Thank you for the opportunity to provide information to this Committee and others present regarding how to implement ranked choice voting and administer elections using this voting method.

My name is Connie Schmidt and my career has been in public service in Johnson County, Kansas – first as City Clerk for the City of Merriam, followed by my appointment as Election Commissioner in Johnson County. I retired in December 2004 and since then have owned and operated an election consulting business. My first experience with ranked choice voting was in 2013, under contract with the City of Minneapolis, Minnesota. Minneapolis conducted their first municipal election using this voting method in November 2009. In 2013, their goal was to improve the process and become the "gold standard" for conducting RCV elections. Since that time, I have always said that everything that I know about ranked choice voting, I learned in Minneapolis. Once again, this year I am continuing to consult with the City of Minneapolis for their November 2017 municipal ranked choice voting election.

Since 2016, it has been my privilege to work with other election colleagues as a consultant/member of the Ranked Choice Voting Resource Center. This group was formed with the purpose of working in the best interest of the voter and election officials first and foremost – obviously a perfect fit for a retired election commissioner like me!

Our team is comprised of former and retired election administrators with more than 100 years of experience, and all have experience administering RCV elections. At no cost, our team is available to assist in developing an implementation plan, including vote tabulation, voter education and more.

We have developed a content-rich website, www.rankedchoicevoting.org, to provide a single source for best practices and model plans for use by any election official looking for a roadmap for implementing this voting method. Since June, our team has launched a webinar series with topics such as The ABCs of Ranked Choice Voting, Designing RCV Ballots, Voting Systems and RCV, and Designing Voter Education and Election Results Presentation for RCV. All of these webinars are posted to the website and are available for viewing.

I want to use my time today to talk about three main areas of election administration:

- How to implement Ranked Choice Voting
- Lessons learned – City of Minneapolis
- Benefits for the State of Kansas

How to Implement Ranked Choice Voting

The first two handouts are an excellent resource for implementing ranked choice voting. The RCV Model Implementation Plan is a roadmap from start-to-finish. It is a living document that will be updated on an as needed basis. The first step involves the review of state and/or local election law. We recommend that the language be broadly written to be flexible enough to change with time. This plan is posted on our website with links to many examples throughout the country.

The next handout was updated in September by our project team. It provides details on the next important step for implementation – voting systems. From designing the ballot to tabulation of results, the voting system is mission critical in election administration. We recommend that the state begin with an initial assessment of voting systems in use by each county. The next question is whether each voting system can generate data of all cast vote records (CVR). Once we have this information, we can develop a plan for tabulating RCV results. It's important to note that four of the largest voting equipment vendors have either built-in RCV tabulation or the ability to generate CVR data. The last page of this handout provides a current status of RCV capable voting systems for your review.

Designing the ballot is one of the most important tasks in managing elections. The ballot must be easy to understand and be designed for maximum usability by the voter. Through a partnership with the Center for Civic Design, the Principles and Guidelines Report for Ranked Choice Voting Ballots and Other Materials was released early this year. Phase II of this report will be completed by June 2018. This report is available on our website and it provides a detailed look at all types of ballot design options. I have provided a few sample ballots in your handout material today. The first one is a sample ballot for the November 2017 Minneapolis election. It presents the candidates in a column format, providing for three rankings. The second example is a generic "Franklin County" ballot designed to provide an example of a grid style format, with up to 10 rankings.

Voter education and outreach is a key component of a successful RCV election. These efforts do not have to be costly and work best when intertwined with existing voter outreach initiatives. In fact, we have learned from other RCV jurisdictions that the most impactful and inexpensive voter education method is verbal and written instruction when the voters come to

vote. Again, the Model Implementation Plan contains a treasure chest of best practices — including sample brochures, flyers, videos, etc. I have provided a sample flyer on How to Complete a Ranked Choice Ballot, which was developed by the City of Minneapolis.

Lessons Learned – City of Minneapolis

Election administrators are well known for learning or "stealing" or adopting best practices from their peers across the country. Not wanting to reinvent the wheel, all of us look to each other for ideas and best practices. Since my hands-on experience with ranked choice voting has been with the City of Minneapolis, I wanted to share some of the things that we can learn from their experiences. Again, their first RCV election was in November 2009, followed by a hand count for results reporting.

Ranked choice voting was approved by voters in Minneapolis in 2006 to elect municipal offices. It was used for the first time in their 2009 municipal election. Based on those lessons learned and observation of an RCV election in the City of St. Paul, Minnesota in 2011, a series of process improvements were implemented for the 2013 election. Those included the use of a CVR data file which eliminated two lengthy steps in the hand count process from 2009 – the hand-count and data entry. This year, the process continues to be improved by allowing for batch/bulk elimination of candidates who cannot mathematically continue in future rounds.

In Minnesota, election law requires every effort be made to count the ballot when it is possible to determine voter intent. Since there was no guidance in State election law for errors unique to RCV, the city had to develop policy guidelines, including: Over voting; repeating a candidate in multiple rankings; and skipping a ranking but choosing a candidate at a lower ranking. I have attached a copy of the revised 2013 voter intent chart for Minneapolis.

Other lessons learned from Minneapolis are highlighted in the handout, "Significant Improvements for Ranked Choice Voting". A more detailed report of their November 2013 election can also be found on their website: http://vote.minneapolismn.gov

Hopefully all of this information will be helpful as you consider the use of ranked choice voting here in Kansas.

Benefits for the State of Kansas

So what are benefits and challenges for using ranked choice voting here in the State of Kansas?

One of the first benefits of ranked choice voting from an election administrator's viewpoint is the elimination of the primary election. Voters make only one trip to the polls! The expenses of managing a primary election are gone – and that includes opening polling places, recruiting

and training poll workers, ballot printing costs, advance voting in-person and by mail expenses, etc.

Another benefit of ranked choice voting is from a voter's perspective. If the voter's first choice candidate is eliminated, their ballot remains "active" and the voter's remaining choices can be counted, until their ballot is inactive (exhausted) or a candidate receives majority support of the votes cast. The result is that the winners have broader support.

As for campaigns, other jurisdictions using ranked choice voting have reported that it reduces negative campaigning. If a candidate is not the voter's first choice, then they definitely want to be the voter's second choice.

The challenges of ranked choice voting are being addressed by the Ranked Choice Voting Resource Center. The first challenge relates to voting equipment, and as I said earlier, the four largest equipment vendors are incorporating ranked choice voting needs in their tabulation software. Our Resource Center is currently developing a Universal RCV Tabulator to aggregate and tabulate CVR from multiple voting systems for RCV results. This RCV tabulator will be tested to EAC voting system standards by a federally certified testing lab and made available to jurisdictions as free, open-source software.

