if there are more than five candidates) to meet the needs of power and novice rankers.
- Enabling advocates to teach power ranker strategies to all voters.

Introduction

Background

The Center for Civic Design has partnered with the Ranked Choice Voting Resource Center and FairVote to research best practices for ranked choice ballot design, voter education, and results presentation.

In January, 2017, we conducted a large-scale usability test conducted comparing paper ballot designs, with the help of the Denver Elections Department and RCV for Colorado. In the test, participants marked three different ballots – a 3-column optical scan ballot with 3 ranks, a ballot where voters hand-wrote their rankings, and a grid-style ballot. The ballots were all designed using the best practice guidelines.

We then asked them about their experience. The good news is that almost all felt confident their vote would be counted accurately on their preferred ballot, suggesting best design practices and clear instructions worked well to support voters.

However, most participants said the grid-style ballot was the hardest to use. Grid-style ballots are common and easy to deploy. We now want to understand how different sizes of grids affect how voters feel about using them and how well they can accurately rank candidates on smaller and larger grids.

Research questions

We want to learn:

- Do different sizes of grids make a difference in how easily voters can rank candidates? Is there a “tipping point” between too many ranking opportunities and too few? Does the tipping point vary between single and multi-winner races?

- Does having a larger grid encourage voters to rank more candidates in single and/or multi-winner races?
- What strategies do voters use when they mark larger number of candidates? Or when they only mark a few? Do strategies change in multi-winner races?

Methodology

Methodological goals

We wanted to make sure:

- participants actually voted in elections
- participant answers and behaviors were realistic

To find voters, we recruited participants as they left polling places. To see realistic behaviors, our test ballots included a real race.

Participants and locations

We intercepted 22 people leaving polling places during the June 12 primary election in Portland, ME.

We recruited voters with varying:

- Familiarity with voting (both generally and RCV in particular)
- Attitudes towards RCV
- Ages
- Reading ability

We worked with RCV Maine and the Code for Maine UX team to find the best polling place for people who met these criteria: the Exposition Building at Hadlock Field, 239 Park Avenue.

Ballots to test

During intercepts, Republicans and Democrats tried grid-style ballots with real candidates from their party's June 12 primary, where possible. The ballots followed design practices from our previous research.

Republicans and Democrats each received ballots with real gubernatorial candidates and fake city council candidates. The number of fake city council candidates varied between Republicans and Democrats to ensure all test ballots are roughly the same length:

Democratic ballots included:

- 8 real candidates for governor + one write-in
- 9 fake city council candidates + two write-ins

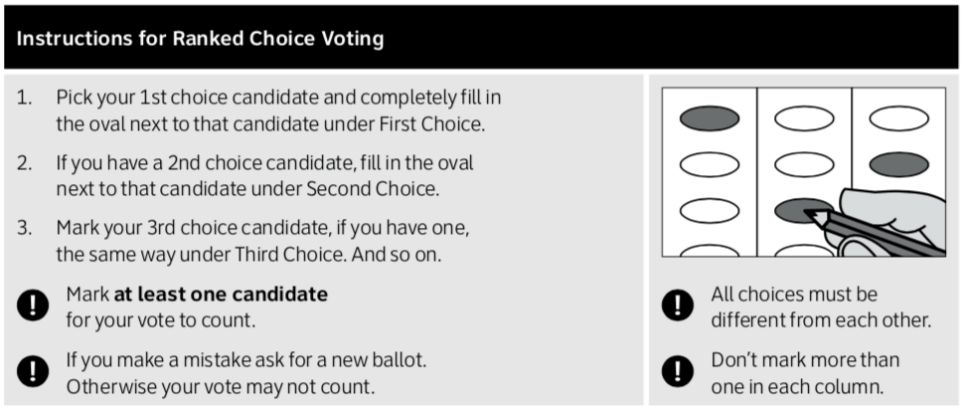
Republican ballots included:

- 5 real candidates for governor + one write-in
- 12 fake city council candidates + two write-ins

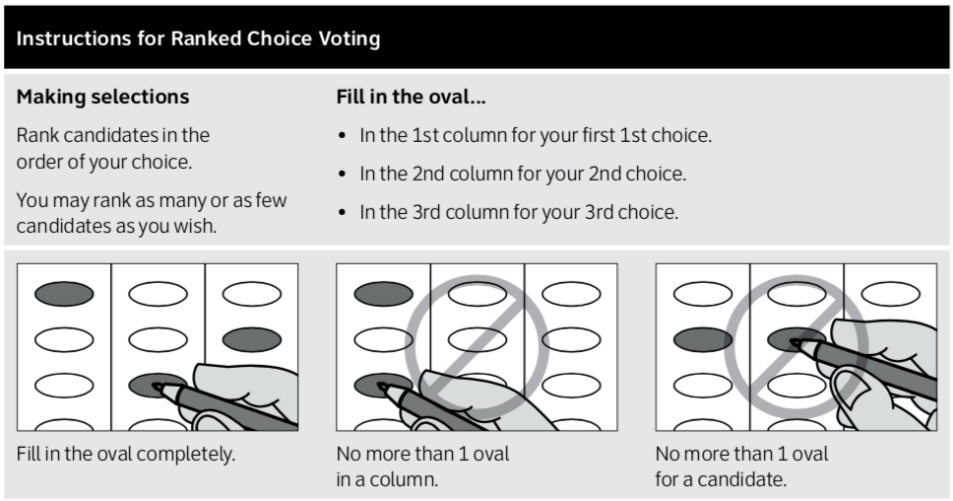
Each participant tried three versions of their party's ballot:

- One that allows them to rank three candidates in both races
- One that allows them to rank five candidates in both races
- One that allows them to rank all the candidates in both races

We also varied the style of instructions on the ballot:



Instruction style A



Instruction style B

Procedure

After we intercepted them, participants:

- Answered questions about their voting history and the experience they had just had with rank choice voting in the polling place. (See moderator guide for details.)_
- Completed the three ballots of various lengths for their party while we observed. (We randomized the order in which participants completed the different sizes.)
- Answered questions about:
  - Any problems or hesitations we noticed during the observation
  - Which contests were easy to mark (if any) and why
  - Which contests were hard to mark (if any) and why
  - How they decided how many candidates to rank

We offered participants a coffee and a donut after the completed the study.

Data collection

In addition to the answers to the questions above, we will record:

- The number of candidates people rank on ballots of each length
- Any errors on ballots of each length

Findings and recommendations

Exit intercepts captured realistic opinions about the election.

We succeeded in finding real voters who completed our ballots realistically. All participants were exiting a polling place and said they had voted. (They all had "I voted!" stickers, too.)

Participants said their answers mimicked what they did inside the polling place. Our discussions went back and forth between what they did inside and on our test ballots. The test ballots opened a discussion about work.

People made few outright errors on any size of grid ballot.

We examined ballots for errors of three types:

- Giving two or more candidates the same rank
- Giving one candidate more than one rank
- Skipping ranks (for example, ranking one candidate first and the next candidate third)

We found no errors on any ballots of any size or with any type of instructions. Like in our Denver study, well-designed ballots encourage accurate marking.

Both instructions styles supported accurate marking.

Recommendations

Continue to follow CCD RCV ballot design best practices. Leaving enough space between candidates is important. Centering marking ovals in their grid cell is also key.

“Power rankers” were comfortable with grids of any size.

Many participants were comfortable with grids of any size. They:

- Tended to rank all the candidates available
- Said things like "This is pretty easy. I'm not worried about the size."
- Had experience in previous ranked choice elections (like the Portland mayoral election)
- Noted using various mental strategies and heuristics. They used these strategies to remember their choices and check their ballot for errors.

