

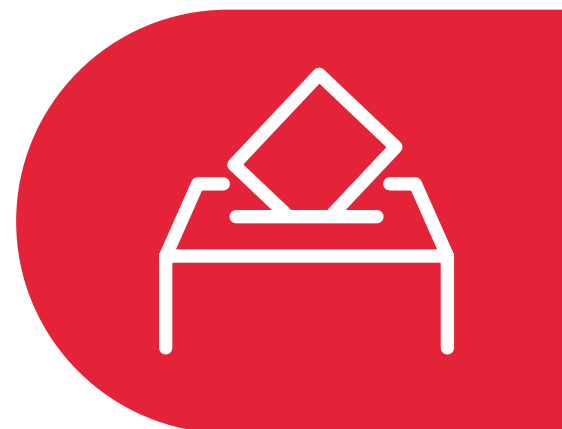
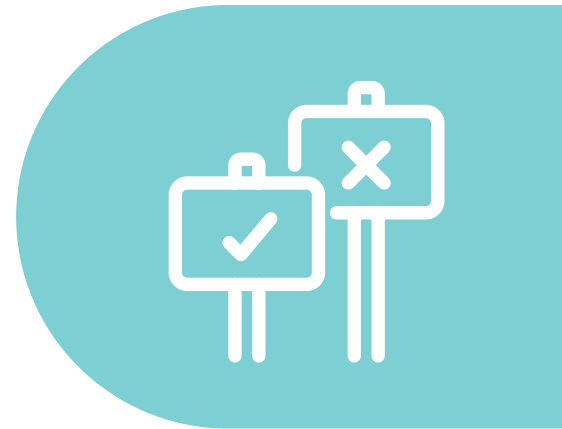
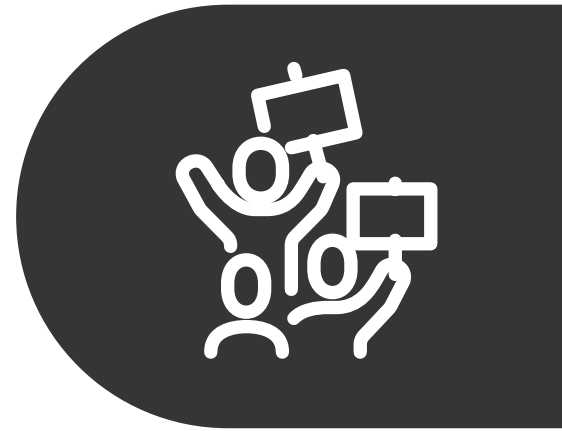


# IOWA

Ranked Choice Voting  
State Readiness Assessment  
**2023 Edition**

# Table of Contents

1. Introduction	3
2. Election Administration	4
3. Voter Education	5
4. Ballot Design	7
Ballot Design Resources	8
5. Ballot Counting and Centralization	9
Results Reporting in All Elections	10
Changes Required to Produce RCV Results	10
Types of RCV Results	11
Centralization Options for RCV	12
Producing RCV Results	15
When to Produce RCV Results	15
Displaying RCV Results	16
6. RCV Audits	17
7. RCV Recounts	17
8. Voting Systems in Iowa	18
Counties with RCV-capable voting systems	19
Counties with Not-RCV-capable voting systems	20
9. Conclusion	20
10. Appendix	21
Counties with RCV-capable voting systems	22
Counties with Not-RCV-capable voting systems	28
Grid Ballots	29
Column Ballots	36
Touchscreen/Accessible Ballots	39
Best Practices Ballot Instructions	45



# RANKED CHOICE VOTING AND ELECTION ADMINISTRATION IN THE STATE OF IOWA

## 1 Introduction

Election administration is the day-to-day work required to run elections in the United States. This assessment provides a high-level introduction to ranked choice voting (RCV) election administration and analyzes the RCV capability of voting systems used throughout Iowa. Advocates, administrators, and policymakers can use this document to understand the outlines of the primary administrative changes required to run an RCV election and to determine what updates, if any, are required to become RCV Ready.

Detailed analysis of election law and administrative practices is an important part of designing effective RCV legislation. That level of detail is beyond the scope of this assessment. Readers wishing to learn more about the details of RCV administration should review the Technical Implementation section of RCVRC, RepresentUs, and Democracy Rising's *Protect the Win* report and associated resources to go beyond the high-level introduction offered in this document.<sup>1</sup> Those looking to learn more about RCV under the election laws in their state should contact a member of the RCV legal roundtable, which has representatives from Campaign Legal Center, FairVote, Protect Democracy, Ranked Choice Voting Resource Center, RepresentUs, and Unite America (as of April 2023). If you are interested in a more detailed assessment of your state, please reach out to the Ranked Choice Voting Resource Center ([info@rcvresources.org](mailto:info@rcvresources.org) or 1-833-VOTE-RCV (868-3728)), and we can work with you on producing the additional information.

These assessments provide scores grading the readiness of each state to run RCV elections statewide. Scores are based on what voting systems each state uses, and states are labeled as **RCV Ready**, **RCV Capable**, **Prepping for RCV**, or **Updates Needed for RCV**.<sup>2</sup> This score, however, is just an indication of the amount of work necessary to implement RCV in that state. We know from experience that election administrators are adept at implementing change when it is necessary to do so. RCV Maps is not intended to suggest or prove that any state or local jurisdiction is incapable of implementing RCV. While some states may have more work to do when implementing RCV than others, no state is fundamentally incapable of implementing RCV due to its current election administration infrastructure.

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<sup>1</sup> Grace Ramsey, Chris Hughes, Kelly Sechrist, Ryan Kirby, David O'Brien, and Anh-Linh Kearney, *Protect The Win: An Advocate's Guide To Implementing Ranked Choice Voting*, Democracy Rising, Ranked Choice Voting Resource Center, and RepresentUs (Mar. 2023), <https://www.rcvresources.org/the-implementation-project>.

<sup>2</sup> For more information on how states are categorized and scored, check out the Ranked Choice Voting Resource Center, *How We Score States Guide v.2.0*, (Mar. 2023), [https://drive.google.com/file/d/1oFHcilTkw67xcZV6UzFNO881\\_eb1H97i/view](https://drive.google.com/file/d/1oFHcilTkw67xcZV6UzFNO881_eb1H97i/view).



## 2 Election Administration

The people tasked with running elections are known as election administrators. In most states, the state-level election administrator is the Secretary of State. City/County Clerks or City/County Boards of Elections administer elections at the local level. In each state, election administration is a home-grown process. Depending on the state, administering elections can be highly decentralized, with City or County Clerks acting mostly independently of the state and of one another (as in Wisconsin).<sup>3</sup> Alternatively, it can be highly centralized, with City and County Clerks working in close coordination with or at the direction of the state (as in Maryland).<sup>4</sup> Some states have specific functions that are highly centralized at the state level (like ballot design) while leaving other functions entirely up to the locality (like certifying candidates for election).

Election administration tasks include:

- » Registering voters
- » Certifying candidates and issues for the ballot
- » Designing ballots
- » Certifying voting systems for use in elections
- » Programming voting systems for upcoming elections
- » Administering campaign finance reporting systems
- » Sending out absentee ballots
- » Testing voting systems before elections (known as Logic & Accuracy testing)
- » Training poll workers
- » Finding polling places
- » Processing and counting ballots
- » Canvassing and certifying election results
- » Conducting post-election audits
- » Conducting recounts
- » And more!

Depending on the state, election administrators may wear other hats as well. In addition to running elections, many also register deeds, issue marriage certificates, collect documents, and coordinate City or County Council meetings, among other tasks.<sup>5</sup>

The federal government is minimally involved in election administration. The Election Assistance Commission (EAC) is the federal agency tasked with overseeing election administration in the United States.<sup>6</sup> The EAC is a supportive agency purposefully designed to have little power over the work of state and local administrators.<sup>7</sup> At this point, the EAC's primary role is to distribute federal election administration funding to states. In addition, they serve as a clearinghouse for election administration documents and best practices from the states, and they set voluntary voting systems standards known as the Voluntary Voting System Guidelines (VVSG).<sup>8</sup> Some states require voting systems to meet EAC certification standards, but most do not.<sup>9</sup>

<sup>3</sup> Wisconsin Elections Commission, *Wisconsin Elections*, <https://elections.wi.gov/elections> (last visited Mar. 7, 2023).

<sup>4</sup> See Maryland State Board of Elections, *About SBE*, <https://www.elections.maryland.gov/about/index.html> (last visited Mar. 10, 2023).

<sup>5</sup> For an illustrative list of county clerk tasks, see Jacqueline J. Byers, *Role of the County Clerk*, National Association of Counties (Nov. 2008), [https://drive.google.com/file/d/1jbjkV\\_8dcidzDXfVn3EEcnCTYLUR3SGZ/view](https://drive.google.com/file/d/1jbjkV_8dcidzDXfVn3EEcnCTYLUR3SGZ/view).

<sup>6</sup> U.S. Election Assistance Commission, *About the U.S. EAC*, <https://www.eac.gov/about-the-useac> (last visited Mar. 3, 2023).

<sup>7</sup> See Congressional Research Service, *The U.S. Election Assistance Commission (EAC): Overview and Selected Issues for Congress 3* (Feb. 23, 2023), <https://crsreports.congress.gov/product/pdf/R/R45770>.

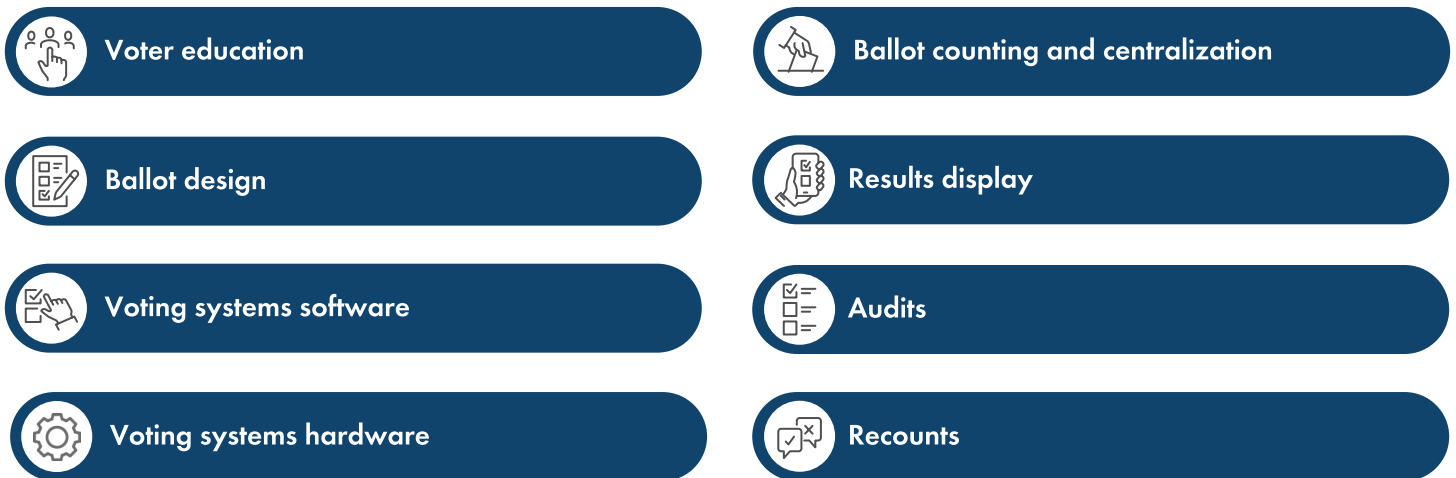
<sup>8</sup> U.S. Election Assistance Commission, *Voluntary Voting System Guidelines*, <https://www.eac.gov/voting-equipment/voluntary-voting-system-guidelines> (last visited Mar. 3, 2023).

<sup>9</sup> U.S. Election Assistance Commission, *State Requirements and the U.S. Election Assistance Commission Voting System Testing and Certification Program* (Sept. 4, 2020), [https://www.eac.gov/sites/default/files/TestingCertification/State\\_Requirements\\_for\\_Certification09042020.pdf](https://www.eac.gov/sites/default/files/TestingCertification/State_Requirements_for_Certification09042020.pdf).



In Iowa, election administration responsibilities are divided between the Secretary of State, who supervises elections and issues rules and regulations for the conduct of elections, and County Auditors, who supervise voter registration and serve as chief election officials in their county.<sup>10</sup> Contact information for County Auditors can be found on the Secretary of State’s website.<sup>11</sup>

While election administration practices vary across the country, election administration domains impacted by ranked choice voting (RCV) fall into a few standard categories:



This assessment begins with a high-level discussion of voter education, ballot design, ballot counting and centralization, audits, and recounts in RCV elections. Those sections of the assessment are designed to introduce readers to each topic and give them a roadmap for how RCV elections work in general. The assessment then provides a detailed analysis of the voting systems used in Iowa to help advocates and administrators understand the major technological barriers, if any, to RCV implementation in their state.

### 3 Voter Education

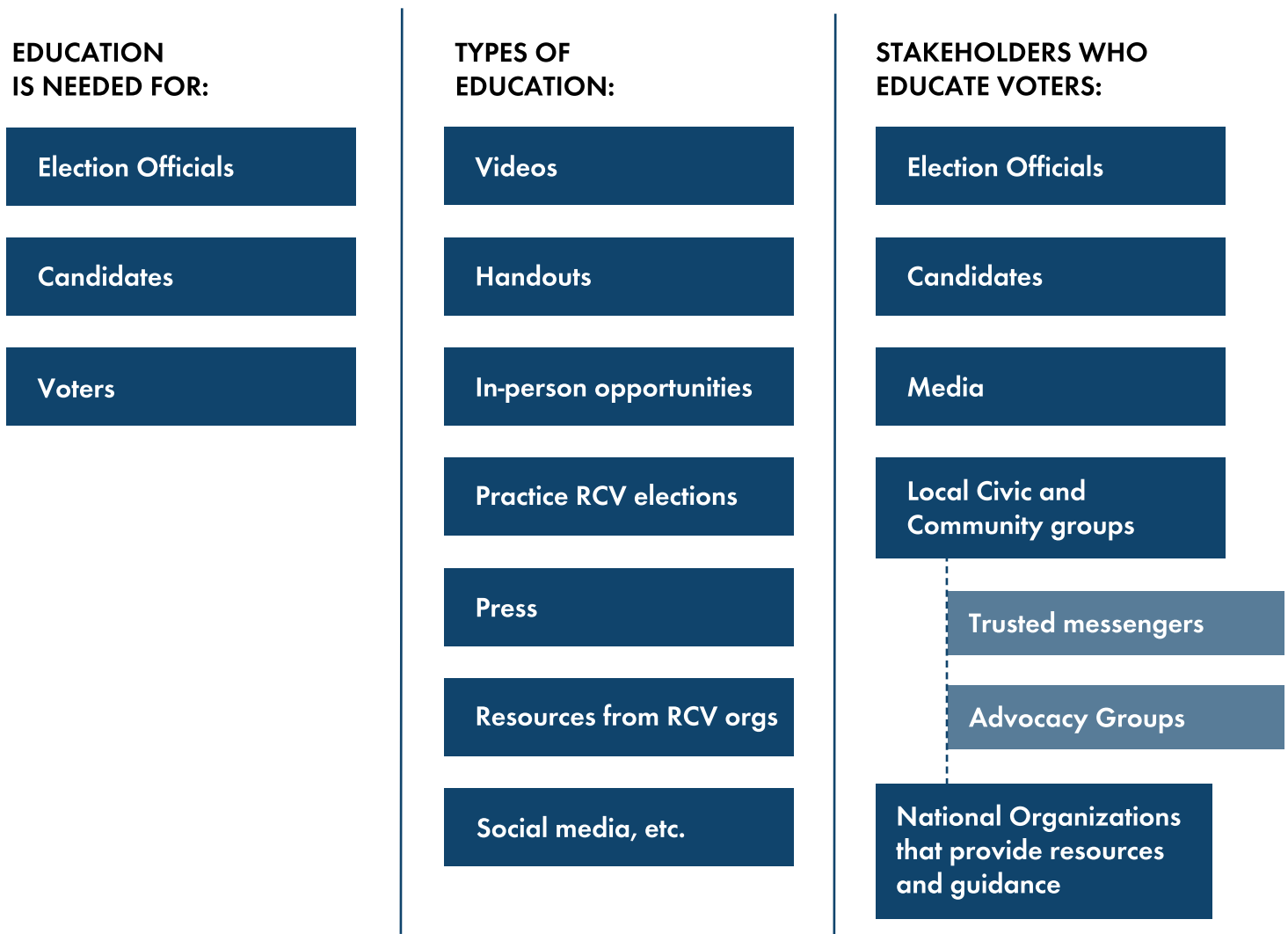
Educating the public about ranked choice voting (RCV) is a necessary part of administering a successful RCV election. Voters need to be taught two things: how to mark the ballot and how votes are counted. Up to and on Election Day, voters are most interested in learning how to mark their ballot. Voter education should focus on this aspect during that time frame by showing voters what the ballot will look like and giving them as many opportunities as practicable to practice marking the ballot. Some voters will be interested in understanding the vote tabulation process, but most will not focus on that until closer to and after Election Day. Materials such as videos and handouts describing how votes are tabulated should be made available before Election Day for interested members of the public but will be most valuable after polling places close.