Historically in Johnson County, voter turnout in municipal primary elections averages less than 10%, often as low as 5-6%. That means that the top two candidates that move onto the general election ballot are determined by a very, very small number of the electorate. As an example, in this handout I have highlighted primary elections for three Mayor races in Johnson County.

Using the ranked choice voting method, the primary election would have been eliminated and all of these candidates would appear on the general election ballot. Operating under that assumption.......

- In the 2009 spring primary election there were two Mayor races with 4 candidates each in the City of Merriam and the City of Roeland Park. The voter turnout in this election was 9.48%. The third place candidate lost by a margin of 1 vote in Merriam and by 3 votes in Roeland Park. In a ranked choice voting election, all 4 candidates in both races would have appeared on the general election ballot. Since none of the candidates received the majority of votes, the candidate with the lowest number of votes would be eliminated and the second choice on those ballots would be redistributed to the remaining 3 candidates. Again, if no candidate received a majority vote, another round would eliminate the candidate with the least number of votes and the 2nd or 3rd choices on those ballots would be redistributed to the remaining 2 candidates, with the candidate receiving the majority of the votes declared the winner. Since the total votes

cast for the top 3 candidates in both of these races was close, the outcome of the election could have been different – using the ranked choice voting method.

- Again, in the 2015 spring primary election, the Mayor's race in the City of Shawnee had 4 candidates, each receiving 18-30% of the votes cast. The voter turnout in this primary election was just 5.43%. Since there was less than a 100 vote difference between the top two candidates, the outcome may have been different by redistributing the voters' 2nd and/or 3rd choice on the ballots until a winner was declared with a majority of votes.

These are just examples from Johnson County that show the benefits of using ranked choice voting, and eliminating the primary election.

In closing, this voting method eliminates the need for costly primary elections and ensures broad support in an election, rather than only a small portion of the electorate determining a winner. I speak for the other members of the Ranked Choice Voting Resource Center when I say that we would love to work with your committee and others as you consider adopting the use of ranked choice voting in the State of Kansas.

Connie Schmidt retired as Election Commissioner for Johnson County, Kansas on December 17, 2004. She served in that capacity since her appointment by Secretary of State Ron Thornburgh on September 14, 1995.

She worked in local government in Johnson County for a total of 31 years and previously served as City Clerk for the City of Merriam, Kansas. During her tenure as City Clerk, her office received two national awards - the 1991 Grand Prize, International Institute of Municipal Clerks Records Management Award and the 1991 William Olsten Award for Excellence in Records Management. In 1993 she was named the City Clerk/Finance Officer of the Year in the State of Kansas. In 1995 she was named Citizen of the Year for the City of Merriam, Kansas. In 1996 she received the prestigious Quill Award from the International Institute of Municipal Clerks.

During her tenure as Election Commissioner, her office introduced many new voter outreach and education programs. In 1996, the Johnson County Election Office was one of the first election agencies to launch a web site for voter information. Again, in 1996, Johnson County was the first county in Kansas to post election results on the web and provide voters the opportunity to log on to the Internet to view their sample ballot and find their voting location. In November 2000, Johnson County became the first county in the State to open satellite advance/early voting locations for 20 days prior to Election Day and also to provide an informational tool enabling voters to access their voter registration status via the Internet. In 1999 the office transitioned from a mainframe voter registration/election management system to internal Windows-based software, with integration to GIS software in 2002. Also in 2002 the Johnson County Election Office became one of the first offices nationwide to implement a countywide touch screen voting system for early voting in person and Election Day polling places. This system was upgraded to the latest model in another system implementation in late September 2004.

The Johnson County Kansas Election Office received numerous awards, including (1) 1997 IACREOT Money Savings Ideas Contest; (2) 1997 NACO Achievement Award for its civic education and public information program entitled "Promoting Voting – Student and Community Outreach"; (3) "Best of the Web" in the January 1998 issue of Government Technology magazine; (4) "Digital Government Award of Excellence" July 1998; (5) 1999 NACO Achievement Award for its bi-state public/private partnership program to recruit election workers, entitled "Making Voting Popular"; (6) Honorable Mention, Best Professional Practices, The Election Center, for development of a non-partisan, non-profit Celebration of Patriotism Foundation; (7) 2001 NACO Achievement Award, Civic Education and Public Information, for implementation of Celebration of Patriotism Foundation; (8) 2002 NACIO Superior Award for her testimony before the House Administration Committee which focused on national election reform; (9) 2002 NACRC Best Practices Award for the "Celebrate the Vote" program (10) 2004 NACIO Meritorious Award for election office informational brochures, 2004 NACIO Meritorious Award for "White Paper – Voting Systems in Johnson County, Kansas", 2004 NACIO Meritorious Award for "Implementing a Voting System from a Local Election Administrator's Viewpoint" publication, and 2004 NACIO Excellence Award for "2002-2003 Progress Report" annual report.

At the national level, she served as the chair of the Professional Education Program Certification Board for The Election Center, and as a member of the NASED Voting Systems Standards Board. At the state level, she served as a member of the State of Kansas HAVA Implementation Committee. In December 2004 she received the National Association of Secretaries of State (NASS) Medallion Award for outstanding service to American democracy. In August 2005 she received a Lifetime Membership Award from The Election Center, Inc., and in August 2007 she received the Election Hall of Fame Award from The Election Center, Inc.

Since 2005 she has owned and managed an election consulting business and has provided services to local, state and federal government, including the U.S. Election Assistance Commission (EAC). She served as the co-project manager for the EAC's Election Management Guidelines and Quick Start Guides, and also served as the principal consultant for the EAC's Best Practices in Poll Worker Recruitment, Training and Retention. She has served as a consultant for The Election Center, Inc., including management of their State Registered Election Official (REO) training program, and has served as an instructor for the State REO training program and as an instructor for the Center's national CERA (Certified Election and Registration Administrator) program. She recently served part time as Sr. Writer/Editor for the U.S. Election Assistance Commission from October 2013 – May 2016. She currently serves as a consultant for the Ranked Choice Voting Resource Center and also for the City of Minneapolis, Minnesota for their 2013 and 2017 Ranked Choice Voting municipal elections.