“Novice rankers” prefer grids with five or fewer choices.

Some participants were not comfortable with larger grid ballots. They said ballots with more than five choices were "overwhelming" or "too much." They worried they would make errors on these grids and felt less confident.

Novice rankers:

- Tended to rank only 3-5 candidates, even on larger ballots
- Said things like "I'm new to this so I want to keep it simple."
- Had no previous experience in ranked choice elections.
- Noted using few of the mental strategies expert rankers did.

Recommendations

- Jurisdictions introducing RCV may want to consider offering fewer ranks at first. A grid ballot with fewer columns may welcome more novice rankers to RCV.
- RCV laws should permit ballots that allow ranking only five candidates (even if there are more than five candidates). Laws should be flexible enough to hit the "sweet spot" for novice and power rankers. 15 ranks for 15 candidates overwhelms novice ranks. Offering only fewer than five choices discourages power rankers.

Power rankers use mental strategies to overcome the challenges of larger grids.

Novice and power rankers have different experiences because of their different mental strategies. Power rankers used heuristics to overcome the cognitive challenges of large grids: remembering choices, marking the ballot and checking for errors.

Remembering choices

Where there are more than five candidates, it's hard to remember what rank you want to assign each of them. Human working memory can only hold about five items. To stretch their memories, power rankers:

- Mentally placed candidates into "top," "middle" or "bottom" categories. By chunking their ranks into these bigger categories, it's easier to remember how to rank them.
- Imagined candidate faces or symbols in order. Some participants felt it was easier to remember the order of images than names. (Although they then had to translate their mental images to names when it came to marking their ballot.) Their experience matches psychology research on remembering ordered names. Many memory experts use the same strategy.
- Repeated and rehearsed candidate orders. We noticed several participants muttering candidate names in order as they entered the polling place. They said they memorized their preferred order by repeating it in their heads. To be effective, they repeated names in the hours before voting.
- Used crib sheets. Several participants brought little pieces of paper covered in candidate initials. Some repeated the initials to themselves before voting. Some said they referenced the list in the voting booth.

Marking the ballot

When completing a large grid ballot, it's hard to keep track of which row/column you are working on. Our "perceptual field" for reading only holds about six inches at once. When grids become wider, power rankers:

- Placed their finger on the column (rank) they were considering at the moment. When they marked a column, they moved their finger to the next column.

- Used extra paper or crib sheets to remember their place. Some people used paper the same way others used their finger. They covered previous columns to remember their current location.
- Checked each column after making each rank. After marking their second choice, they double checked their first choice. After the third, they checked the first and second. By counting up after they marked each rank, they didn't have to remember their current place.

Checking for errors

A cursory glance at a ranked choice ballot doesn't always reveal errors. As a result, power rankers:

- Checked each row for completeness. They made sure they have selected a rank for each candidate.
- Checked each column for completeness. They made sure they have selected a candidate for each rank, minus unused write-ins. (Write-ins also confused novice rankers.)
- Looked for "holistic" completeness. They stepped back, look at the ballot and see whether it "feels like" it’s complete. This strategy is only effective in combination with checking rows or columns.
- Spot check their choices. They'll pick a candidate and check whether it has the choice they remember. If it doesn't, they'll use one of these more time-consuming strategies (like row or column checking).

People can learn power ranker heuristics to make large grid ballots easier.

Many power rankers learned their heuristics in previous RCV elections. By past trial and error, they found ways to manage large grids.

But several power rankers had no RCV experience. They had learned power ranker heuristics from RCV advocates. According to participants, some "Maine Uses RCV" organizers taught them tricks like:

- Organizing candidates into top, middle and bottoms categories
- Placing a finger on the ballot to keep track of location
- Checking each row for completeness.

Participants said these tips made them more confident with larger grid ballots.

Recommendations

Enable advocates to teach voters strategies for dealing with large ballots. Introducing RCV and these strategies simultaneously will turn out confident voters.