<sup>10</sup> Iowa Code § 50.29; Bolts Magazine, *Who Runs Our Elections?*, <https://boltsmag.org/whats-on-the-ballot/local-election-administration/> (last visited Aug. 1, 2023).

<sup>11</sup> Iowa Secretary of State, *Find Your County Auditor/Commissioner of Elections*, <https://sos.iowa.gov/elections/auditors/auditorslist.html> (last visited Aug. 1, 2023).

While it is simple to describe the goals of an RCV education campaign, successful voter education requires a substantial effort by election administrators and local stakeholders. RCV education and outreach should complement pre-existing education efforts for voters, candidates, and election officials. Such efforts also benefit from coordination with community and civic organizations throughout a city, county, or state.

The Ranked Choice Voting Resource Center website provides links to a variety of education and outreach methods that jurisdictions have used.<sup>12</sup> The Center for Civic Design provides best practices and implementation support for RCV voter education campaigns.<sup>13</sup> Democracy Rising provides voter education and candidate training support for RCV campaigns and jurisdictions.<sup>14</sup> The Voter & Candidate education section of the *Protect the Win* RCV implementation report also provides best practices and resources for conducting RCV voter education.<sup>15</sup> Effective use of these resources will ensure that any RCV education campaign follows best practices and will reach the most voters possible.



<sup>12</sup> Ranked Choice Voting Resource Center, *Voter Education and Outreach*, <https://www.rcvresources.org/pre-election> (last visited Mar. 7, 2023).

<sup>13</sup> Center for Civic Design, *Design Principles for Ranked Choice Voting*, <https://civicdesign.org/topics/rcv/> (last visited Mar. 7, 2023).

<sup>14</sup> Democracy Rising, <https://www.wearedemocracyrising.org/>.

<sup>15</sup> Ramsey et al., *supra* note 1.



## 4 Ballot Design

Designing ballots is a crucial yet challenging part of running a successful election. Ballot design must incorporate the voting method required for each contest, the total number of contests, and the number of candidates in each contest while simultaneously providing voters with clear and concise instructions in any given election and complying with relevant laws regulating ballot design.

Successful ballot design takes time. Several months before any election, election administrators at all levels determine the contests that should appear on the ballot and prepare for the candidate filing or nomination period.<sup>16</sup> After the candidate filing or nomination period closes, election administrators collect lists of all the contests required and candidates qualified to appear on a ballot. Administrators then create a ballot using either ballot design software from their voting system vendors or software developed in-house.<sup>17</sup> After creating these draft ballots, officials proof ballots for accuracy and adherence to state or local design requirements.<sup>18</sup> Once the review process is complete, election administrators submit ballot designs to printing companies, who then provide election offices with printed ballots for their elections.<sup>19</sup>

The contests appearing on the ballot vary within states, counties, and cities, depending on the offices up for election in a given voter's assigned precinct. Due to this variation, election administrators design many different ballots for any given election. To track and manage these different ballot designs, election administrators assign each unique ballot design a style label.<sup>20</sup> This label may be a simple letter or number designation. For larger, more complex elections, ballot-style labels can require a more intricate naming process.

Ranked choice voting (RCV) needs additional consideration in the ballot design process. RCV contests require more space on a ballot than non-RCV contests and require relevant instructions for voters to read. In addition, states may have particular ballot design requirements that election administrators need to conform RCV to when designing their ballots. Voting systems also vary in the types of RCV ballots they can design. These considerations are unwieldy to resolve in the abstract. This section instead describes the ballot design process and points readers towards resources that will help them design ballots if and when RCV is adopted. If interested in deeper legal analyses, contact a member of the RCV legal roundtable, which has representatives from Campaign Legal Center, FairVote, Protect Democracy, Ranked Choice Voting Resource Center, RepresentUs, and Unite America (as of May 2023). More detailed administrative analyses are also available upon request.

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<sup>16</sup> U.S. Election Assistance Commission, *Chapter 5: Ballot Building*, in *Election Management Guidelines* 41, 41 (2010), [https://www.eac.gov/sites/default/files/eac\\_assets/1/6/Chapter\\_5\\_Ballot\\_Building.pdf](https://www.eac.gov/sites/default/files/eac_assets/1/6/Chapter_5_Ballot_Building.pdf)

<sup>17</sup> *Id.* at 42.

<sup>18</sup> *Id.* at 44.

<sup>19</sup> Ballot design concludes well in advance of Election Day in order to provide time for printing out large orders of ballots, sending ballots to voters who are in the military or living overseas, sending ballots to voters who request them by mail, and getting ballots back in time for Logic and Accuracy testing of voting systems (when programmed election equipment is tested to confirm that it will behave as it is programmed to on Election Day).

<sup>20</sup> See The Elections Group, *Ballot Proofing* (June 2022), <https://www.electionsgroup.com/ballot-proofing>.



# BALLOT TIMELINE

STEP 1: Determine contests on ballot	STEP 2: Prepare for filing/nomination period	STEP 3: Create ballot	STEP 4: Proof ballots for accuracy/compliance	STEP 5: Submit ballot designs to printing company
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## BALLOT DESIGN RESOURCES

The Center for Civic Design (CCD), FairVote, and the Ranked Choice Voting Resource Center (RCVRC) have published a number of reports on designing RCV ballots. When designing an RCV ballot, administrators should follow the EAC’s best practices for designing any ballot.<sup>21</sup> In addition, CCD highlights the following major questions for election administrators to answer when designing RCV ballots:

- » Is ranking new for your voters?
- » How many contests will include rankings? Where are those contests in the overall ballot order?
- » What are your legal requirements for ballot design, especially requirements for the number of choices available for ranking?
- » Does your voting system support RCV ballot layout?<sup>22</sup>

CCD also provides best practices for designing RCV ballots.<sup>23</sup> FairVote and RCVRC published a report analyzing RCV election data from across the country to better understand how voters use RCV ballots and identify best practices for RCV ballots that complement those from CCD.<sup>24</sup>

Election administrators often wonder whether it is possible to include RCV and non-RCV contests on the same ballot, as well as how to include write-in lines in RCV contests. Both are possible. Real-world examples of each are included in the [appendix](#) and in CCD best practices.<sup>25</sup>

Administrators and advocates should also understand what sorts of RCV ballots the voting systems used in a jurisdiction can design. The two primary forms of ranked choice ballots in use in the United States are column-style and grid-style ballots. Examples of those ballots are included in the [appendix](#). Voting systems in 98 counties currently used in Iowa can handle either or both of these forms of RCV ballot. Voting systems in one county cannot, at present, produce either form of RCV ballot. The [Voting Systems](#) section of this assessment briefly discusses the forms of RCV ballots available via the voting systems used in Iowa. Samples of vendor RCV ballots, where available, are also provided in the [appendix](#).

<sup>21</sup> U.S. Election Assistance Commission, *Designing Polling Place Materials*, <https://www.eac.gov/election-officials/designing-polling-place-materials> (last visited Mar. 3, 2023).

<sup>22</sup> Center for Civic Design, *Best Practices: Designing Ranked Choice Voting Ballots 4* (July 2022), <https://civicdesign.org/wp-content/uploads/2022/10/CCD-RCV-Best-Practices-Ballot-Design-2022-1.pdf>.

<sup>23</sup> *Id.*

<sup>24</sup> FairVote & Ranked Choice Voting Resource Center, *Ranked Choice Voting Ballot Usage Analysis and Design Recommendations* (Sept. 19, 2022), <https://www.rcvresources.org/blog-post/ranked-choice-voting-ballot-usage-analysis-and-design-recommendations>.

<sup>25</sup> Center for Civic Design, *supra* note 22, at 15.



## 5 Ballot Counting and Centralization

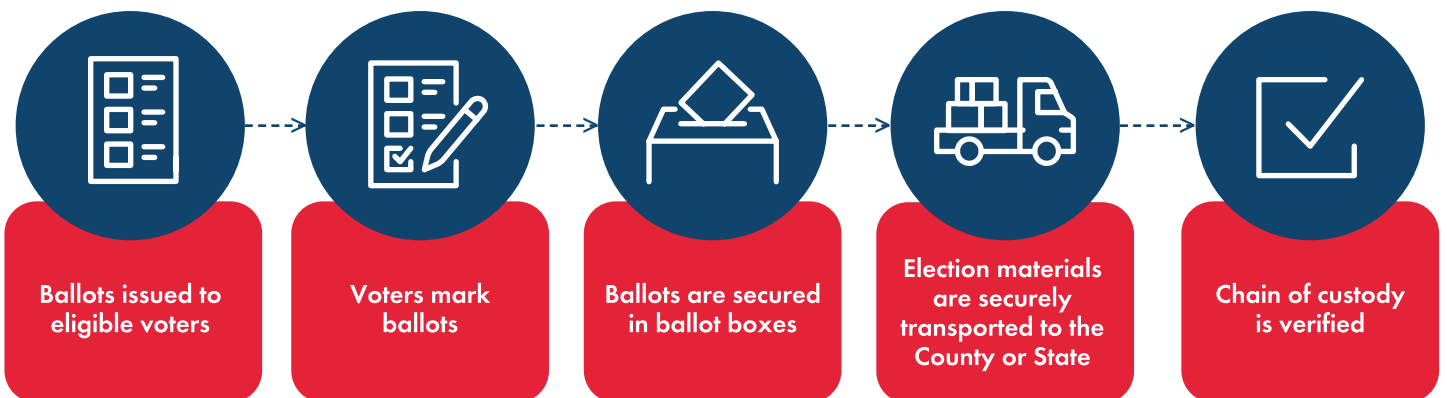
Producing election results is a high-pressure part of the election process. Voters, candidates, and the press all clamor for results to come out quickly on election night, but those election night results are increasingly preliminary.<sup>26</sup> While results have never actually been final on election night – election administrators certify final, official election results anywhere from a few days to a month after Election Day – the parallel rise of vote-by-mail processes and politically motivated attacks on the election process has brought into sharp relief the difference between election night results and final, certified results. Ranked choice voting (RCV) also tends to put a spotlight on this difference.

Two aspects of RCV contribute to this:

- » A new election results process; and
- » The requirement to centralize RCV data from across the election jurisdiction (whether at the city, county, or state level).

These factors mean the public will be more sensitive to the pre-existing complexities of the results counting process that RCV can highlight. These pressures make it important to provide RCV results in a transparent, understandable way. To help administrators and advocates determine the most effective way to produce RCV results in Iowa, this section briefly describes the major administrative changes necessary to produce RCV results at the state level.<sup>27</sup> It starts by describing the results production process in general (for any election, RCV or not), then discusses the types of results produced in RCV elections now, processes for centralizing the data necessary to produce RCV results, processes for producing RCV results themselves, and best practices for displaying RCV results.

A more detailed memo digging into the details of centralization, results timing, and results display is also available for those interested in learning more. Note that this section does not cover specific legal, policy, and administrative changes necessary to implement RCV in Iowa. If interested in a more detailed analysis, contact the Ranked Choice Voting Resource Center (RCVRC) and/or Legal Roundtable to discuss producing a memo covering this topic area in Iowa.



<sup>26</sup> John Curiel, Charles Stewart III, and Jack Williams, *The Blue Shift in the 2020 Election*, MIT Election Data + Science Lab (Apr. 27, 2021), <https://electionlab.mit.edu/sites/default/files/2021-04/Blue-Shift-in-2020-Election.pdf>.

<sup>27</sup> Producing RCV results at the city or county level also requires updates to processes. Every aspect of the results production process described in this section applies to city or county-level results too. Many cities or counties already centralize election materials (results, ballots, scanners, and other materials) back to the local elections office post-Election Day. Because of this, centralizing RCV results should require fewer process updates for city and county-level elections than for state-level elections.

# RESULTS REPORTING IN ALL ELECTIONS

There are two major stages to the results reporting process in any election:

- » **Unofficial results** are incomplete results, a category that includes election night reporting.
- » **Official results** are the final results of an election.

Starting on election night, election officials post unofficial results at precincts, election offices, and/or on unofficial results reporting websites.<sup>28</sup> This period of unofficial results reporting is also known as election night reporting.<sup>29</sup> Election night results may or may not include absentee or early voting ballots and will not include provisional ballots or ballots that cannot be read by a voting machine in the polling place.<sup>30</sup> After Election Day, jurisdictions continue counting ballots; as more ballots are counted, jurisdictions update unofficial results.

Official results are the final, certified results of an election. These results include votes from all ballots cast in an election, provide the official record of total votes for each candidate in each contest, and are used as the record to certify the official winner(s) in every contest.<sup>31</sup> The body responsible for certifying state election results varies depending on the state and the level of government being elected. Cities tend to certify results for municipal elections, counties tend to certify results for county elections, and states tend to certify results for state and federal elections.

Processes for centralizing election results vary across states. On election night, poll workers typically print out or copy down results totals for each contest from voting systems in polling places.<sup>32</sup> Poll workers then call in, hand-deliver, or enter those numbers on secure web portals to report totals to city or county election administrators.<sup>33</sup> For state and federal elections, those city or county administrators then report election night results up to the state level, using that same possible variety of reporting procedures. These cycles of counting ballots and reporting results continue until all ballots are counted. Official results are those results produced once every single eligible ballot is counted.