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HOW TO IMPLEMENT RANKED CHOICE VOTING

Ranked
Choice
Voting
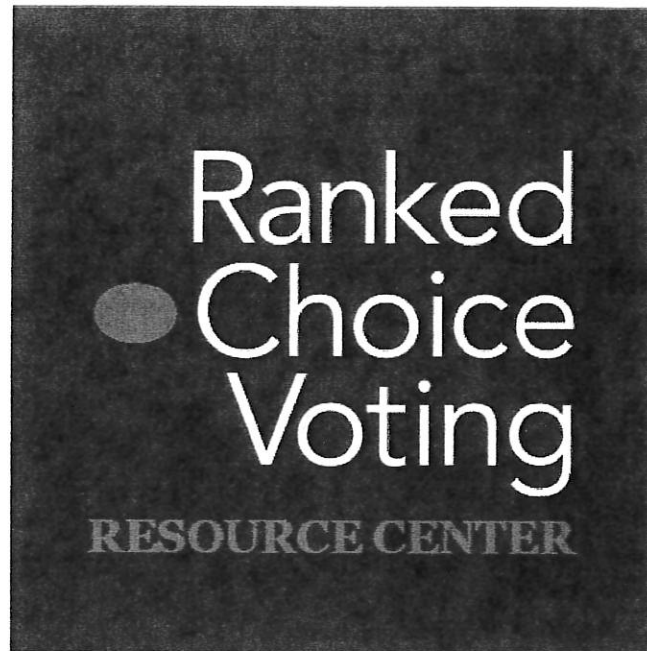
RESOURCE CENTER

RANKED CHOICE VOTING
MODEL IMPLEMENTATION PLAN

SEPTEMBER 2017
VERSION 1.1

www.rankedchoicevoting.org
info@rankedchoicevoting.org

About

The Project Team of the Ranked Choice Voting Resource Center is not advocacy focused. Rather, we aim to provide resources that allow jurisdictions to implement ranked choice voting (RCV) effectively and efficiently.

With extensive elections experience and working together overseeing statewide, municipal, and district RCV elections, our project team has focused on expanding the resources and information available regarding the administration of and education about this voting method. We have developed the Ranked Choice Voting Resource Center (www.rankedchoicevoting.org) to provide:

- a collection of RCV resources for voters, election administrators, policy makers, and candidates;
- first-hand experiences of jurisdictions that have used RCV, as well as RCV best practices; and
- educational, outreach, definitions, tabulation, procedural, and general RCV information materials.

At no cost to jurisdictions, our team is available to assist in developing jurisdiction specific implementation plans, processes for tabulating results with the current voting equipment, voter education, and more.

Purpose

This model implementation plan provides a broad map of the start-to-finish process of ranked choice voting – from the introduction of legislation to approve this voting method to the certification of election results. Designed as a living document, this plan will develop as the use of RCV grows, technology expands, and more resources and information are gathered. The Ranked Choice Voting Resource Center Consulting Team will continually update the content. For this reason, hyperlinks to the Ranked Choice Voting Resource Center website and other applicable web resources are provided throughout the document.

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OVERVIEW: RANKED CHOICE VOTING – AN ELECTION PROCESS LIKE ANY OTHER

Implementation of ranked choice voting (RCV) for a jurisdiction follows much of the protocol and procedures used in any election.

Consider that a defined schedule exists for any election – deadlines for candidates to file, regulations about ballot preparation, requirements for public notice of voting equipment testing or of the election, a set time for voting to take place, to name a few. These scheduled events do not change when ranked choice voting is adopted as a voting method. A model implementation plan for ranked choice voting incorporates all the elements of any successful election in addition to giving the voter an understanding of how to rank candidates on a ballot, how tabulation is calculated for final results, and confidence in the outcome of the election.

The objective of this Model RCV Implementation Plan is to identify procedures that may need to be added as part of preparations for an election or processes that may need to be refined to incorporate RCV. Since the Ranked Choice Voting Resource Center Team consists of former election administrators, the Team can objectively recognize the additional steps that may be needed to implement ranked choice voting. Our goal with the guide is to minimize extra work and to offer resources and first-hand experience so new RCV jurisdictions do not have to "reinvent the wheel."

Because there are many forms of RCV and requirements for RCV and general election law vary from one jurisdiction to another, an implementation plan should be tailored to a jurisdiction. It should complement current election procedures and be simple yet thorough. Key considerations to customize RCV implementation for a jurisdiction include:

- Voting systems and equipment varies throughout the country and within a state. Consideration must be given to a jurisdiction's voting system and its RCV capability, including the voting equipment (hardware), firmware, and software.
- Policies, rules, laws, and best practices should be defined to meet a jurisdiction's needs. How existing election law and RCV procedures correlate or need to be reconciled from the beginning of the election cycle and concluding with the certification of the election will provides for a successful implementation and lessens the chance for obstacles in the process.

Success and acceptance starts with the voter, the most important part of any election. There are many ways to educate a voter on RCV processes and many layers of possible contact or interaction that can occur. Providing RCV sample ballots and delivering helpful presentations or public service messages are optimum, but often only reach the most civically engaged. The majority of voters can best be helped with oral and written instructions when they present themselves to vote at an early voting site or Election Day polling place. Those using absentee-by-mail voting or vote-by-mail balloting should receive clear and sufficient instructions. Election officials should be trained and have a working knowledge of all processes of RCV. Government bodies should adopt the form of RCV that represents the acceptance of their constituency and addresses the jurisdiction's need. This establishes a solid foundation for RCV, and in some jurisdictions may be best achieved through a sunset pilot authorization to introduce the voting method to the electorate and provide findings to build on for future elections.

Due to the many variations of jurisdictions, election laws, and even forms of RCV, there actually is no single Model for a successful RCV implementation. Rather, this Model Plan aims to provide options for a jurisdiction to tailor and customize to meet their needs recognizing that all jurisdictions should have the following components in any RCV implementation plan, and in many ways any election plan:
- a sufficient budget
- clear communication that ensures understanding
- innovative education opportunities for the voter and candidates (i.e., symposiums, voter guides, civic club presentations, social media)
- an RCV helpdesk,
- use of best practices as found in the Usability Study and from established RCV jurisdictions
- methods to meet accessibility needs
- recognition that voters have an easier time understanding how to mark choice(s); however, understanding the threshold for victory and process for the results is harder and special attention to this matter is needed to ensure acceptance that a fair election occurred and the votes were accurately counted to determine the winning candidate(s).
- Rules and guidelines for tallying, recounts, and audits
- Election challenge/protest guidelines and rules.

These implemented practices and resources are provided in this report and through the Ranked Choice Voting Resource Center website (www.rankedchoicevoting.org) and are the foundation for this Model RCV Implementation Plan.

HISTORY OF RCV

(http://www.rankedchoicevoting.org/history_rcv)

Ranked choice voting was invented in the 1850s in Europe, as a proportional representation system to be used in multi-winner elections. In the 1870s, it was adapted to the single-winner (or "instant runoff") form by William Ware, an MIT professor.

RCV was first used in elections in the early 1900s, in state-level elections in Australia. The single-winner form was adopted for Australia's House of Representatives elections in 1918, and the multi-winner form was adopted for Australia's Senate in 1948. Malta and the Republic of Ireland adopted the multi-winner version for their Parliamentary elections in 1921; Ireland also uses the single-winner form when electing a single seat (such as President).

Around the same time RCV was adopted in Australia, cities in the United States began adopting RCV in earnest. Ashtabula, Ohio became the first place in the United States to use RCV in 1915, using it to elect their city council. RCV spread through the rest of Ohio (to Cleveland, Cincinnati, Toledo, and Hamilton), and across the country to places like Boulder, Colorado; Kalamazoo, Michigan; Sacramento, California; West Hartford, Connecticut. New York City adopted the multi-winner form for their City Council and School Board elections in 1936, spurring another 11 cities to quickly adopt RCV.

This spate of adoption brought the number of RCV cities to two dozen cities spread across 11 states in the early 1940s. Even as adoption of RCV grew, however, repeal efforts succeeded in Cleveland, Hamilton, Michigan, and California. In the late 1940s and throughout the 50s, repeal efforts continued apace. Politicians displaced by RCV, lack of organization amongst groups benefitted by RCV, and a political climate that turned against the parties elected through the proportional representation of RCV (Communists in New York City, for example) led to the repeal of RCV in 23 of the 24 cities where it was used in the U.S. By 1962 Cambridge was the only city left that retained the RCV system it adopted, a form of multi-winner RCV used to elect their nine-member city council.

(It is worth keeping in mind that these adoptions, and subsequent repeals were primarily of the multi-winner, proportional system of RCV, not the single-winner, instant runoff version.)

Even after the American repeal efforts, international uses of RCV continued in places like Australia and Malta. New Zealand, Scotland, and Northern Ireland have all adopted RCV in either the multi-winner or both the multi- and single-winner form since.

RCV has seen a resurgence in American cities in the last two decades as places like Minneapolis, Minnesota; San Francisco, California; and Takoma Park, Maryland, have adopted both single-winner and multi-winner forms of RCV. RCV is now used in eleven cities (http://www.rankedchoicevoting.org/where_used) in the United States and is awaiting implementation in four more. It's used in five states for their military and overseas voters, and statewide adoption in Maine passed by referendum in November 2016.

RCV TOOL: Ranked Choice Voting Resource Center Webinar: History of RCV in the US
(http://bit.ly/RCVHistoryWebinar) and supplemental Q&A document: History of RCV in the US Q&A (http://bit.ly/RCVHistoryWebinar_QA)

TYPES OF ELECTIONS & METHODS OF RCV

Types of Elections

Throughout our nation's traditional electoral system, officials are elected through nonpartisan and partisan elections by one of the following methods:

- Plurality, where voters cast their vote and the candidate with the most votes wins; a primary where two candidates advance to a final election;
- A first primary with the possibility of a second primary if no candidate receives majority support in the first primary, and then an election;
- Or an election and runoff.

Within any of these methods, when more than two candidates run, it is not unusual for one candidate to win or advance without a majority. When this happens, many states and localities hold a second election between the top two vote-getters. This second election is commonly referred to as a "runoff election." Runoff elections have a long history in the United States and are utilized at the city/county level, state legislative level, and for federal level contests. Some states use the primary system in federal and state legislative general elections, while others have a top two finisher system where the top two finishers from the first round face off in the November election.

Methods of RCV

RCV has become a proven voting method in the United States and has emerged as a solution to:

- **Ensure broad support** in an election rather than relying simply on plurality in which only a small portion of the electorate determines a winner.

- **Combine a second primary or runoff election** into a single election.

- **Achieve fair representation** when voting to fill multiple seats for a governing body.

Single-Winner vs. Multi-Winner RCV

(http://bit.ly/Single-RCV_VS_Multi-RCV)

Depending on the election, there are two types of ranked choice voting (RCV): single-winner and multi-winner. In an election for an executive office – such as mayor, governor or president – the single-winner version is often referred to as instant runoff voting (IRV).

If three or more candidates were running for mayor, voters could rank the candidates in order of preference (1st, 2nd, 3rd, etc.). Ballots are initially counted by tallying all first choice votes. If one candidate gets a majority of the first choice votes, that candidate is elected.

If no candidate has a majority after the first count, the candidate with the lowest number of votes is eliminated. The voters who had that candidate as their first choice will then have their vote count for the candidate they marked as their second choice. Elimination of last-place finishers and counting next choices on those ballots continues until one candidate gets a majority of votes in that round and is elected.

Ranking candidates eliminates the "spoiler effect" where a third candidate appears to have drawn votes away from a candidate who is preferred by most voters and causes that candidate to lose in a closely contested race. It can also eliminate the need for certain primaries or runoffs.

The other RCV version is used when there are multiple winners in a ranked choice election. Multi-winner RCV is the preferred option for electing a legislative body – such as a city council, state legislature or the U.S. House of Representatives.

Today, most legislative bodies in America are chosen in single-winner elections. When everyone in a legislature is elected from single-member, "winner-take-all" districts, only the majority (or plurality) of voters who supported a winning candidate can actually feel represented.

Multi-winner ranked choice voting allows more views to be represented in a legislative body and enables more voters to elect someone who shares their viewpoint. Instead of five representatives elected in each of five single-member districts, all five might be chosen from a larger, multi-member district.

But unlike traditional multi-member elections, where the majority voters often dominate all the seats, ranked choice voting allows a diversity of winners, assuring both majority rule and fair minority representation.

In Cambridge, Massachusetts, all nine city council members are chosen in a citywide at-large RCV election. If using multi-winner RCV to elect a state's U.S. House delegation, regional districts of three, four or five representatives might make sense if a state has six or more House members.

In traditional multi-member elections, each voter voted for as many candidates as there were seats to be filled. But such "winner-take-all" elections violate fair representation principles and legal requirements of the federal Voting Rights Act. A majority of like-minded voters could elect all the members to an elected body or within a district, leaving any voting minority entirely unrepresented.