## CHANGES REQUIRED TO PRODUCE RCV RESULTS

RCV results can be produced following many of the pre-existing practices and procedures used in a jurisdiction to produce results in other types of elections. There are some changes necessary to adapt to RCV, however. The major changes are that:

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<sup>28</sup> Election Assistance Commission, *Election Results, Canvass, And Certification*, <https://www.eac.gov/election-officials/election-results-canvass-and-certification> (last visited Mar. 7, 2023).

<sup>29</sup> *Id.*

<sup>30</sup> Like all elections processes, this varies across and within states. Some states begin scanning absentee ballots on Election Day after polls open, while other states wait until polls close to begin scanning ballots. Some states are permitted to begin processing absentee ballots (steps such as checking signatures and other verification measures on absentee envelopes) before Election Day but may not scan those ballots until Election Day, while other states must wait until Election Day (or after) to begin all processing of absentee ballots.

<sup>31</sup> Election Assistance Commission, *supra* note 28.

<sup>32</sup> Victoria Hammitt, *What Happens To My Ballot After I Vote?*, Campaign Legal Center (Dec. 13, 2021), <https://campaignlegal.org/update/what-happens-my-ballot-after-i-vote>.

<sup>33</sup> *Id.*



- » Election administrators need to centralize data known as the cast vote record (CVR) to produce round-by-round results, if required;
- » Administrators may need to conduct multiple rounds of counting to determine winners in RCV elections;
  - To efficiently run rounds of counting, administrators need access to software that can run the RCV round-by-round count (discussed in detail in section [8. Voting Systems](#) below);
- » RCV results need to be displayed clearly to explain to voters who won.

Election administrators will also need to determine how and when they will produce round-by-round RCV results. Best practice is to produce round-by-round RCV results as ballots come in, with updates provided as frequently as possible within established election policies. This parallels pre-existing results reporting processes in non-RCV elections. Any results timeline should be clearly communicated well in advance of Election Day to set expectations. This is discussed in greater detail in the Ranked Choice Voting Resource Center’s (RCVRC) and FairVote’s Results Reporting Best Practices document, as well as RCVRC’s *How to Produce RCV Results* policy brief.<sup>34</sup>

## TYPES OF RCV RESULTS

In the United States, RCV jurisdictions produce two forms of results: first-choice results and round-by-round results.<sup>35</sup> First-choice results report the number of first-choice rankings that each candidate received. Many RCV elections are determined on the basis of first-choice results alone because one candidate receives a majority of votes in the first round.<sup>36</sup>

### Election results

Jumaane D. Williams won the DEM Public Advocate Citywide Primary with 572,762 of the votes in the first round. Jumaane D. Williams received over 70.0% of the vote in round 1.

How the votes were counted - round by round		
	Round 1	
Eliminated in this round		
Elected	Jumaane D. Williams*	
Votes in this round	# votes	% of vote
Jumaane D. Williams	572,762	70.0%
Anthony L. Herbert	173,858	21.2%
Theo Bruce Chino Tavarez	64,053	7.8%
Write-ins	8,049	1.0%
Inactive ballots		

Results from the New York City 2021 Citywide Democratic Primary for Public Advocate.<sup>37</sup>

\*The winning candidate is the candidate who has over 50% of the vote in round 1.

<sup>34</sup> FairVote & Ranked Choice Voting Resource Center, *Best Practices for Releasing RCV Election Results* (Dec. 2022), <https://www.rcvresources.org/blog-post/best-practices-for-releasing-rcv-election-results>; Ranked Choice Voting Resource Center, *How to Produce RCV Results* (Aug. 2023), <https://drive.google.com/file/d/1vy5jlmSzf6YHl9JRe6wS8B87AvbDR97m/view>.

<sup>35</sup> Equal Democracy Project & Ranked Choice Voting Resource Center, *Reporting the Results of Ranked-Choice Voting Elections: Successes and Pitfalls Across Forty-Four RCV Jurisdictions* (Aug. 2022), <https://www.rcvresources.org/blog-post/reporting-the-results-of-ranked-choice-voting-elections>.

<sup>36</sup> FairVote, *Research and Data on RCV in Practice*, <https://fairvote.org/resources/data-on-rcv/#majority-winners-in-rcv-elections> (last visited Mar. 8, 2023).

<sup>37</sup> Board of Elections in the City of New York, *2021 Primary Official Ranked Choice Rounds - DEM Public Advocate Citywide* (July 20, 2021), [https://www.vote.nyc/sites/default/files/pdf/election\\_results/2021/20210622Primary%20Election/rcv/DEM%20Public%20Advocate%20Citywide.pdf](https://www.vote.nyc/sites/default/files/pdf/election_results/2021/20210622Primary%20Election/rcv/DEM%20Public%20Advocate%20Citywide.pdf).



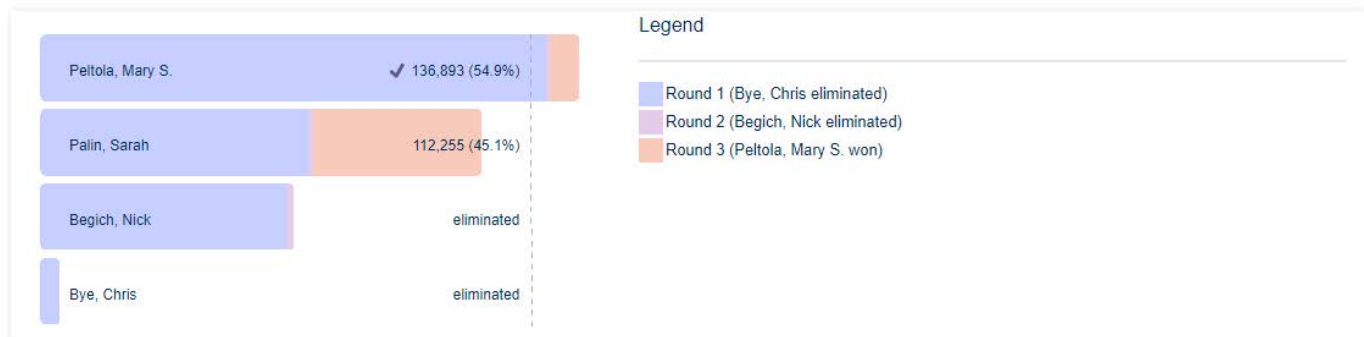
If all RCV contests in a given election are decided in the first round, administrators may not need to run rounds of counting and, therefore, may not need to centralize CVR data.

Round-by-round results are required to determine the winners in contests where no winner emerges based on first choices. Even though many RCV elections are decided in the first round, any RCV election could go to rounds of counting, so election administrators must be prepared, before Election Day, to produce round-by-round results in order to run any RCV election. The following discussion is focused on procedures necessary to produce round-by-round results but will also discuss first-choice results when relevant.

## U.S. Representative

Tuesday, November 8, 2022

The results of a ranked-choice voting election. | [Download Raw Summary Data](#) | [Source](#)



Sample image from RCVis.com showing the November 2022 election results for the Alaska House of Representatives.<sup>38</sup>

## CENTRALIZATION OPTIONS FOR RCV

Determining the results of an RCV contest requires the centralization of digital election results from the entire contest, whether in a district in a city election or from all counties in a statewide election. After all digital results are centralized and uploaded to the jurisdiction's election management software, that software can be used to produce round-by-round results based on the CVR. CVRs are digital records of all rankings on each ballot cast on a voting machine.<sup>39</sup>

<sup>38</sup> RCVis.com, *U.S. Representative*, <https://rcvis.com/v/us-representative-2> (last visited Mar. 10, 2023).

<sup>39</sup> Administrators may also need to turn paper ballots that have not yet been scanned by voting systems into CVR data. This depends on local practice, such as whether any cities or counties hand count their elections. Jurisdictions may choose to create CVRs locally – at city or county offices – or may centralize paper ballots to the state, which can scan in ballots.

The CVR files from the ES&S EVS export system are in a Microsoft Excel Worksheet format. The sample below displays the following records:

- » First Vote Column Index – the first vote appears in column D under “Cand Choice 1”
- » First Vote Row Index – the first cast vote record is in Row 2 in this example
- » ID Column Index – in this sample, Column A contains all Cast Vote Record IDs, making it the ID Column
- » Precinct Column Index – displayed in Column B as the precinct Name/#
- » Ballot Style – Column C is the Name/# of the ballot style
- » Cand Choice – Columns D through H are the candidate choices selected by the voter

	A	B	C	D	E	F
1	Cast Vote Record	Precinct	Ballot Style	Rep. to Congress 1st Choice District	Rep. to Congress 2nd Choice District	Rep. to Congress 3rd Choice District
2	1	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	REP Poliquin, Bruce	REP Poliquin, Bruce
3	2	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	undervote	undervote
4	3	Fayette	CAN Ballot Style 130	DEM Golden, Jared F.	Bond, Tiffany L.	undervote
5	4	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	DEM Golden, Jared F.	Bond, Tiffany L.
6	6	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	undervote	undervote
7	8	Fayette	CAN Ballot Style 130	Hoar, William R.S.	REP Poliquin, Bruce	Bond, Tiffany L.
8	10	Fayette	CAN Ballot Style 130	undervote	undervote	undervote
9	15	Fayette	CAN Ballot Style 130	DEM Golden, Jared F.	Bond, Tiffany L.	Hoar, William R.S.
10	17	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	undervote	undervote
11	19	Fayette	CAN Ballot Style 130	REP Poliquin, Bruce	Hoar, William R.S.	Bond, Tiffany L.

Example cast vote record from Maine’s 2nd Congressional District, 2018.<sup>40</sup>

Election officials can create CVRs at any time – throughout the unofficial reporting process or when producing official results. Centralizing election data to create CVRs requires either physical or digital transportation. Physical transportation means driving or flying flash drives holding election data from polling places to a central location, such as a county elections office, where CVR data can be produced using election management software. Digital transportation will likely take the form of uploading election data using a secure file transfer protocol (FTP), where it can be accessed by authorized individuals at a central counting location.<sup>41</sup>

Physical and digital transportation have differing benefits and drawbacks. In general, physical transportation means round-by-round results will be somewhat slower to release. Driving or flying flash drives from polling places to a central location will take anywhere from minutes to hours, depending on the size of the jurisdiction holding an RCV election. Digital transportation will be much faster, taking seconds or minutes to upload election files to secure FTP sites. Election administrators already rely on physical transportation to distribute their voting systems to polling places and to return those voting systems to secure warehouses where voting systems are stored between elections. This means the policies and procedures already in place for the transportation of voting systems should be easily adapted to centralize election data.

<sup>40</sup> Maine Secretary of State, November 6, 2018 - General Election - Ranked-choice office, <https://www.maine.gov/sos/cec/elec/results/results18.html#Nov6> (last visited Mar. 23, 2023).

<sup>41</sup> Wisconsin Elections Commission, FAQs on Election Night Results Transmission, <https://elections.wi.gov/elections/voting-equipment-wisconsin/election-results-transmission#230548828-2732736158> (last visited Mar. 22, 2023).



## HAND-COUNT BALLOTS AND RANKED CHOICE VOTING

Some cities and counties in the United States still hand count their elections. Hand counting an RCV election is possible. As with any election, however, the more ballots there are, the harder it will become to hand count. If a city or county that hand counts their elections is located in a state running a statewide RCV election, the ballots from that city or county will need to be digitized in order to produce RCV results. There are four ways to handle this:

1. Create a CVR by hand based on the ballots cast in the jurisdiction;
2. Provide scanning machines to hand-count jurisdictions;
3. Send ballots over to a neighboring city or county with scanning systems to scan in hand-count ballots; or
4. Centralize ballots to the state to scan in hand-count ballots.

Each option has benefits and drawbacks.

Option 1 keeps things low-tech but introduces the greatest potential for human error in creating the CVR.

Option 2 keeps ballots in the hand-count jurisdiction but may be a political nonstarter in a jurisdiction that hand counts ballots. It may also be too expensive to purchase voting systems in smaller jurisdictions. Option 3 will create RCV data quickly but requires that the jurisdiction relinquish some control over its ballots. Option 4 will also create data quickly; it may take more time than option 3 to centralize ballots to the state, however, and still requires that localities relinquish control of their ballots. The drawbacks of Options 3 and 4 can be mitigated by using strict chain of custody protocols and ensuring that a representative from the hand-count county is present for all stages of the count. Option 4 is currently used to scan in hand-count ballots in both Alaska and Maine.<sup>43</sup> More detailed information and analysis are available in RCVRC's *How to Produce RCV Results* policy brief.<sup>43</sup>

Digital transportation, on the other hand, may be less readily available to election administrators. Because of the sensitive nature of election data, setting up a secure digital transportation network is paramount to ensuring elections remain trustworthy. Some jurisdictions already rely on FTP networks for sending and receiving data, such as CVRs, while others rely entirely on physical transportation networks for transmitting election data.<sup>44</sup> Digital transportation may also receive more scrutiny and be perceived as less secure than physical transportation.

Election administrators need to consider what resources they already have available, what work is necessary to adapt pre-existing processes to RCV data centralization, and any resources necessary to implement novel approaches to determine the most realistic method for centralizing election results. A specific analysis of the conditions in Iowa is outside the scope of this assessment, but additional research can be conducted upon request. This analysis will now consider the processes available for actually producing RCV results.

<sup>42</sup> Alaska Division of Elections, *Alaska's Ballot Counting System*, <https://www.elections.alaska.gov/Core/alaskavotecountingsystems.php> (last visited Mar. 8, 2023); 29-250-535 Me. Code R. § 5.

<sup>43</sup> Ranked Choice Voting Resource Center, *supra* note 34.

<sup>44</sup> Interview with Denver, Colorado, election administrators.



## PRODUCING RCV RESULTS

As election data begins to arrive from precincts, counting centers, and other counting locations, administrators will upload that data to their election management software. Administrators will then process the round-by-round count and produce RCV results using their RCV tabulation software. When using RCV tabulation software, producing round-by-round counts takes only seconds or minutes. Election administrators can run that round-by-round count as ballots come in, while complying with any legal timelines governing when they may produce election results.

Producing the round-by-round count requires administrators to have RCV tabulation software compatible with the state's RCV counting rules and the data coming out of their voting systems. Iowa has a patchwork of voting systems from many different voting system vendors. Those vendors produce CVRs in proprietary formats that do not work in other vendors' systems. Therefore, Iowa would need a tabulation tool that can take in CVRs from multiple different voting system vendors at once to run their round-by-round count. RCVRC's RCTab can handle CVRs from multiple different voting systems, but it cannot yet handle data from multiple different voting systems at once.<sup>45</sup> That feature is under development now. The tabulator is open source and available for free from RCVRC.<sup>46</sup>

### FIRST-CHOICE RESULTS

Before round-by-round results are produced, first-choice totals can be reported as unofficial results. First-choice totals are simple to produce: results tapes from voting equipment can print out first-choice totals in RCV elections, just as they print out vote totals in non-RCV elections.<sup>47</sup> As with non-RCV elections, those results can be reported back to the appropriate elections office, which can combine totals and publish just first-choice totals. First-choice results can only serve as temporary unofficial results, however. RCV results will ultimately require round-by-round results to determine final winners.