Ranked choice voting, on the other hand, assures that any substantial like-minded group can win representation roughly in proportion to its share of the vote in the represented region. A majority

will still elect a majority of the representatives but not all of them. Minorities will be able to elect their fair share of representatives.

This is accomplished by what's called the "threshold of election" – the percentage of votes required for a candidate to be elected. The threshold is determined by how many members are being chosen. If three seats are being filled, the threshold of election is 25 percent plus one vote (25% + 1 vote x 3 members = 75% + 3 votes). It's the smallest number of votes that three candidates can get but four candidates cannot.

In a four-member election, the threshold would be 20 percent plus one (20% + 1 vote x 4 members = 80% + 4 votes). It's the smallest number that four candidates can get but five cannot. In a nine-member election, such as in Cambridge, the threshold is 10 percent plus one (10% + 1 vote x 9 members = 90% + 9 votes). It's what nine candidates can get but 10 cannot.

Being elected with 10 percent of the vote may not seem like "majority rule." But if there were one majority winner from each of nine single districts, each representative would have been elected by a very small percentage of the total vote. Say each district has 1000 voters, and each winner gets 51%; the winners would each have less than six percent of the citywide vote. (1000 votes x 51% = 510 votes / 9000 citywide votes = 5.7%.)

Further, the voters of each district would either be winners or losers; represented or, at least feeling, unrepresented. And whether you were destined to be a winner or loser would largely depend on where you lived and where the district lines were drawn.

With multi-winner RCV, voters can rank their preferred candidates and at least some of their preferences are likely to be elected. If your favorite candidate receives the least support that candidate is "eliminated," but your ballot is then counted for your next choice. Every voter has a fair shot of their vote helping to elect someone until all their preferences are either elected or eliminated.

In Cambridge, if you belong to an ethnic, racial, or other politically cohesive group representing 10 percent of the electorate, chances are good you will help elect at least one city council member who shares your views.

And if your favorite candidate exceeds the threshold, any "extra" votes are counted for the next choices on their ballots, in proportion to the size of the candidate's "surplus." Your ballot continues to support your top choices until all your preferences are elected or eliminated.

RCV TOOL: <u>Minnesota Public Radio Explains How Ranked Choice Voting Works</u>
Video (http://bit.ly/MPR_IRV_Video)

RCV TOOL: <u>Ranked Choice Voting Explained In The Animal Kingdom</u>
Video (<u>http://bit.ly/AnimalKingdomRCV</u>)

WHY JURISDICTIONS ADOPT

(http://www.rankedchoicevoting.org/adopt)

Jurisdictions adopting RCV do so for a number of reasons, from saving money to increasing civility in campaigns.

Benefits of RCV: Overview

- Ensures that a voter's preference continues to count for their next choice if their earlier choice is eliminated without having to return to the polls to vote again.
- A winning candidate achieves a majority or threshold of votes in the initial tabulation or through subsequent rounds of counting leading to broader support.
- Eliminates the "spoiler effect," where a third candidate appears to have drawn votes away from a candidate who is preferred by most voters and that candidate to lose in a closely contested race.
- Ranked choice voting allows overseas and military voters to fully participate in the electoral process.
- Candidates may conduct a more civil campaign, encouraging them to debate the issues and appeal to a broader spectrum of voters. This generates inclusive leadership because the candidates must appeal to voters who might initially vote for someone else, but may select that candidate as another ranking. Candidates can benefit from cooperation rather than division, especially in multi-winner contests.
- The cost of campaigning is reduced because candidates only have to campaign for one election.
- Taxpayers' dollars are saved by eliminating the costs of an additional election.

Further Explanation of Why Jurisdictions Adopt

Eliminate Unnecessary Primary and Runoff Elections

In some jurisdictions without ranked choice voting, if no candidate has a majority of the votes after a primary or election is held, then a second election takes place in which only the two candidates with the most support in the first election run. Those candidates must campaign again, often in a very negative head-to-head race, and voters must return to the polls to vote again. Whether this runoff election occurs before, as in a primary, or after Election Day, turnout often plummets in the second round.

With RCV, a jurisdiction can get the benefit of two rounds of voting in a single, more representative, higher turnout election. That is why RCV is often called "instant runoff voting." In this context, RCV can save the jurisdiction a lot of money – the entire cost of a second election – while helping promote majority rule and civil campaigning. This has been the motivation for the adoption of RCV in places like San Francisco (replacing runoffs) and Minneapolis (replacing primaries).

Avoid Vote-Splitting and Weak Plurality Results

The "spoiler effect" has long been a source of irritation in close political contests, where a third candidate appears to have drawn first choice votes away from one candidate in a closely contested race. RCV allows these voters' full range of preferences to be reflected in the final outcome.

Also, in races with numerous candidates, it is common for a winning candidate to receive significantly less than 50% of the vote. In such contests, the leading candidate may receive a weak plurality of the vote. Examples from San Francisco Board of Supervisors elections demonstrate how RCV yields majority or, at least, strong plurality winners in such elections.

Select San Francisco Board of Supervisors Elections, 2006–2012					
Year	Number of Candidat	District	Winner's 1st Choice % of Va Ballots	Winner's Final % of A Valid Ballots	Winner's % of Final Round Ballots
2006	6	District 4	26.2%	42.3%	52.5%
2008	8	District 11	28.2%	41.4%	52.9%
2012	8	District 5	28.0%	42.5%	56.2%
2012	9	District 7	29.3%	39.8%	50.3%

Similarly, in the 2013 Mayoral contest in Minneapolis, with 35 candidates, Betsy Hodges received 36% of the 1st choice votes followed by 61% of the vote in the final round of tabulation.

Recent Gubernatorial elections in Maine, where strong independent candidates led to the election of governors without majority support (in one case less than 40%), contributed to Maine voters' 2016 adoption of RCV for its statewide and General Assembly elections.

Military and Overseas Voters

Jurisdictions with runoff elections must administer the sending and receiving of ballots multiple times: once for the first election and then again for the second. International mail takes time, so the deployed military and overseas voters of these jurisdictions may not have time to receive, complete, and return a runoff ballot before the day of the election. This time crunch is why federal law requires at least 45 days between rounds of voting in federal elections. Still, many state and local runoff elections occur as little as one week after the first round, effectively disenfranchising overseas and military voters.

With RCV ballots, a military or overseas voter can vote in the first round and then rank their back-up candidates. When a runoff occurs, the ranked ballot is counted for whichever candidate in the runoff the overseas voter ranked highest. As of 2016, five states use RCV ballots to include overseas and military voters in runoff elections: Alabama, Arkansas, Louisiana, Mississippi, and South Carolina.

Illinois has created the option for local jurisdictions to use this solution as well, and Springfield, IL, has already adopted it pursuant to that option.

> *"We consider it an unqualified success. We've heard nothing but good things from voters about it. In the past, UOCAVA voters had a very difficult time participating in runoffs due to the two-week turnaround time. In the June 2012 primary, 92.5% of UOCACVA primary voters also participated in the runoff [with ranked ballots]. That is exceptional, and doesn't take into account those voters who may not have had a runoff. The real participation rate could be closer to 100%."*
>
> Chris Whitmire, Director of Public Information of the
> South Carolina State Election Commission on May 8, 2013

Increased Civility in Campaigns

In non-ranked choice voting elections, candidates often turn to "mud-slinging" by attacking an opponent's character instead of sharing their positive vision with voters. With RCV, candidates do best when they reach out positively to as many voters as possible, including those supporting their opponents. A comprehensive Rutgers University poll (http://www.fairvote.org/research_rcvcampaigncivility) of voters in 7 cities with RCV found that voters report friendlier campaigns and that RCV had majority support in all the cities using it.

Promoting Fair Representation

All states and all congressional elections currently use winner-take-all rules that often elevate district lines over voters. Legislatures elected by winner-take-all are characterized by distortions in partisan representation, entrenchment of incumbents in safe seats, regional polarization, and low representation of women and racial and ethnic minorities. When combined with multi-winner districts electing at least three members, RCV helps to make elections fairer and more reflective in every district. This ends the cycle of gerrymandering, and creates competitive elections in which every vote really counts.

Cambridge, MA, has, since 1941, elected its nine member Council and six member School Committee using Proportional Representation (PR). As Cambridge's voter information brochure notes, "Under PR, any group that numbers more than one-tenth of the voters may elect at least one member of the City Council." Its ethnically diverse and geographically mixed population make this form of Ranked Choice Voting particularly attractive to the City of Cambridge.

ADOPTION OF RCV & LEGISLATION

(http://www.rankedchoicevoting.org/statutes)

Ranked choice voting elections start with an authorizing statute. Depending upon the jurisdiction, this may be done by a bill in the state's legislature, by ballot initiative, by charter amendment, or by resolution. When developing the language ranked choice voting legislation, initiatives, amendments, or resolutions, it is recommended that the language be broadly written to be flexible enough to change with the times. For example, having terminology in adopted language that is specific to a particular type of voting equipment or a set number of rankings would limit the ability for elections to be administered as the voting equipment evolves.

Ballot Initiatives

Ballot initiatives occur when a question is added to a ballot by petition, which was signed by a requisite number of registered voters. Not all jurisdictions allow for ballot initiatives; however, in 2016, ballot initiatives regarding ranked choice voting passed in the State of Maine and Benton County, Oregon. Below are links about these two ballot initiatives.

IN PRACTICE: State of Maine Question 5
- Petition (http://bit.ly/Maine_RCV_petition)
- Maine Citizen's Guide to the Referendum Election 2016 (http://bit.ly/Maine_citizensguide_2016) – *Question 5 description begins on page 48*
- Statute (http://bit.ly/Maine_Statute_RCV)

IN PRACTICE: Benton County, OR Measure 2-100
- Ballot Measure (http://bit.ly/BentonCoMeasure)
- Voter Pamphlet November 2016 (http://bit.ly/BentonCoVoterPamphlet) – *ballot measure description begins on page 16*

Charter Amendments

While some charter amendments may occur by initiative, governments may also change a charter by legislative action, referendum, or charter commission depending upon the jurisdiction. While some municipal or county governments must have state-level approval for changes to their governing

documents, others do not have this requirement. The links below are examples of charter amendments to implement ranked choice voting:

IN PRACTICE: Hendersonville, NC 2009 Pilot Resolution
(http://bit.ly/Hendersonville_2009_Resolution)

IN PRACTICE: Memphis Charter Amendment
(http://bit.ly/MemphisTN_Charter_Sec7)

IN PRACTICE: Portland, ME Charter
(http://bit.ly/Portland_charter)

IN PRACTICE: San Francisco, CA Ballot Proposition A
- Ballot Proposition (http://bit.ly/SFBallotProposition)
- Voter Information Pamphlet and Sample Ballot 2002
  (http://bit.ly/SF_voter_info_pamphlet_2002) – *ballot proposition description begins on page 37*

IN PRACTICE: Santa Fe, NM Charter Amendment Resolution
(http://bit.ly/SantaFe_resolution)

IN PRACTICE: Sarasota Charter Amendment
(http://bit.ly/SarasotaFL_Charter)

IN PRACTICE: Springfield, IL Charter Referendum
(http://bit.ly/SpringfieldIL_charter_referendum)

IN PRACTICE: Takoma Park, MD Ballot Question and Charter Resolution
(http://bit.ly/TakomaPark_charter_resolution)

Statutes

In many circumstances, state laws must be written or amended to implement ranked choice voting. The links below include implemented statutes and also model statutes developed by the organization FairVote, a non-profit advocating for the adoption of ranked choice voting. These links are broken

down by how strictly the statutes available define ranked choice voting and how to count/adjudicate ranked choice ballots.

Define "RCV," Ballot Adjudication Rules

These statutes define what RCV is in the jurisdiction (if electing a single seat or multiple seats), how to count RCV elections, and how to adjudicate individual ballots. They cover as many issues as is reasonable in an RCV statute.

IN PRACTICE: Minneapolis, MN Statute
single- and multi-seat RCV (http://bit.ly/MN_municipal_elections_rules)

RCV TOOL: FairVote Model Statute
single- and multi-seat RCV (http://bit.ly/model_statute_single_multi)

RCV TOOL: FairVote Model Statute
single-seat RCV (http://bit.ly/model_statute_single)

Define "RCV" broadly: no detailed rules:

This statute is a prime example of a more basic RCV statute: it defines only what RCV is in Basalt, CO, (a single seat RCV election for Mayor) and defines how that RCV election should be counted. It does not define how to adjudicate individual ballots.

IN PRACTICE: Basalt, CO Statute
single-seat RCV (http://bit.ly/BasaltCo_Statute)

Permits RCV:

This is an example of the most basic RCV statute possible: it says only that RCV is permitted, and goes no further.