Consider Maine's results reporting practices. Maine communicates before its RCV elections to voters, press, and candidates that election night results include only the first round and that round-by-round results are produced about a week after the election.<sup>48</sup> A similar, transparent process could be adopted in Iowa to ensure all stakeholders know when election results are released.

## WHEN TO PRODUCE RCV RESULTS

Deciding when to produce round-by-round RCV results depends on a number of factors election administrators may want to consider. This list provides the primary considerations RCVRC has heard from election officials. Best practice is to produce round-by-round RCV results as ballots come in, with updates provided each time ballot totals for all contests are provided. This is discussed in greater detail in RCVRC's and FairVote's Results Reporting Best Practices document, as well as RCVRC's *How to Produce RCV Results* policy brief.<sup>49</sup>

<sup>45</sup> Ranked Choice Voting Resource Center, *RCTab*, <https://www.rcvresources.org/rctab> (last visited Aug. 26, 2023).

<sup>46</sup> The tabulator is compatible with Dominion, ES&S, Hart, and Unisyn data.

<sup>47</sup> See Election Assistance Commission, *supra* note 28.

<sup>48</sup> Press Release, Matthew Dunlap, Maine Secretary of State, *Ranked Choice Voting Tabulations* (Nov. 1, 2018), <https://www.maine.gov/sos/news/2018/rcvtabulation.html>; Equal Democracy Project & Ranked Choice Voting Resource Center, *supra* note 35.

<sup>49</sup> FairVote & Ranked Choice Voting Resource Center, *supra* note 34; Ranked Choice Voting Resource Center, *supra* note 34.



#### Size of the state (physical)

- » This is most relevant when considering physical centralization.

#### Size of the state (population)

- » This impacts the number of ballots to count.

#### Centralization method

- » Physical transportation makes it more cumbersome to repeatedly centralize CVR data as more ballots are counted; digital transportation is much more efficient for rapidly updating CVR data.

#### Length of time a jurisdiction has used RCV

- » This will impact how candidates react to being eliminated in unofficial results and the public's comfort with how reported results shift as more ballots get counted.

#### Discretion of the election administrator

- » Determined by any results production timelines set out in law as well as that administrator's comfort level with producing and explaining RCV results

#### Share of ballots ready to be processed according to RCV rules/share of ballots available on CVRs at RCV counting location

- » Administrators may want to wait to run the round-by-round count until some share of ballots are counted and included in CVR data (whether that means all ballots or a substantial portion of ballots, like 80%).

#### Post-Election-Day ballot counting processes

- » Ballot receipt deadlines
- » Ballot cure deadlines
- » Ballot counting timelines

Post-Election-Day ballot counting processes impact or are impacted by all aspects of the process - the share of ballots counted, the state's population, the centralization method, the physical size of the state, the length of time a jurisdiction has used RCV, and the election administrator's power of discretion. Longer ballot counting timelines mean more ballots will be counted after Election Day; physical transportation will make it more cumbersome to update CVR data as ballots are counted after Election Day; election administrator comfort with producing unofficial RCV results when many ballots are counted after Election Day will be impacted by the voting public's familiarity with RCV and the administrator's comfort with RCV.

## DISPLAYING RCV RESULTS

After round-by-round results are produced, displaying them in an easy-to-understand format is fundamental to ensuring voters understand and accept the results. The Center for Civic Design (CCD) has produced a report describing best practices for results reporting.<sup>50</sup> RCVis implements best practices for displaying round-by-round results and is free to use. It is compatible with results data from ES&S, Dominion, and RCTab RCV contests.<sup>51</sup>

<sup>50</sup> Whitney Quesenbery and Taapsi Ramchandani, *Best Practices for Ranked Choice Voting Ballots and Other Materials*, Center for Civic Design (Feb. 28, 2017), [https://drive.google.com/file/d/1T\\_u5h4RZ1rTu6\\_OBXnxBVDSrndsGFOV9/view](https://drive.google.com/file/d/1T_u5h4RZ1rTu6_OBXnxBVDSrndsGFOV9/view); Ranked Choice Voting Resource Center, *Reports*, <https://www.rcvresources.org/reports> (last visited Mar. 8, 2023).

<sup>51</sup> RCVis.com, <http://www.RCVis.com> (last visited Mar. 3, 2023).



## 6 RCV Audits

Election officials conduct post-election audits to ensure votes are recorded and tallied as cast and to help ensure public confidence in elections.<sup>52</sup> Two primary types of audits exist: conventional audits and risk-limiting audits (RLAs). Ranked choice voting (RCV) elections in the United States are regularly subject to conventional audits.<sup>53</sup> Conventional or traditional audits have two major steps:

- » Election administrators randomly select voting machines used in a given election; then,
- » Election administrators compare the paper record of ballots from the machines being audited to the digital results produced by those voting machines.<sup>54</sup>

Single-winner and proportional RCV races<sup>55</sup> in the Bay Area and Minneapolis are regularly audited using conventional audit procedures. For example, Minneapolis randomly selects two RCV contests to audit – one single-winner and one proportional. The city then selects one precinct from each contest and manually reviews every ballot in that precinct. City of Minneapolis staff compare the total number of rankings each candidate received in that precinct to digital records from the scanners used in each precinct. If these totals match, the audit is complete. If vote totals differ, the audit will expand.<sup>56</sup> Bay Area audits follow similar procedures.<sup>57</sup>

RLAs are the gold standard of post-election tabulation audits. They review a randomized sample of ballots to provide strong evidence that the election outcome is correct. RLAs are the most efficient type of audit and can be implemented in single-winner RCV contests.<sup>58</sup> RLAs are reliable and efficient, but they are uncommon in the United States and have rarely been used in RCV elections. Additional RLAs of RCV need to be conducted to firmly establish RCV RLA practices and tools and to ease RCV RLA adoption across the United States.<sup>59</sup>

## 7 RCV Recounts

Recounts are an important part of the election process, conducted to check the results of close elections or when a losing candidate requests a recount. Recounts tend to happen in small, local elections that fall under the radar. Statewide recounts, while relatively rare, are high-profile events that attract scrutiny from across the country. When conducted successfully and transparently, recounts can build trust in elections regardless of their outcome.

Ranked choice voting (RCV) changes the way votes get counted and so changes the way recounts are conducted. Recount policy varies widely by state. To capture the many ways RCV elections have been recounted across the

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<sup>52</sup> Verified Voting, *The Verifier – Post-Election Audits – November 2022*, <https://verifiedvoting.org/verifier/#mode/navigate/map/auditLaw/mapType/audit/year/2022> (last visited Mar. 3, 2023).

<sup>53</sup> Ranked Choice Voting Resource Center, *Auditing Ranked Choice Voting* (Mar. 29, 2018), <https://www.rcvresources.org/auditing-ranked-choice-voting>.

<sup>54</sup> Audit laws may be written to audit precincts or to audit machines. Either way, voting machines are the things being reviewed – in a precinct-based law, the voting machines used in that precinct are audited. In a voting machine law, a random assortment of machines from across the election jurisdiction (city, county, or state) are audited instead of a specific precinct.

<sup>55</sup> Ranked Choice Voting Resource Center, *Types of RCV*, <https://www.rcvresources.org/types-of-rcv> (last visited Mar. 7, 2023).

<sup>56</sup> Ranked Choice Voting Resource Center, *supra* note 53.

<sup>57</sup> *Id.*

<sup>58</sup> Chris Hughes, *Post-Election Audits and Ranked-Choice Voting*, Ranked Choice Voting Resource Center 4 (Aug. 2022), <https://www.rcvresources.org/blog-post/post-election-audits-and-ranked-choice-voting>.

<sup>59</sup> *Id.*



United States, the Ranked Choice Voting Resource Center produced its *Recounts of Ranked Choice Voting Elections* report.<sup>60</sup> The report includes guiding questions to help election administrators and other interested parties identify effective ways to adapt their pre-existing recount policies to RCV elections.

## 8 Voting Systems in Iowa

Voting systems are the combination of hardware (scanners, direct-recording electronic units (DREs), and/or ballot marking devices) and software used to conduct an election. Election administrators use voting systems to design ballots, set up the rules of an election, cast ballots, capture ballots, count election results, and produce results.<sup>61</sup> Voting systems are a fundamental component of running elections in the United States. The ability of those systems to run a ranked choice voting (RCV) election depends on the age of the equipment in use, the software installed on the voting equipment, and the vendor providing the equipment.<sup>62</sup>

Iowa has 99 counties.<sup>63</sup> Of those, 98 counties have voting systems capable of conducting an RCV election, or what we call RCV capable.<sup>64</sup> Those counties contain 99.43% of registered voters. One county uses equipment that is not capable of RCV (0.57% of registered voters). All voting equipment data used here was obtained from Verified Voting's Verifier.<sup>65</sup> The data on that site is updated continuously. The analysis in this section uses the 2024 Verifier data as of August 10th, 2023. Voter registration data for this assessment was published on July 5th, 2023, by the Iowa Secretary of State.<sup>66</sup> The data appears to be updated regularly, so exact figures may change.

Voting system  
assessment

Prepping for RCV

99% of jurisdictions have  
RCV-capable equipment

The State of Iowa requires EAC certification of voting systems before use. The Board of Examiners for Voting Systems, consisting of 3 members, certifies equipment for use in Iowa after that equipment is certified by the EAC to meet the Voluntary Voting System Guidelines.<sup>67</sup> Once the Board of Examiners has certified the equipment, the Secretary of State sends a notice of certification to all governing bodies of the state's counties. Iowa's requirement that voting systems be tested by a federally certified lab to federal standards and certified by the EAC is the highest

<sup>61</sup> Chris Hughes and Ryan Kirby, *Recounts of Ranked Choice Voting Elections*, Ranked Choice Voting Resource Center (Aug. 2022), <https://www.rcvresources.org/blog-post/recounts-of-ranked-choice-voting-elections>.

<sup>62</sup> U.S. Election Assistance Commission, *Voluntary Voting System Guidelines*, <https://www.eac.gov/voting-equipment/voluntary-voting-system-guidelines> (last visited Mar. 3, 2023).

<sup>63</sup> Iowa State Association of Counties, *About*, <https://www.iowacounties.org/about/> (last visited Sept. 8, 2023).

<sup>64</sup> Ranked Choice Voting Resource Center, *2023 Iowa RCV Maps Data* (last updated Aug. 11, 2023), [https://docs.google.com/spreadsheets/d/1tFpN2FTXllJm01FbZTOp3jArF\\_6invnt-CamOWSSSU/edit?usp=drive\\_link](https://docs.google.com/spreadsheets/d/1tFpN2FTXllJm01FbZTOp3jArF_6invnt-CamOWSSSU/edit?usp=drive_link).

<sup>65</sup> Verified Voting, *The Verifier – First Year in Use in Iowa – November 2022*, <https://verifiedvoting.org/verifier/#mode/navigate/map/fieldedEquip/mapType/ppEquip/year/2022/state/19> (last visited Aug. 11, 2023).

<sup>66</sup> Iowa Secretary of State, *State of Iowa Voter Registration Totals*, (last updated Aug 11, 2023), <https://sos.iowa.gov/elections/pdf/VRStatsArchive/2023/CoJul23.pdf>.

<sup>67</sup> Iowa Code §§ 52.4, 52.5, 52.26; Iowa Admin. Code r. 721-22.2, r. 721-22.5.



level of scrutiny that voting equipment is subject to. It can take up to 18 months to test and certify a voting system under this requirement.<sup>68</sup> If RCV is adopted in Iowa, state law or state officers may impose RCV-specific testing and certification requirements for RCV-capable voting systems.

Four major vendors of election equipment in the United States have varying levels of compatibility with RCV: Dominion Voting Systems, Election Systems and Software (ES&S), Hart InterCivic, and Unisyn Voting Systems.<sup>69</sup> These vendors include RCV compatibility in their systems through general software updates and through RCV-specific counting software add-ons. Four other vendors of election equipment in the United States do not yet have RCV capability available on their systems: Clear Ballot, Microvote, Smartmatic, and Voting Works.<sup>70</sup> While these assessments categorize voting systems by their RCV compatibility, access to any RCV features may require software updates. Voting system software versions indicate whether a voting system has RCV compatibility. That level of detail is not included in this assessment, but it can be researched and included in a more detailed assessment upon request. More information on how we categorized states and voting equipment is available in the *How We Score States Guide*.<sup>71</sup>

It can be possible to have RCV elections counted round-by-round by a voting system vendor's equipment, which is the most cost-effective solution. Other times, voting systems cannot run that sort of count internally, but the machines can capture RCV ballots. In that case, the data from those ballots need to be exported and run through third-party software capable of running the round-by-round count. The following analysis discusses options for running the RCV count in Iowa using the state's current voting systems.

## COUNTIES WITH RCV-CAPABLE VOTING SYSTEMS

Seven counties use **Dominion's** Democracy Suite software with ImageCast Precinct and ImageCast Precinct BMD equipment. Single-winner and proportional RCV ballots can be processed and counted through ImageCast machines. Dominion offers built-in RCV tabulation software and services at a price, and pricing or activation would need to be determined in discussions with the vendor. Round-by-round results are available through Democracy Suite software version 5.2 or higher, provided a jurisdiction has Dominion's RCV tabulation software. RCVRC's RCTab software can also run the round-by-round count on cast vote records (CVRs) from this hardware.<sup>72</sup> Dominion equipment can produce a ballot with both RCV and non-RCV contests. Ballots are limited to a total of 10 rankings on a grid-style ballot. A table of these counties is available in the [appendix](#).

Twenty counties use RCV-capable **ES&S** equipment. Those counties use DS200, DS450, DS850, and/or ExpressVote equipment. Single-winner and proportional RCV ballots can be designed, scanned, and captured in this system. While this data can be captured by these systems, ES&S is currently limited to tabulating the RCV round-by-

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<sup>68</sup> Once a vendor has had a system tested by a lab, it receives a report outlining the results of that test. That report can then be submitted to the EAC if the vendor is looking for EAC certification (the highest level of testing/certification for voting systems in the US) or a vendor can submit that report to a given State's certification authority (typically through the Secretary of State's office). The certification authority then reviews the testing report and may order additional in-state testing. Following the review and any additional testing, the authority may certify or decline to certify that voting system for use in that state. If any changes are made to a system after testing, it will need to be retested and resubmitted for certification.

<sup>69</sup> Ranked Choice Voting Resource Center, *Major Voting Equipment Vendors' Ranked Choice Voting Capabilities v.3.0* (Mar. 2023), <https://drive.google.com/file/d/1DzHqkabZV1Tdo12DGam2DQikfTjYezk2/view>.

<sup>70</sup> *Id.*

<sup>71</sup> Ranked Choice Voting Resource Center, *supra* note 2.

<sup>72</sup> Ranked Choice Voting Resource Center, *supra* note 45.



round count for single-winner RCV. This feature is available through its separate tabulation module, ExpressRunoff, provided a jurisdiction has the necessary software upgrades. For proportional RCV, cast vote records (CVRs) will need to be exported and run through third-party tabulation software to determine the winners in an RCV race. RCVRC's RCTab software can run the round-by-round count on CVRs exported from this hardware as-is for RCV results for both single-winner and proportional RCV.<sup>73</sup> ES&S equipment can produce a ballot with both RCV and non-RCV contests. Both grid-style and column-style RCV ballots can be designed within this system. The number of rankings vary depending on the ballot layout (portrait or landscape) and the number of contests on the page. A table of these counties is available in the [appendix](#).

Seventy-one counties have RCV-capable **Unisyn** equipment. Those counties use OpenElect FVS, OpenElect OVCS, OpenElect OVO, OpenElect FVT, OpenElect OVI, and/or OpenElect OVI-VC equipment. Single-winner and proportional RCV ballots can be scanned and captured with that equipment. Software upgrades may be needed to gain access to all RCV functionality available from Unisyn. Unisyn's RCV capability is EAC certified. RCVRC's RCTab software can run the round-by-round count on data from this hardware.<sup>74</sup> Ballots are limited to three rankings in a grid style. A table of these counties is available in the [appendix](#).

## COUNTIES WITH NOT-RCV-CAPABLE VOTING SYSTEMS

One county uses legacy (the previous generation) **ES&S** equipment, Model 100 and AutoMARK. This older equipment can scan RCV ballots but does not export a cast vote record (CVR), making software-assisted counting of RCV elections impossible if using this hardware. Counties using this equipment either need to replace their equipment or hand count their RCV elections (possible in smaller elections). This county is listed in the [appendix](#).

## 9 Conclusion

While 99% of Iowa counties have modern, RCV-capable voting equipment, which consists of 99.43% of registered voters in the state, one county still uses not-RCV-capable equipment that would require replacement or a workaround before implementation. Because 99% of Iowa counties have RCV-capable equipment, they fall in our **Prepping for RCV** category, meaning their voting system infrastructure is not yet 100% ready for RCV. Still, substantial progress towards that goal has been made.

If interested in a more detailed assessment of your state, please reach out to the Ranked Choice Voting Resource Center ([info@rcvresources.org](mailto:info@rcvresources.org) or 1-833-VOTE-RCV), and we can work with you on producing such an assessment.

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<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

# APPENDIX

## Counties with RCV-capable voting systems

County Name	Vendor	Ballot Scanner	Ballot Marking Device (BMD)	Total Registered Voters	Percent of State
<b>Adair</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	5,331	0.24%
<b>Adams</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	2,765	0.13%
<b>Allamakee</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	9,677	0.44%
<b>Appanoose</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	8,662	0.40%
<b>Audubon</b>	Unisyn	OpenElect FVS	OpenElect FVT	4,147	0.19%
<b>Benton</b>	Unisyn	OpenElect OVO	OpenElect FVT	18,400	0.84%
<b>Black Hawk</b>	ES&S	DS200 & DS850	ExpressVote	85,744	3.92%
<b>Boone</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	19,683	0.90%
<b>Bremer</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	17,874	0.82%
<b>Buchanan</b>	Unisyn	OpenElect OVO	OpenElect FVT	13,964	0.64%
<b>Buena Vista</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	11,861	0.54%
<b>Butler</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	10,106	0.46%
<b>Calhoun</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	6,622	0.30%
<b>Carroll</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	14,708	0.67%
<b>Cass</b>	Unisyn	OpenElect FVS & OpenElect OVCS	OpenElect FVT	9,416	0.43%
<b>Cedar</b>	ES&S	DS200 & DS450	ExpressVote	12,805	0.59%
<b>Cerro Gordo</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI	30,765	1.41%
<b>Cherokee</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	8,024	0.37%



<b>Chickasaw</b>	Unisyn	OpenElect OVO & OpenElect OVCS	OpenElect FVT	8,145	0.37%
<b>Clarke</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	6,091	0.28%
<b>Clay</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	11,612	0.53%
<b>Clayton</b>	ES&S	DS200	ExpressVote	12,103	0.55%
<b>Clinton</b>	ES&S	DS200 & DS850	ExpressVote	33,311	1.52%
<b>Crawford</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	9,858	0.45%
<b>Dallas</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI	73,243	3.35%
<b>Davis</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	5,089	0.23%
<b>Decatur</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	4,807	0.22%
<b>Delaware</b>	ES&S	DS200	ExpressVote	12,193	0.56%
<b>Des Moines</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	27,412	1.25%
<b>Dickinson</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	14,393	0.66%
<b>Dubuque</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	69,424	3.17%
<b>Emmet</b>	Unisyn	OpenElect OVO	OpenElect FVT	6,467	0.30%
<b>Floyd</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	10,653	0.49%
<b>Franklin</b>	Unisyn	OpenElect FVS	OpenElect FVT	6,531	0.30%
<b>Fremont</b>	Unisyn	OpenElect FVS	OpenElect FVT	4,969	0.23%
<b>Greene</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	6,374	0.29%
<b>Grundy</b>	ES&S	DS200	ExpressVote	8,952	0.41%
<b>Guthrie</b>	Unisyn	OpenElect OVO	OpenElect FVT	8,225	0.38%
<b>Hamilton</b>	Unisyn	OpenElect OVO	OpenElect FVT	10,031	0.46%
<b>Hancock</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	7,670	0.35%



<b>Hardin</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	11,456	0.52%
<b>Harrison</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	9,052	0.41%
<b>Henry</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	13,246	0.61%
<b>Howard</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	6,238	0.29%
<b>Humboldt</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	6,595	0.30%
<b>Ida</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	4,828	0.22%
<b>Iowa</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	12,347	0.56%
<b>Jackson</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	14,514	0.66%
<b>Jasper</b>	ES&S	DS200 & DS850	ExpressVote	26,397	1.21%
<b>Jefferson</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	11,324	0.52%
<b>Johnson</b>	ES&S	DS200 & DS850	ExpressVote	109,260	4.99%
<b>Jones</b>	ES&S	DS200	ExpressVote	14,005	0.64%
<b>Keokuk</b>	Unisyn	OpenElect OVO	OpenElect FVT	6,684	0.31%
<b>Kossuth</b>	ES&S	DS200	ExpressVote	10,883	0.50%
<b>Lee</b>	ES&S	DS200	ExpressVote	22,335	1.02%



<b>Linn</b>	ES&S	DS200 & DS850	ExpressVote	159,166	7.27%
<b>Louisa</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	7,211	0.33%
<b>Lucas</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	6,012	0.27%
<b>Lyon</b>	Unisyn	OpenElect OVO	OpenElect FVT	8,625	0.39%
<b>Madison</b>	Unisyn	OpenElect OVO	OpenElect OVI	12,169	0.56%
<b>Mahaska</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	14,495	0.66%
<b>Marion</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	24,327	1.11%
<b>Marshall</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI	24,092	1.10%
<b>Mills</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	11,275	0.52%
<b>Mitchell</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	7,213	0.33%
<b>Monona</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	5,537	0.25%
<b>Monroe</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	5,197	0.24%
<b>Montgomery</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	7,158	0.33%



<b>Muscatine</b>	ES&S	DS200& DS450	ExpressVote	28,445	1.30%
<b>O'Brien</b>	Unisyn	OpenElect OVCS & OpenElect FVS	OpenElect FVT	9,574	0.44%
<b>Osceola</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	4,164	0.19%
<b>Page</b>	Unisyn	OpenElect OVO	OpenElect FVT	10,208	0.47%
<b>Palo Alto</b>	ES&S	DS200	ExpressVote	6,232	0.28%
<b>Plymouth</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	17,952	0.82%
<b>Pocahontas</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	4,942	0.23%
<b>Polk</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI	328,513	15.01%
<b>Pottawattamie</b>	ES&S	DS200 & DS850	ExpressVote	63,565	2.90%
<b>Poweshiek</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	14,051	0.64%
<b>Ringgold</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	3,262	0.15%
<b>Sac</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	7,100	0.32%
<b>Scott</b>	ES&S	DS200 & DS850	ExpressVote	126,365	5.77%



<b>Shelby</b>	Unisyn	OpenElect OVO	OpenElect FVT	8,581	0.39%
<b>Sioux</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	23,092	1.06%
<b>Story</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	69,325	3.17%
<b>Tama</b>	ES&S	DS200	ExpressVote	11,364	0.52%
<b>Taylor</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	3,953	0.18%
<b>Union</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	8,191	0.37%
<b>Van Buren</b>	ES&S	DS200	ExpressVote	4,875	0.22%
<b>Wapello</b>	ES&S	DS200	ExpressVote	21,134	0.97%
<b>Warren</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	38,956	1.78%
<b>Washington</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect OVI-VC	15,278	0.70%
<b>Wayne</b>	Dominion	ImageCast Precinct	ImageCast Precinct BMD	3,829	0.17%
<b>Webster</b>	Unisyn	OpenElect FVS	OpenElect FVT	24,593	1.12%
<b>Winnebago</b>	Unisyn	OpenElect FVS	OpenElect OVI-VC	7,853	0.36%



<b>Winneshiek</b>	Unisyn	OpenElect OVO	OpenElect OVI-VC	14,696	0.67%
<b>Woodbury</b>	ES&S	DS200 & DS850	ExpressVote	62,745	2.87%
<b>Worth</b>	Unisyn	OpenElect OVCS & OpenElect OVO	OpenElect FVT	5,474	0.25%
<b>Wright</b>	Unisyn	OpenElect FVS	OpenElect FVT	7,850	0.36%
			<b>RCV Capable Total:</b>	2,175,910	99.43%
			<b>Statewide Registered Voters:</b>	2,188,276	Last Updated: August 2023

## Counties with Not-RCV-capable voting systems

<b>County Name</b>	<b>Vendor</b>	<b>Ballot Scanner</b>	<b>Ballot Marking Device (BMD)</b>	<b>Total Registered Voters</b>	<b>Percent of State</b>
<b>Fayette</b>	ES&S	Model 100	AutoMARK	12,366	0.57%
			<b>Not RCV Capable Total:</b>	12,366	0.57%
			<b>Statewide Registered Voters:</b>	2,188,276	Last Updated: August 2023



# Grid Ballots

## BEST PRACTICES GRID BALLOT

More usability resources are available on this page:

<https://www.rcvresources.org/reports>.

Only ballot pages with RCV contests are shown for the vendor ballots below. Full ballots are available here:

<https://drive.google.com/drive/folders/1mvlHfptmN4lgHVotdLLb9fMJ778ihbgB>.



**Official Ballot**

Franklin County, California General Election Tuesday, November 6, 2012

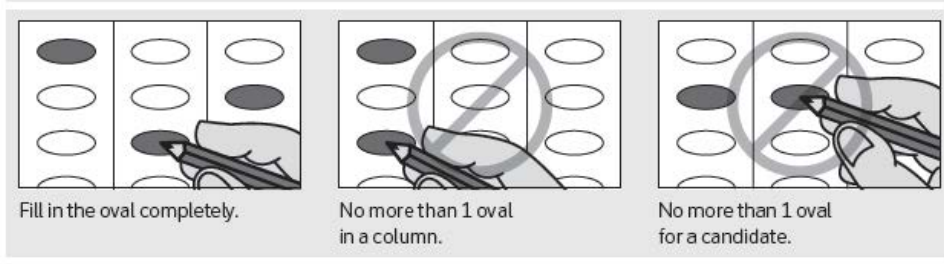
2/2

### 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



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
<b>Frederick Sharp</b> Orange Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Luis Garcia</b> Orange Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Charles Layne</b> Yellow Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Andrew Kowalski</b> Yellow Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Alex Wallace</b> Purple Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Eric Savoy</b> Purple Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Barbara Williams</b> Tan Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Lillian Cohen</b> Lime Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Ann Windsock</b> Independent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Markos Miller</b> Silver Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Elizabeth Harp</b> Silver Party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



# DOMINION GRID BALLOT WITH WRITE-INS – ALASKA (2022)

SAMPLE BALLOT



**State of Alaska Official Ballot**  
**November 8, 2022**  
**General Election**

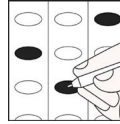
**House District 30**  
**Judicial District 3**

743

**PLEASE NOTE:** A candidate's designated affiliation does not imply that the candidate is nominated or endorsed by the political party or group or that the party or group approves of or associates with that candidate, but only that the candidate is registered as affiliated with the party or group.

**Instructions:**

- Do not use red ink or a pencil to mark your ballot.
- Rank as many or as few candidates as you like.
- Completely fill in no more than one oval for each candidate or column.
- For your 1st choice, fill in the oval in the 1st choice column.
- For your 2nd choice, fill in the oval in the 2nd choice column.
- For your 3rd choice, fill in the oval in the 3rd choice column, and so on.
- If you make a mistake, you can ask for a new ballot.



**United States Senator**

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice
<b>Kelley, Buzz A.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Murkowski, Lisa</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Tshibaka, Kelly C.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Chesbro, Patricia R.</b> (Registered Democrat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**United States Representative**

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice
<b>Bye, Chris</b> (Registered Libertarian)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Palin, Sarah</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Peltola, Mary S.</b> (Registered Democrat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Begich, Nick</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Governor / Lieutenant Governor**

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice
<b>Gara, Les / Cook, Jessica A.</b> (Registered Democrat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Pierce, Charlie / Grunwald, Edie</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Walker, Bill / Drygas, Heidi</b> (Nonpartisan)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Dunleavy, Mike / Dahlstrom, Nancy</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**State Senator District O**

	1st Choice	2nd Choice	3rd Choice
<b>Massie, Doug A.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Shower, Michael K.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**State Representative District 30**

	1st Choice	2nd Choice	3rd Choice	4th Choice
<b>Holmes, Doyle E.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>McCabe, Kevin J.</b> (Registered Republican)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Mindiola, L. Joy</b> (Registered Democrat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue Voting on Next Side



# DOMINION GRID BALLOT WITH WRITE-INS – BURLINGTON, VT (2022)

## OFFICIAL BALLOT SPECIAL ELECTION BURLINGTON, VERMONT DECEMBER 6, 2022 EAST DISTRICT

### INSTRUCTIONS TO VOTERS RANKED CHOICE VOTING

Use BLACK PEN to fill in the ovals. **DO NOT USE PENCIL.**

To vote:

- Completely fill in the oval in the 1st column for your 1st choice candidate.
- Optionally, fill in the oval in the 2nd column for your 2nd choice candidate.
- Continue to rank as many or as few of the candidates as you would like.
- To rank a write-in candidate, write the person's name in the write-in space and fill in the oval that corresponds with the ranking of your choice.
- **Fill in no more than one oval per column.**
- **Fill in no more than one oval per candidate.**
- **Do not skip rankings.** For example, do not fill in 1st and 3rd choices without filling in a 2nd choice.
- If you make a mistake, tear, or deface the ballot, return it to an election official and obtain another ballot. **DO NOT ERASE.**

Please ask any election official or poll worker if you need assistance.

### EAST DISTRICT CITY COUNCILOR

Term Ending April 3, 2023

Only ONE vote per candidate. Only ONE vote per column.