IN PRACTICE: Santa Clara County, CA Statute
single-seat RCV (http://bit.ly/SantaClaraCo_Statute)

RCV TOOL: FairVote Model Charter Amendment
single- and/or multi-seat RCV (http://bit.ly/model_charter_amendment)

RCV for Military and Overseas Ballots:

Alabama's RCV law for military and overseas voters is the best example of such RCV laws: it describes the RCV process used and how RCV ballots are to be sent to military and overseas voters. Like all

other military and overseas voter RCV laws, it provides only basic instructions on ballot counting, how ballots should be designed, and how to adjudicate ballots.

IN PRACTICE: Alabama Statute
single-seat RCV (http://bit.ly/AL_UOCAVA_RCV)

IN PRACTICE: South Carolina Regulations and Instructions
single-seat RCV (http://bit.ly/SC_UOCAVA_RCV)

Voluntary Voting Systems Guidelines (VVSG): RCV Definitions & Tabulation Procedures

The next version of the Voluntary Voting System Guidelines (VVSG), targeted to be finalized in 2017, is anticipated to include model specifications for RCV voting methods. Future statutory authorizations may elect to reference these guidelines in order to ensure precise and consistent definitions and vote tabulation procedures.

RCV TOOL: VVSG Spreadsheet – RCV Definitions & Tabulation Procedures
(http://bit.ly/VVSG_RCV_spreadsheet)

RCV & VOTING SYSTEMS/EQUIPMENT
(http://www.rankedchoicevoting.org/voting_equipment)

Voting Systems Capability

The Ranked Choice Voting Resource Center has done extensive research into voting system vendors and voting systems' RCV capabilities. The Voting Systems RCV Capability Table provides a detailed analysis of the capability of voting equipment currently in use by U.S. jurisdictions. Information provided in the Capability Table or in the summary below are subject to the voting system's ability to incorporate the jurisdiction's counting and tabulation rules into the tabulation algorithm.

RCV TOOL: Voting Systems RCV Capability Table
(http://bit.ly/RCV_Capability_Table)

Summary of Voting System RCV Capabilities by Vendor
The four largest voting equipment vendors servicing elections in the U.S. have either built-in RCV tabulation or the ability to generate CVR data:

- UNISYN VOTING: RCV tabulation is built-in to Unisyn's Open Elect system, which includes the Open Elect software and voting equipment (OpenElect OVO and OVCS). Open Elect 1.0 was the first system with native RCV capability certified by the EAC (January 2010). Open Elect 1.3 is the most recent EAC-certified voting system from Unisyn, and also has native RCV capability. Open Elect allows up to three RCV rankings using a grid-style ballot.

- HART INTERCIVIC: Verity software and hardware (Verity Central, Scan, and Touch) have built-in RCV tabulation. Verity 2.0 software allows voters to rank up to six candidates and was certified by the EAC in April 2016. The previous software iteration, Verity 1.0 is limited to five RCV rankings. Hart InterCivic's previous voting system, HVS software with compatible voting equipment Ballot Now (high speed scanner), eScan (optical scan), and eSlate (DRE), does not have built-in RCV tabulation. RCV ballots can be designed for this system with the HVS software, and CVR files can be extracted from the voting equipment for tabulation by a third-party tabulation system.

- ELECTION SYSTEMS & SOFTWARE (ES&S): ES&S does not currently offer built-in RCV tabulation; however, the company's latest voting system can generate CVRs for third-party tabulation. Specifically, EVS 5.2 and 5.4 software can be used to design RCV ballots in column or grid formats and CVR files can be exported for third-party tabulation. Both are EAC certified, but their specific RCV functionalities were not tested for EAC certification. An earlier software version, EVS 5.1, is not EAC certified and can only produce a column-style RCV ballot and CVR data for export. ES&S recently received approval by the EAC for testing of EVS 6.2, which includes RCV ballot formatting for column and grid styles and CVR for export. ES&S's previous election management software, Unity, can be used to design column style RCV ballots. The RCV capability of ES&S voting equipment is dependent upon the firmware and software versions of the system. The DS200 and DS850 are compatible with EVS or Unity software. The RCV capability of these models is dependent upon the capability of the software and firmware. DS450, Express Vote, and ExpressTouch hardware are compatible with EVS, which provides RCV capability depending upon the EVS version. Legacy hardware – iVotronic, M100, and M650 – is compatible with the Unity software. Of these models, only the iVotronic produces CVR data.

- DOMINION VOTING: Dominion Voting offers built-in RCV tabulation through an additional module to its Democracy Suite software with ImageCast voting equipment. Democracy Suite is EAC certified; however, the RCV module is not currently certified by the Commission. The company indicates the ability to rank up to 10 candidates with the module. AccuVote models, AVC Advantage, AVC Edge, and Optech models are capable of generating CVR data using column-style RCV ballots for third-party RCV tabulation.

Two other vendors provide voting systems to a limited number of U.S. jurisdictions: Clear Ballot and MicroVote. Clear Ballot's system is capable of generating exportable data for third-party RCV tabulation, though the company would prefer to develop an end-to-end, in-box RCV process with a partner jurisdiction. MicroVote does not have a built-in RCV tabulation option, but is receptive to working on methods for RCV tabulation.

Innovation in the voting systems arena is on-going. From the largest voting equipment vendors to graduate students working on thesis projects, efforts to improve and enhance voting equipment with the latest technology or to incorporate additional voting methods such as ranked choice voting are in development. The Ranked Choice Voting Resource Center has worked in collaboration with several entities on these projects, and several RCV jurisdictions have contracted for the assistance of third-party vendors for tabulation. Key contributors to these efforts are:

- Third-party tabulation

- MK Election Services and True Ballot have used computer applications to tabulate RCV results from CVRs generated by voting systems in jurisdictions such as Cambridge, MA, and Portland, ME.
- Voting innovation
  - Bright Spots – Based in San Francisco, BrightSpots is a cutting-edge group working to use technology to promote democracy. This group is helping the Ranked Choice Voting Resource Center to develop an RCV tabulator that is projected to go through federal testing and can use CVR data exported from any capable voting equipment to tabulate RCV results.
  - OpaVote – Online election administration for multiple voting methods, including ranked choice voting. The company's Counts system provides results for ranked ballots collected from paper ballots or another electronic voting system.
  - Voatz – Mobile voting platform with RCV capability using biometrics and blockchain for security, auditability, and voter anonymity.