		1st Choice	2nd Choice	3rd Choice	4th Choice
<b>MAEA BRANDT</b> Burlington	Democratic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>DINA JOHN</b> Burlington	Progressive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>JAKE SCHUMANN</b> Burlington	Independent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>(Write-in)</b>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



ES&S GRID BALLOT WITH WRITE-INS – PORTLAND, ME (2022)

OFFICIAL BALLOT  
 PORTLAND, MAINE  
 GENERAL MUNICIPAL ELECTION  
 DISTRICT 3  
 NOVEMBER 8, 2022

*Ashley M. Rand*  
 CITY CLERK

INSTRUCTIONS TO VOTERS

- A. To vote, complete the oval(s)  next to your choice(s), like this:
- B. Follow the special instructions for the City Council At-Large & School Board District 3.
- C. To vote for a write-in candidate, write the person's name in the write-in space and fill in an oval next to the name.
- D. If you make a mistake, do not erase; ask for a new ballot.

**Special Instructions:** Rank Candidates for City Council At-Large and School Board District 3 in order of Choice.

- Fill in the first oval to the right of your 1st choice.
- Select a 2nd choice, fill in the 2nd choice oval to the right of the candidate.
- Continue until you have ranked all your choices.
- You may rank as many or as few candidates as you wish.
- Fill in no more than one oval per candidate.
- Fill in no more than one oval per column.

City Council At-Large One Seat to Fill Three (3) Year Term (Rank candidates in order of choice) No more than <u>one</u> oval per column. No more than <u>one</u> oval per candidate.	1st Choice	2nd Choice	3rd Choice
<b>Ali, Pious A.</b> 184 Pearl Street, #307	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Mohaldeen, Aqeel J.</b> F 2 Clairmont CT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Ward, Richard L.</b> 457 Cumberland Avenue, #4  Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Board District 3 One Seat to Fill Three (3) Year Term (Rank candidates in order of choice) No more than <u>one</u> oval per column. No more than <u>one</u> oval per candidate.	1st Choice	2nd Choice	3rd Choice
<b>Burk, Adam M.</b> 34 Presnell Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Opperman, Julianne R.</b> 25 Woodmont Street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Rosenthal, Samuel H.</b> 32 Celebration CT, Unit 10  Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

City Council District 3 Three Year Term Vote For One
<b>Ferguson, Nathaniel R.</b> 44 Exeter Street <input type="radio"/>
<b>Phillips, Regina L.</b> 4 Dale Street <input type="radio"/>
Write-in <input type="radio"/>

School Board At-Large Three Year Term Vote For Two
<b>Grant, Benjamin K.</b> 24 Catherine Street <input type="radio"/>
<b>Lentz, Sarah M.</b> 27 Allington Street, #1 <input type="radio"/>
Write-in <input type="radio"/>
Write-in <input type="radio"/>

Portland Water District Trustee Five Year Term Vote For One
<b>Libby, Gary W.</b> 86 Forest Avenue <input type="radio"/>
Write-in <input type="radio"/>

Portland Water District Trustee One Year Term Vote For One
<b>McCann, Frederick L.</b> 244 Danforth Street, #1 <input type="radio"/>
Write-in <input type="radio"/>

SAMPLE BALLOT

THIS IS A TWO SIDED BALLOT

Typ:01 Seq:0004 Spl:01



# ES&S GRID BALLOT WITH WRITE-INS – NEW YORK CITY, NY (2021, PG. 1)

New York DEM ELE Style: 0110
1 of 2

**Official Ballot for the Democratic Primary Election**  
City of New York - County of New York  
June 22, 2021

**INSTRUCTIONS**

Rank candidates in the order of your choice. Mark the oval in the "1st choice" column for your first-choice candidate. Mark the oval in the "2nd choice" column for your second-choice candidate, and so on.

To rank a candidate whose name is not printed on the ballot, mark an oval next to the box labeled "write-in" and print the name clearly, staying within the box. You may mark as many or as few candidates as the numbered columns allow, but do not mark more than one oval per candidate. Ranking a second-choice candidate, third-choice candidate, and so on will not hurt your first-choice candidate. Do not mark more than one oval in any column. If you do, your vote may not count. Any mark or writing outside the spaces provided for voting may void the entire ballot.

You have a right to a replacement ballot. If you make a mistake, or want to change your vote, ask a poll worker for a new ballot.

**Papeleta Oficial para la Elección Primaria Democrática**  
Ciudad de Nueva York - Condado de Nueva York  
22 de Junio del 2021

**INSTRUCCIONES**

Clasifique los candidatos en orden de su preferencia. Marque el óvalo en la columna de "1a opción" para su candidato de primera opción. Marque el óvalo en la columna de "2a opción" para su candidato de su segunda opción, y así sucesivamente.

Para clasificar un candidato cuyo nombre no está impreso en la papeleta, marque un óvalo cerca de la casilla marcada "candidato por escrito" y escriba el nombre en letra de molde claramente, manteniéndose adentro de la casilla. Puede marcar tantos o tan pocos candidatos como permiten las columnas numeradas, pero no marque más de un óvalo por candidato. Clasificar un candidato de segunda opción, candidato de tercera opción y así sucesivamente no le hará daño a su candidato de primera opción. No marque más de un óvalo en ninguna columna. Si lo hace, puede que su voto no cuente. Cualquier otra marca o escritura fuera de los espacios proporcionados para votar puede anular la papeleta por completo.

Usted tiene derecho a una papeleta de reemplazo. Si hace un error, o desea cambiar su voto, pídale a un trabajador electoral una papeleta nueva.

**民主黨初選官方選票**  
紐約市 紐約郡 - 2021年6月22日

**說明**

按您選擇的順序對候選人進行排名。請在標有“寫入未列名候選人”的空格旁邊標記一個圓圈，並清楚地印出該候選人的姓名，不要超出空格。每項就選項目對列有候選人數，您可以給您選擇的兩名或更多候選人數允許的範圍內標記最多或少於候選人數允許的候選人。排名第二選擇候選人、第三選擇候選人等不會損害您的第一選擇候選人。請勿超過。如果您超過，您的選票將不被計算在內。任何在標記投票用的圓圈或空格之外所做的標記均將使整張選票作廢。

您有權以寫選票有這些表格換取一份新的選票，如果您誤填選票，或者您想更改您的投票，請向選票人員換取一份新的選票。

← Remember to vote both sides / Recuerde votar en ambos lados →

**Mayor**  
Rank up to 5 choices  
Mark no more than 1 oval in each column

**Alcalde**  
Clasifique hasta 5 opciones  
Marque no más de un óvalo en cada columna

**市長**  
最多5個排名選擇  
每項就選項目僅限標記一個圓圈

	Choice Option	Choice Option	Choice Option	Choice Option	Choice Option
	1st	2nd	3rd	4th	5th
Aaron S. Foldenauer 方棟豪	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dianne Morales 模泰安	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scott M. Stringer 斯靜格	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Raymond J. McGuire 雷蒙 J. 麥圭爾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maya D. Wiley 瑪雅 D. 威利	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paperboy Love Prince 佩珀柏依 樂夫 普林斯	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Art Chang 張哲熙	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kathryn A. Garcia 凱瑟琳 A. 賈西亞	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eric L. Adams 艾利克 L. 亞當斯	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isaac Wright Jr. 艾薩克 賴特 Jr.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shaun Donovan 尚恩 唐諾文	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Andrew Yang 楊安澤	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Joycelyn Taylor 喬伊絲琳 泰勒	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in candidato por escrito 寫入未列名候選人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Public Advocate**  
Rank up to 4 choices  
Mark no more than 1 oval in each column

**Defensor Público**  
Clasifique hasta 4 opciones  
Marque no más de un óvalo en cada columna

**公益維護人**  
最多4個排名選擇  
每項就選項目僅限標記一個圓圈

	Choice Option	Choice Option	Choice Option	Choice Option
	1st	2nd	3rd	4th
Anthony L. Herbert 安東尼 L. 賀伯特	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theo Bruce Chino Tavarez 西歐十野	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jumaane D. Williams 祖曼尼 D. 威廉斯	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in candidato por escrito 寫入未列名候選人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comptroller**  
Rank up to 5 choices  
Mark no more than 1 oval in each column

**Contralor**  
Clasifique hasta 5 opciones  
Marque no más de un óvalo en cada columna

**主計長**  
最多5個排名選擇  
每項就選項目僅限標記一個圓圈

	Choice Option	Choice Option	Choice Option	Choice Option	Choice Option
	1st	2nd	3rd	4th	5th
Michelle Caruso-Cabrera 蜜雪兒 卡魯索-凱布瑞拉	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zach Iscol 札克 艾斯科	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terri Liftin 泰莉 利夫騰	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alex Pan 潘佳仁	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brad Lander 布瑞德 藍德	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corey D. Johnson 柯瑞 D. 強生	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reshma Patel 蕊希瑪 帕特爾	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
David I. Weprin 大衛 I. 魏普林	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brian A. Benjamin 布萊恩 A. 班傑明	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kevin S. Parker 凱文 S. 帕克	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in candidato por escrito 寫入未列名候選人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



ES&S GRID BALLOT WITH WRITE-INS – NEW YORK CITY, NY (2021, PG. 2)

**OFFICIAL BALLOT**  
FOR THE  
DEMOCRATIC  
PRIMARY ELECTION  
JUNE 22, 2021  
CITY OF NEW YORK  
COUNTY OF NEW YORK

Election District Information

Frederic M. Umanet  
President  
Miguelina Cambó  
Jose Miguel Azeujo  
Gino A. Marmarino

Michael Michel  
Rodney L. Pege-Scaevitr  
Simon Sharnoun  
Patricia Anne Taylor  
Tiffany Townsend  
John Wm. Zaccaro  
Commissioners of Elections

68th Assembly District  
ED 5867

DEMELE Style: 0110

Remember to vote  
both sides  
Recuerde votar en  
ambos lados  
切記投票正頁及背頁

	Choice	Option	選擇	Option	選擇	Option	選擇	Option	選擇	Option	選擇
Borough President Rank up to 5 choices Mark no more than 1 oval in each column Presidente del Distrito Municipal Clasifique hasta 5 opciones Marque no más de un óvalo en cada columna 區長 最多5個排名選擇 每項就選項目僅限標記一個橢圓	1st	2nd	3rd	4th	5th						
Guillermo A. Perez 貴勒莫 A. 裴瑞斯	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Mark D. Levine 李文	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Elizabeth R. Caputo 伊莉莎白 R. 卡普托	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Brad M. Hoylman 霍曼	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Ben Kallos 班 凱洛斯	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Lindsey C. Boylan 琳賽 C. 柏伊蘭	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Kimberly R. Watkins 金柏莉 R. 瓦肯斯	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Write-in candidate por escrito 寫入未列名候選人	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>						
Council Member Rank up to 5 choices Mark no more than 1 oval in each column Miembro del Concejo Clasifique hasta 5 opciones Marque no más de un óvalo en cada columna 市議員 最多5個排名選擇 每項就選項目僅限標記一個橢圓	Choice	Option	選擇	Option	選擇	Choice	Option	選擇	Option	選擇	Option
Aleta A. LaFargue 艾立達 A. 樂法格	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arthur Z. Schwartz 亞瑟 Z. 史瓦茲	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phelan D. Fitzpatrick 菲蘭 D. 費茨派翠克	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marni Halasa 瑪爾妮 賀拉沙	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leslie Boghosian Murphy 萊絲莉 波卡賢 默菲	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Erik D. Bottcher 艾利克 D. 巴徹	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sample  
Ballot



## UNISYN GRID BALLOT WITH WRITE-INS

STATE ATTORNEY			
Vote For One in Each Rank			
	1	2	3
DALE THOMAS	Green <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GAYLE HEARST	Democrat <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALLISON BOOKER	Republican <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BLAKE SIMION	Peace and Freedom <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LARRY LEVINE	Non-Partisan <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Write-in <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			

sample paper ballot

STATE ATTORNEY			
Vote For One in Each Rank			
DALE THOMAS	Green	<input checked="" type="radio"/>	<input type="radio"/>
GAYLE HEARST	Democrat	<input type="radio"/>	<input type="radio"/>
ALLISON BOOKER	Republican	<input type="radio"/>	<input type="radio"/>
BLAKE SIMION	Peace and Freedom	<input type="radio"/>	<input checked="" type="radio"/>
LARRY LEVINE	Non-Partisan	<input type="radio"/>	<input checked="" type="radio"/>
WRITE-IN		<input type="radio"/>	<input type="radio"/>

sample digital ballot

# Column Ballots

## BEST PRACTICES COLUMN BALLOT



**Official Ballot**

Franklin County, California General Election Tuesday, November 6, 2012

2/2

### Instructions for Ranked Choice Voting

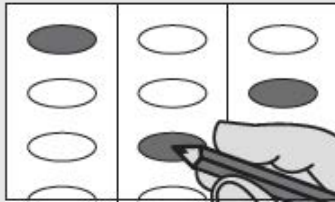
#### Making selections

Rank candidates in the order of your choice.

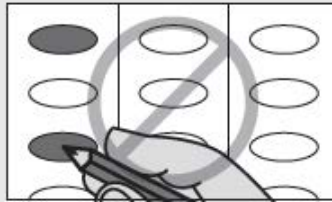
Mark **at least one candidate** for your vote to count.

#### Fill in the oval...

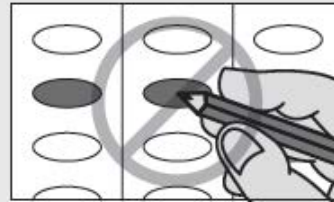
- In the 1st column for your first 1st choice.
- In the 2nd column for your 2nd choice.
- In the 3rd column for your 3rd choice.



Correct! All 3 choices must be different.



No more than one oval in a column.



Don't choose the same candidate more than once.

### 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"/> 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



ES&S COLUMN BALLOT WITH WRITE-INS – MINNEAPOLIS, MN (2022, PG. 1)

<b>Official Ballot</b> <b>City General Election Ballot</b> <b>City of Minneapolis</b> <b>November 2, 2021</b>			Judge _____ Judge _____
<b>Ranked Choice Voting Instructions to the Voters</b> <ul style="list-style-type: none"> <li>• Rank up to 3 different candidates for each office.</li> <li>• Vote from left to right in each office in order of your preference.</li> <li>• To vote, completely fill in the oval(s) next to your choice(s) like this: <input type="radio"/></li> </ul>			
<b>City Offices</b>			
<b>Mayor</b>			
<b>Rank your first, second and third choice candidates in the columns below. One to be elected.</b>			
<b>1</b>	<b>2</b>	<b>3</b>	
1st Choice Select One	2nd Choice, if any Must be DIFFERENT from your 1st choice. Select One	3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices. Select One	
<input type="radio"/> Bob "Again" Carney Jr Republican <input type="radio"/> Laverne Turner Republican <input type="radio"/> Troy Benjegerdes Farmer-Labor <input type="radio"/> Paul E. Johnson Equity in Motion <input type="radio"/> Doug Nelson Socialist Workers Party <input type="radio"/> Sheila Nezhad Democratic-Farmer-Labor <input type="radio"/> AJ Awed Democratic-Farmer-Labor <input type="radio"/> Nate "Honey Badger" Atkins Libertarian Party <input type="radio"/> Christopher W David Democratic-Farmer-Labor <input type="radio"/> Mike Winter Independence-Alliance <input type="radio"/> Jacob Frey Democratic-Farmer-Labor <input type="radio"/> Kevin "No Body" Ward Independent <input type="radio"/> Clint Conner Democratic-Farmer-Labor <input type="radio"/> Mark Globus Democratic-Farmer-Labor <input type="radio"/> Perry, Jerrell For The People <input type="radio"/> Marcus Harcus Grassroots-Legalize Cannabis <input type="radio"/> Kate Knuth Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	<input type="radio"/> Bob "Again" Carney Jr Republican <input type="radio"/> Laverne Turner Republican <input type="radio"/> Troy Benjegerdes Farmer-Labor <input type="radio"/> Paul E. Johnson Equity in Motion <input type="radio"/> Doug Nelson Socialist Workers Party <input type="radio"/> Sheila Nezhad Democratic-Farmer-Labor <input type="radio"/> AJ Awed Democratic-Farmer-Labor <input type="radio"/> Nate "Honey Badger" Atkins Libertarian Party <input type="radio"/> Christopher W David Democratic-Farmer-Labor <input type="radio"/> Mike Winter Independence-Alliance <input type="radio"/> Jacob Frey Democratic-Farmer-Labor <input type="radio"/> Kevin "No Body" Ward Independent <input type="radio"/> Clint Conner Democratic-Farmer-Labor <input type="radio"/> Mark Globus Democratic-Farmer-Labor <input type="radio"/> Perry, Jerrell For The People <input type="radio"/> Marcus Harcus Grassroots-Legalize Cannabis <input type="radio"/> Kate Knuth Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	<input type="radio"/> Bob "Again" Carney Jr Republican <input type="radio"/> Laverne Turner Republican <input type="radio"/> Troy Benjegerdes Farmer-Labor <input type="radio"/> Paul E. Johnson Equity in Motion <input type="radio"/> Doug Nelson Socialist Workers Party <input type="radio"/> Sheila Nezhad Democratic-Farmer-Labor <input type="radio"/> AJ Awed Democratic-Farmer-Labor <input type="radio"/> Nate "Honey Badger" Atkins Libertarian Party <input type="radio"/> Christopher W David Democratic-Farmer-Labor <input type="radio"/> Mike Winter Independence-Alliance <input type="radio"/> Jacob Frey Democratic-Farmer-Labor <input type="radio"/> Kevin "No Body" Ward Independent <input type="radio"/> Clint Conner Democratic-Farmer-Labor <input type="radio"/> Mark Globus Democratic-Farmer-Labor <input type="radio"/> Perry, Jerrell For The People <input type="radio"/> Marcus Harcus Grassroots-Legalize Cannabis <input type="radio"/> Kate Knuth Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	
<b>Council Member Ward Ten</b>			
<b>Rank your first, second and third choice candidates in the columns below. One to be elected.</b>			
<b>1</b>	<b>2</b>	<b>3</b>	
1st Choice Select One	2nd Choice, if any Must be DIFFERENT from your 1st choice. Select One	3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices. Select One	
<input type="radio"/> David Wheeler Democratic-Farmer-Labor <input type="radio"/> Chris Parsons Democratic-Farmer-Labor <input type="radio"/> Alicia Gibson Democratic-Farmer-Labor <input type="radio"/> Aisha Chughtai Democratic-Farmer-Labor <input type="radio"/> Ubah Nur Democratic-Farmer-Labor <input type="radio"/> Katie Jones Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	<input type="radio"/> David Wheeler Democratic-Farmer-Labor <input type="radio"/> Chris Parsons Democratic-Farmer-Labor <input type="radio"/> Alicia Gibson Democratic-Farmer-Labor <input type="radio"/> Aisha Chughtai Democratic-Farmer-Labor <input type="radio"/> Ubah Nur Democratic-Farmer-Labor <input type="radio"/> Katie Jones Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	<input type="radio"/> David Wheeler Democratic-Farmer-Labor <input type="radio"/> Chris Parsons Democratic-Farmer-Labor <input type="radio"/> Alicia Gibson Democratic-Farmer-Labor <input type="radio"/> Aisha Chughtai Democratic-Farmer-Labor <input type="radio"/> Ubah Nur Democratic-Farmer-Labor <input type="radio"/> Katie Jones Democratic-Farmer-Labor  <input type="radio"/> _____ write-in, if any	
<b>Board of Estimate and Taxation</b>			
<b>Rank your first, second and third choice candidates in the columns below. Two to be elected.</b>			
<b>1</b>	<b>2</b>	<b>3</b>	
1st Choice Select One	2nd Choice, if any Must be DIFFERENT from your 1st choice. Select One	3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices. Select One	
<input type="radio"/> Steve Brandt <input type="radio"/> Kevin Nikiforakis <input type="radio"/> Samantha "Sam" Pree-Stinson <input type="radio"/> Pine Salica  <input type="radio"/> _____ write-in, if any	<input type="radio"/> Steve Brandt <input type="radio"/> Kevin Nikiforakis <input type="radio"/> Samantha "Sam" Pree-Stinson <input type="radio"/> Pine Salica  <input type="radio"/> _____ write-in, if any	<input type="radio"/> Steve Brandt <input type="radio"/> Kevin Nikiforakis <input type="radio"/> Samantha "Sam" Pree-Stinson <input type="radio"/> Pine Salica  <input type="radio"/> _____ write-in, if any	
<b>MINNEAPOLIS W-10 P-11</b> <b>1855</b>			
<b>Vote front and back of ballot</b>			
Typ:01 Seq:0154 Spl:01			



ES&S COLUMN BALLOT WITH WRITE-INS – MINNEAPOLIS, MN (2022, PG. 2)

<b>ATTENTION VOTERS:</b> See other side of ballot for voting instructions		
<b>City Offices</b>		
<b>Park and Recreation Commissioner At Large</b>	<b>Rank your first, second and third choice candidates in the columns below. Three to be elected.</b>	
<b>1</b> 1st Choice Select One	<b>2</b> 2nd Choice, if any Must be DIFFERENT from your 1st choice. Select One	<b>3</b> 3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices. Select One
<input type="radio"/> Alicia D. Smith	<input type="radio"/> Alicia D. Smith	<input type="radio"/> Alicia D. Smith
<input type="radio"/> Katherine Kelly	<input type="radio"/> Katherine Kelly	<input type="radio"/> Katherine Kelly
<input type="radio"/> Charles Rucker	<input type="radio"/> Charles Rucker	<input type="radio"/> Charles Rucker
<input type="radio"/> Tom Olsen	<input type="radio"/> Tom Olsen	<input type="radio"/> Tom Olsen
<input type="radio"/> Londel French	<input type="radio"/> Londel French	<input type="radio"/> Londel French
<input type="radio"/> Mary McKelvey	<input type="radio"/> Mary McKelvey	<input type="radio"/> Mary McKelvey
<input type="radio"/> Meg Forney	<input type="radio"/> Meg Forney	<input type="radio"/> Meg Forney
<input type="radio"/> _____ write-in, if any	<input type="radio"/> _____ write-in, if any	<input type="radio"/> _____ write-in, if any
<b>Park and Recreation Commissioner District Four</b>	<b>Rank your first, second and third choice candidates in the columns below. One to be elected.</b>	
<b>1</b> 1st Choice Select One	<b>2</b> 2nd Choice, if any Must be DIFFERENT from your 1st choice. Select One	<b>3</b> 3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices. Select One
<input type="radio"/> Elizabeth Shaffer	<input type="radio"/> Elizabeth Shaffer	<input type="radio"/> Elizabeth Shaffer
<input type="radio"/> Jono Cowgill	<input type="radio"/> Jono Cowgill	<input type="radio"/> Jono Cowgill
<input type="radio"/> _____ write-in, if any	<input type="radio"/> _____ write-in, if any	<input type="radio"/> _____ write-in, if any
<b>City Questions</b>	<b>City Questions</b>	<b>City Questions</b>
<p style="font-size: small;">To vote for a question, fill in the oval next to the word "Yes" on that question. To vote against a question, fill in the oval next to the word "No" on that question.</p> <p style="text-align: center;"><b>City Question 1</b></p> <p><b>Government Structure: Executive Mayor – Legislative Council</b></p> <p>Shall the Minneapolis City Charter be amended to adopt a change in its form of government to an Executive Mayor-Legislative Council structure to shift certain powers to the Mayor, consolidating administrative authority over all operating departments under the Mayor, and eliminating the Executive Committee?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<p style="text-align: center;"><b>City Question 2</b></p> <p style="text-align: center;"><b>Department of Public Safety</b></p> <p>Shall the Minneapolis City Charter be amended to remove the Police Department and replace it with a Department of Public Safety that employs a comprehensive public health approach to the delivery of functions by the Department of Public Safety, with those specific functions to be determined by the Mayor and City Council by ordinance; which will not be subject to exclusive mayoral power over its establishment, maintenance, and command; and which could include licensed peace officers (police officers), if necessary, to fulfill its responsibilities for public safety, with the general nature of the amendments being briefly indicated in the explanatory note below, which is made a part of this ballot?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><b>Explanatory Note:</b></p> <p>This amendment would create a Department of Public Safety combining public safety functions through a comprehensive public health approach to be determined by the Mayor and Council. The department would be led by a Commissioner nominated by the Mayor and appointed by the Council. The Police Department, and its chief, would be removed from the City Charter. The Public Safety Department could include police officers, but the minimum funding requirement would be eliminated.</p>	<p style="text-align: center;"><b>City Question 3</b></p> <p style="text-align: center;"><b>Authorizing City Council To Enact Rent Control Ordinance</b></p> <p>Shall the Minneapolis City Charter be amended to authorize the City Council to regulate rents on private residential property in the City of Minneapolis, with the general nature of the amendments being indicated in the explanatory note below, which is made a part of this ballot?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><b>Explanatory Note:</b></p> <p>This amendment would:</p> <ol style="list-style-type: none"> <li>1. Authorize the City Council to regulate rents on private residential property in the City of Minneapolis by ordinance.</li> <li>2. Provide that an ordinance regulating rents on private residential property could be enacted in two different and independent ways:                             <ol style="list-style-type: none"> <li>a. The City Council may enact the ordinance.</li> <li>b. The City Council may refer the ordinance as a ballot question to be decided by the voters for approval at an election. If more than half of the votes cast on the ballot question are in favor of its adoption, the ordinance would take effect 30 days after the election, or at such other time as provided in the ordinance.</li> </ol> </li> </ol>
<b>MINNEAPOLIS W-10 P-11</b>		
<b>1855</b>		
<b>Vote front and back of ballot</b>		



# Touchscreen/Accessible Ballots

## BEST PRACTICES TOUCHSCREEN/ACCESSIBLE BALLOT – WITH RANKINGS

LOCAL  
**Mayor**

There are 7 candidates. Rank the candidates in the order of your choice. You may rank as many or as few as you wish.

You have ranked 4. You can rank 3 more.

↑ See more

2	Jin Chun Federalist	↑	↓
	Emma Jane Patterson Populist		
4	Abdul Shamoos Independent	↑	↓
1	Keisha Jackson Constitution	↑	↓
	Ashley Hildebrand-McDougall Whig		
3	Christiana Sabor Unity	↑	↓

↓ See more

Show in your ranked order

Back 2 of 3 Next

# BEST PRACTICES TOUCHSCREEN/ACCESSIBLE BALLOT – REVIEW SCREEN

Help Settings

## Review your ballot selections

↑ See More

State of Hamilton, Governor  
 **Frederick Sharp** / Peoples Change

Local, Mayor  
1 **Keisha Jackson** (Constitution)  
2 **Jin Chun** (Federalist) Change  
3 **Christiana Sabor** (Unity)  
4 **Abdul Shamoos** (Independent)  
**You may rank 3 more candidates.**

Local, City Council  
1 **Jenny Suarez** (Unity)  
2 **Azar Kirmani** (Independent) Change  
3 **Lee Johnson** (Whig)  
4 **Fred Applegate** (Populist)  
5 **Kerry Kilgore** (Constitution)

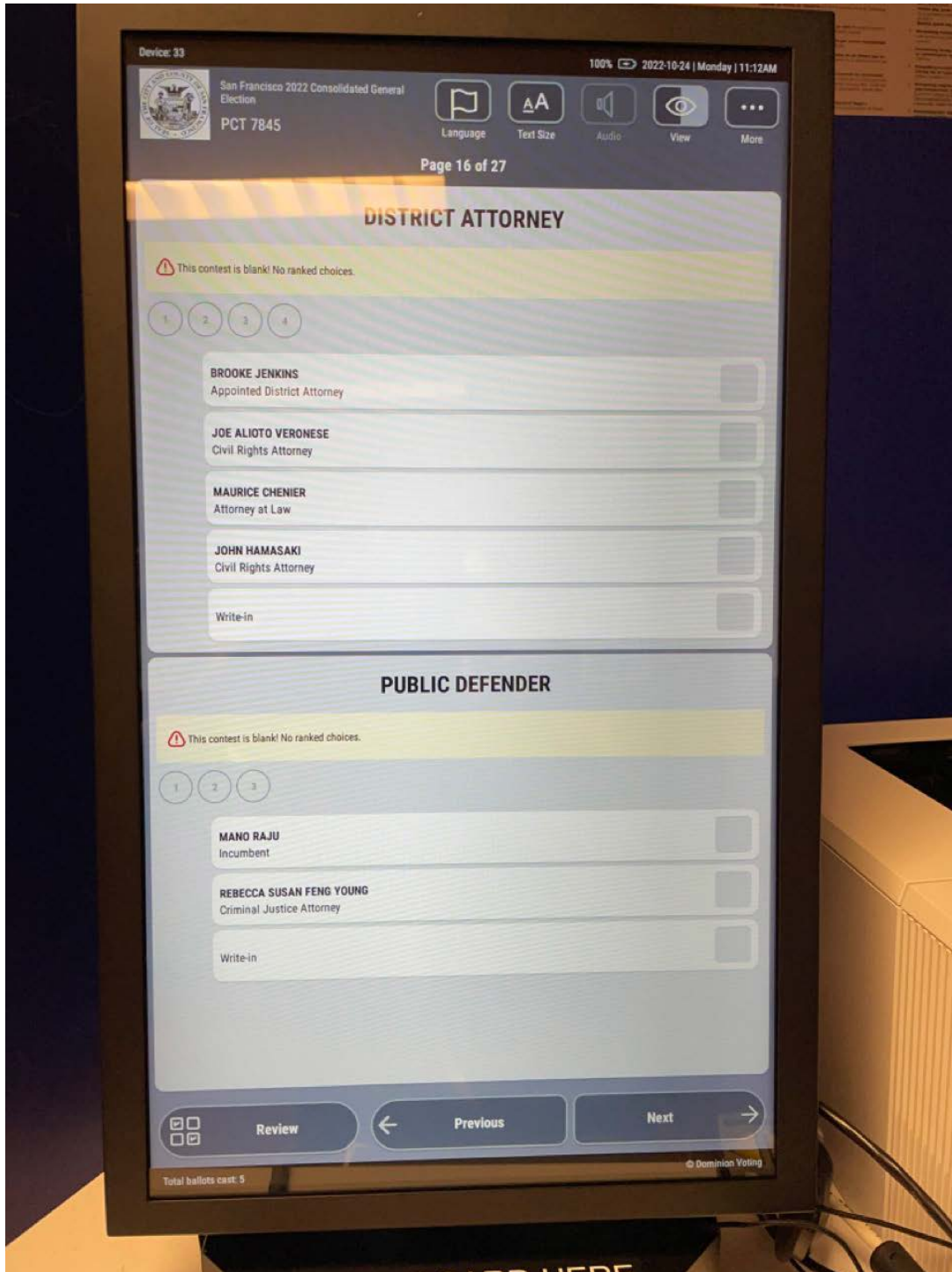
↓ See More

Next



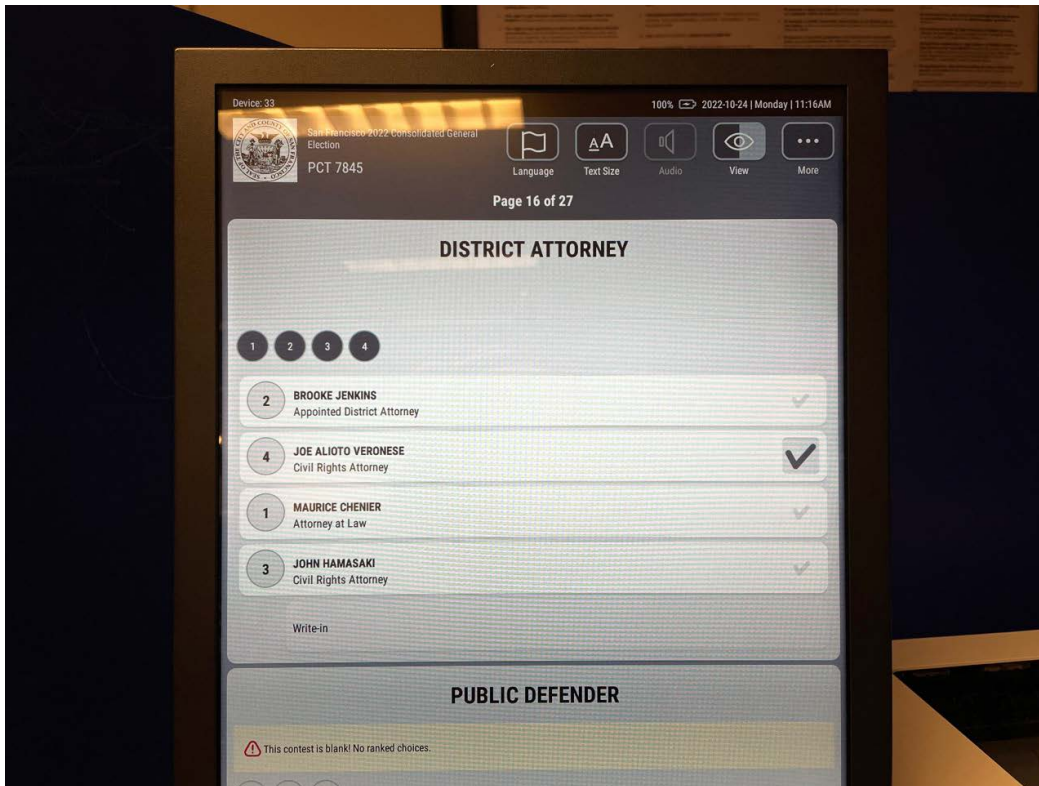
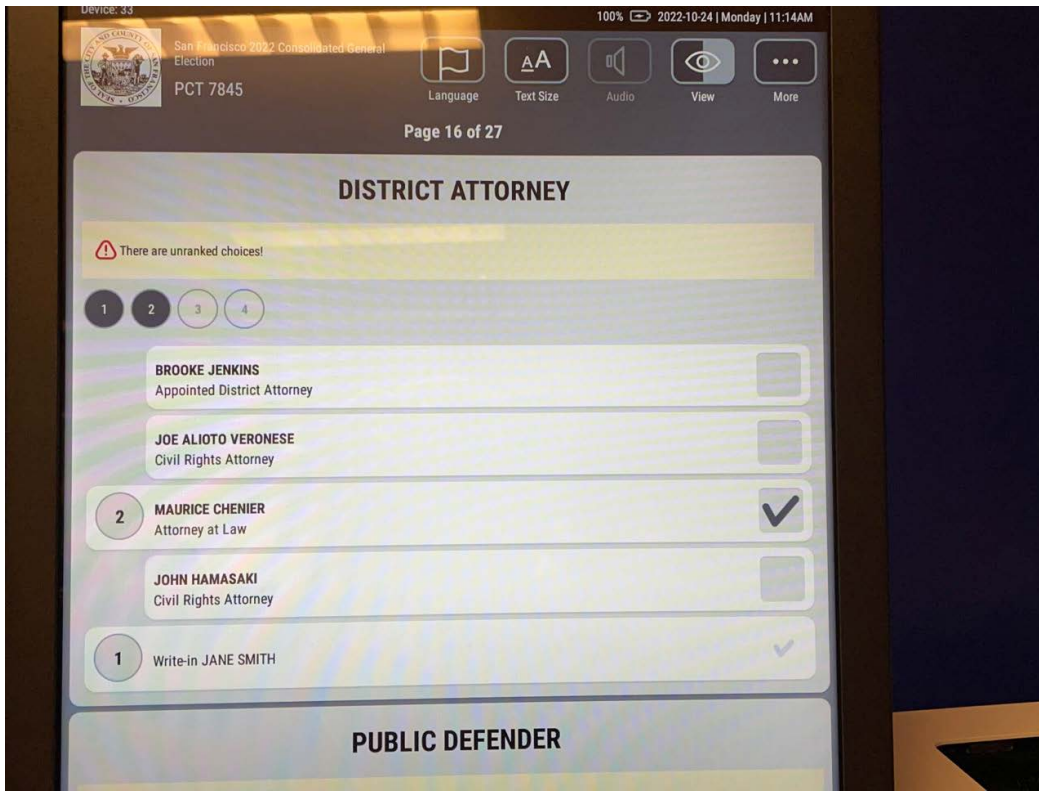
# DOMINION TOUCHSCREEN/ACCESSIBLE BALLOT

## IMAGECASTX BMD RCV INTERFACE (FULL SCREEN) – SAN FRANCISCO, CA (2022)



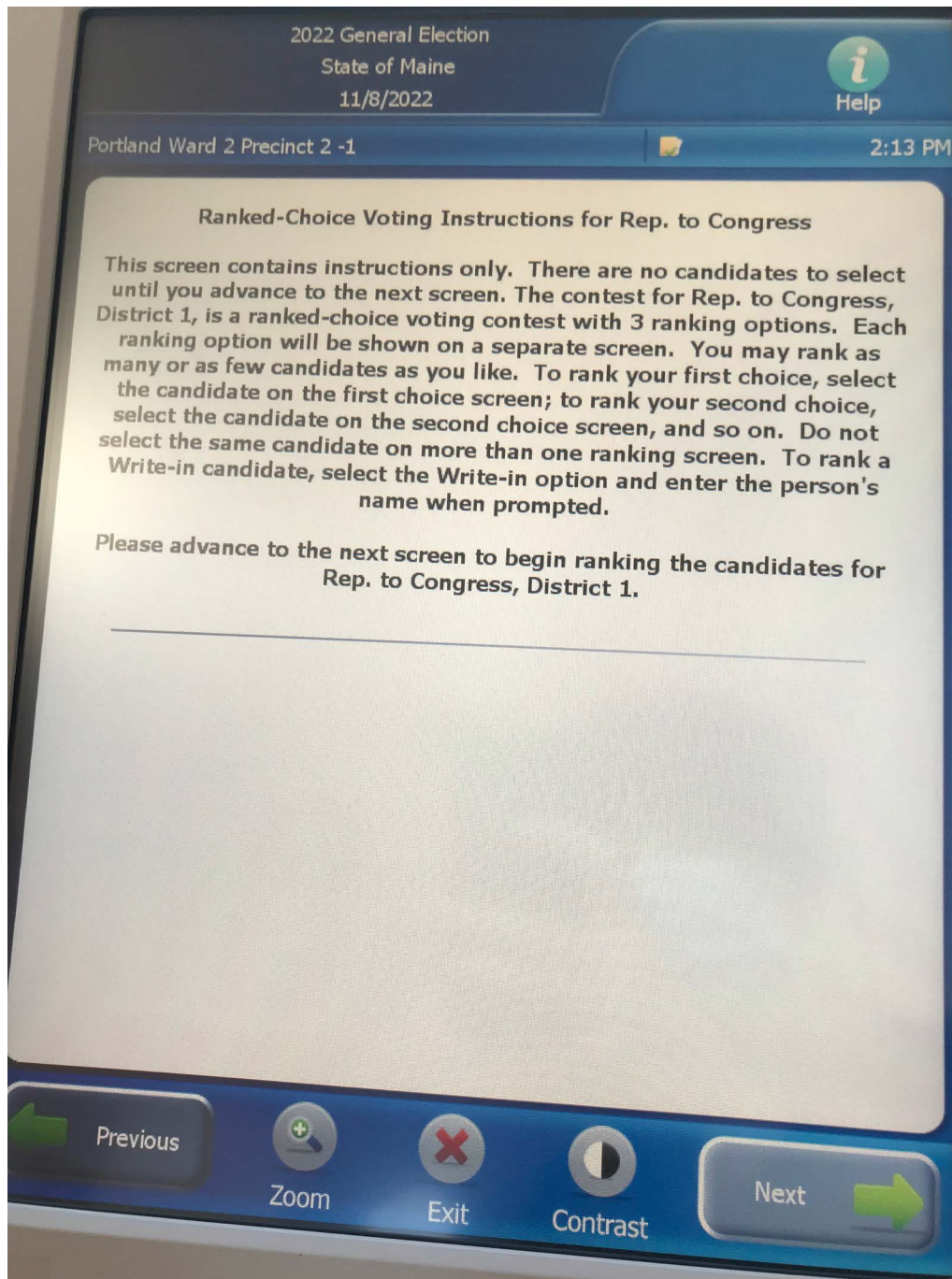
# DOMINION TOUCHSCREEN/ACCESSIBLE BALLOT

## IMAGECASTX BMD RCV INTERFACE – SAN FRANCISCO, CA (2022)

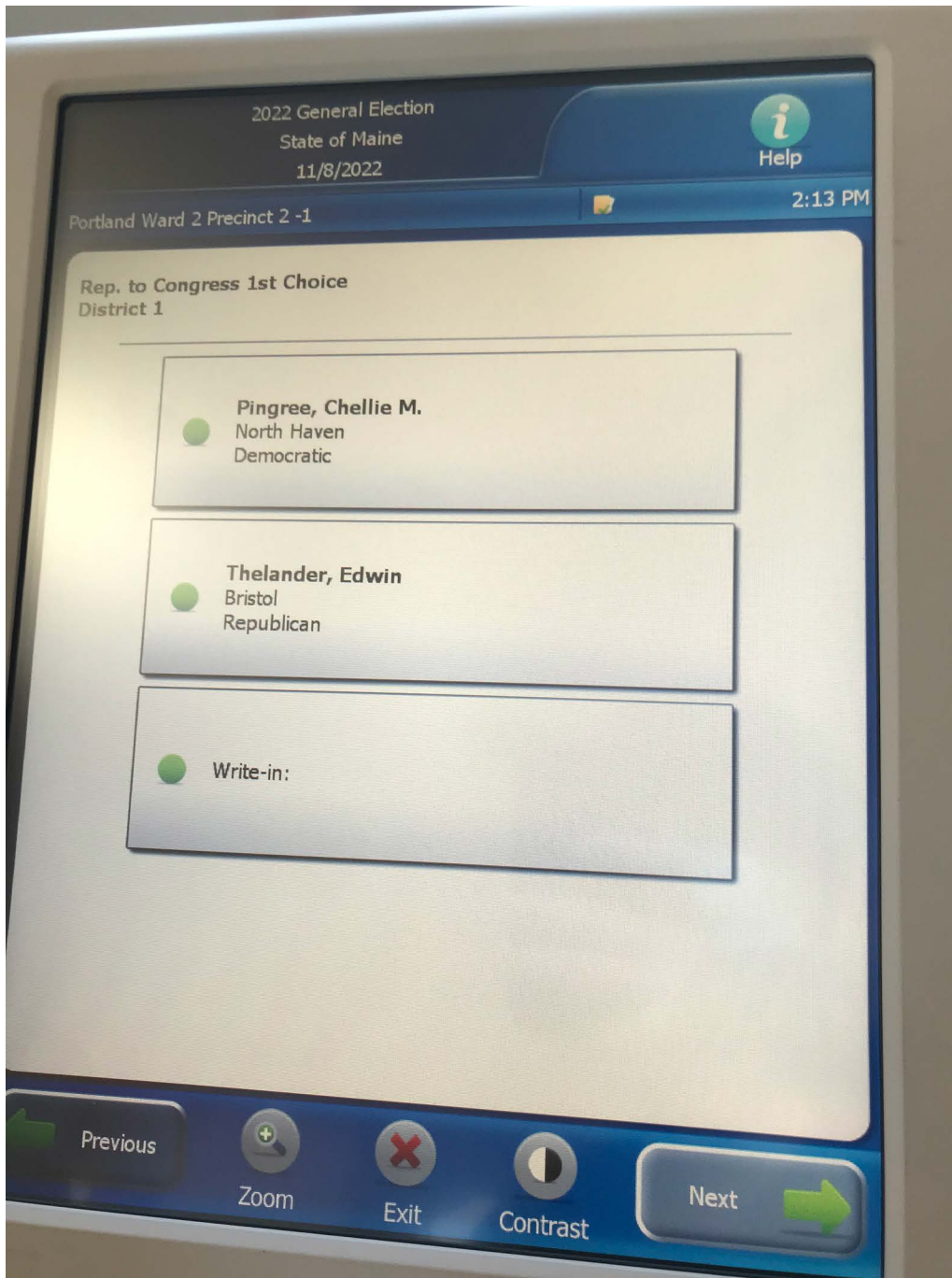


# ES&S TOUCHSCREEN/ACCESSIBLE BALLOT

## EXPRESSVOTE RCV INTERFACE INSTRUCTIONS – MAINE (2022)



ES&S TOUCHSCREEN/ACCESSIBLE BALLOT  
EXPRESSVOTE RCV INTERFACE – MAINE (2022)



# Best Practices Ballot Instructions

Choosing a ranked choice ballot design layout

## Two styles of ballot instructions

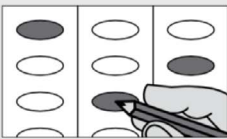
Both instruction styles had been used during the earlier studies. There were no differences in voter preferences. All liked having illustrations and clear instructions.

- Both filled the entire width of the ballot above the first ranked choice contest.
- Both work for either grid or 3-column ballot styles.

### Instruction style A

**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. And so on.



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

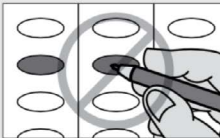

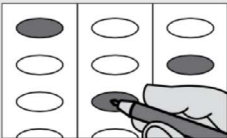
### Instruction style B

**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.



Fill in the oval completely.

No more than 1 oval in a column.

No more than 1 oval for a candidate.

**WE THANK YOU FOR  
YOUR ONGOING  
SUPPORT OF OUR  
ORGANIZATION.**



**RANKED CHOICE VOTING RESOURCE CENTER**

a division of Election Administration Resource Center

833-VOTERCV (868-3728)

[www.rcvresources.org](http://www.rcvresources.org)

[info@rcvresources.org](mailto:info@rcvresources.org)