Implementing Ranked Choice Voting Statewide and Across Jurisdictions When Multiple Voting Systems Are Used

Though there are recommended federal voting system standards, each state voting system configuration is unique and administration laws vary. Some states have multiple voting systems manufactured by different vendors. Some use one vendor, but have different models of voting equipment. Having varying configurations creates several scenarios for implementation. "Implementing Ranked Choice Voting Statewide and Across Jurisdictions When Multiple Voting Systems Are Used" outlines the different implementation scenarios and defines processes for each configuration.

> RCV TOOL: Implementing Ranked Choice Voting Statewide and Across Jurisdictions When Multiple Voting Systems Are Used
> (http://bit.ly/RCV_multiple_voting_systems)

Model RCV Voting System Project/Tabulator

A group of stakeholders, election officials, advocates, and interested individuals are working together to offer a **Model RCV Voting System**. Almost all RCV jurisdictions in the United States are represented; the Center for Civic Design, Clear Ballot, and Oxide Design Co. are participating; and four of the five largest voting equipment vendors are participating to varying degrees.

With the technical expertise of Bright Spots – a cutting-edge, San Francisco based group working to use technology to promote democracy – the Ranked Choice Voting Resource Center is developing a tabulator that can use cast vote records (CVRs) exported from capable voting equipment to tabulate RCV results. Plans are to have this formally evaluated by an EAC-approved testing lab, and we intend to offer the tabulator to jurisdictions for little or no cost.

BUDGETING

(http://www.rankedchoicevoting.org/budgeting)

Administering elections incurs many expenses. Election officials must be good stewards of taxpayers' dollars while ensuring all costs of an election are met. Election procedures and policies vary from state to state, and costs vary widely, too. This can also be the case for costs associated with RCV, meaning individual jurisdictions will have to estimate costs on a case-by-case basis.

Ranked choice voting impacts election costs in a number of ways. It can decrease costs through:

- elimination of runoffs
- elimination of second primaries
- elimination of off-cycle primaries

However, some costs may be incurred specific to ranked choice voting, especially during initial implementation and if a jurisdiction does not typically allocate for these election-related expenses. These may include:

- voter education and outreach
- upgrading election systems
- candidate education and outreach
- poll worker training

Minneapolis and the Bay Area cities that adopted RCV eliminated primary and runoff elections, respectively, saving the cities the large expense required for those additional elections. However, they each had to invest in upgrading their election systems, either through software or hardware upgrades, and initially they invested heavily in voter education and poll worker training. The resources provided give some context for expenses/costs to help guide you through the budgeting process, and in many cases, illustrate how highly variable budgets may be from jurisdiction to jurisdiction.

IN PRACTICE: Maine Fiscal Note and Impact Statement
(http://bit.ly/Maine_fiscalnote)

RCV TOOL: RCVRC Analysis of Maine Fiscal Note
(http://bit.ly/RCVRC_Maine_fiscalnote_analysis)

IN PRACTICE: Minneapolis 2013 Election Analysis & Recommendations
(http://bit.ly/Minneapolis_assessment_2013)

IN PRACTICE: North Carolina Experience
(http://bit.ly/NC_RCV_Experience)

IN PRACTICE: Telluride IRV Update
(http://bit.ly/TellurideCO_IRVUpdate)

RCV BALLOTS

Usability Study Phase I
(http://www.rankedchoicevoting.org/usability)

In 2016, the Ranked Choice Voting Resource Center and FairVote partnered with the Center for Civic Design to research best practices for ranked choice ballot design, voter education, and results presentation. The Center for Civic Design wrapped up the first phase of that research in December 2016. They have produced a report that provides principles and guidelines for designing ranked choice voting ballots, voter education, and results presentation. Hyperlinks have been provided below to access the report and supporting documents through the Ranked Choice Voting Resource Center website.

RCV TOOL: Usability Study Phase I Report and Supporting Documents
- Principles and Guidelines Report:
  - http://bit.ly/Usability_Report
- Ballot Design Testing Documents:
  - http://bit.ly/ballot_design_usability
- Voter Education Testing Document:
  - http://bit.ly/Voter_Education_Usability
- Results Presentation Testing Document:
  - http://bit.ly/Results_Presentation_Usability

Ballot Design

Designing the ballot is one of the most important tasks in running an election – voters of all education levels must be able to understand how to use the ballot with minimal confusion to be sure their vote is correctly communicated through their ballot. The ballot layout must be easy to understand and guide voters through the sometimes-complicated process of voting with little difficulty. Essentially, the ballot must be designed for maximum usability by the voter.

Through the partnership with the Center for Civic Design, the Principles and Guidelines Report was released in early 2017. Pages 44-77 of this report focus on ballot design, including paper ballots and digital ballots. The Ballot Design Testing Documents are also available through the Ranked Choice Voting Resource Center website.

RCV TOOL: Usability Study Phase I Principles and Guidelines Report
(http://bit.ly/Usability_Report)

RCV TOOL: Usability Study Phase I Ballot Design Testing Documents
(http://bit.ly/ballot_design_usability)

Since ranked choice voting has been a proven voting method for more than a hundred years in the United States and in other countries, ranked choice voting ballots have existed just as long. Throughout the history of this voting method, lack of electronic voting equipment and software meant jurisdictions conducted RCV elections through manual sorting and counting processes. RCV ballot design has evolved as voting equipment technology has evolved. Voting systems purchased or leased in the 2000s did not have built RCV capability, so RCV jurisdictions had to find work-arounds with ballot design and tabulation. As the use of RCV grew and interest in the voting method resurged, voting system vendors have worked to incorporate ranked choice voting into their systems.

Ballot Design Voting System Capability

RCV TOOL: Voting Systems RCV Capability Table
identifies RCV ballot design options for current voting systems
(http://bit.ly/RCV_Capability_Table)

Ballot Styles

IN PRACTICE: Alabama 2013 UOCAVA Ballot
column style, provided to UOCAVA voters (military and overseas citizens)
(http://bit.ly/Alabama_UOCAVAballot_2013)

IN PRACTICE: Alameda Co., CA 2010 Sample Ballot
column style (http://bit.ly/AlamedaCoCA_sampleballot_2010)

IN PRACTICE: Burlington, VT 2006 Mayoral Ballot
grid style (http://bit.ly/BurlingtonVT_ballot_2006)

IN PRACTICE: Cambridge, MA Sample Ballot
grid style (http://bit.ly/CambridgeMA_sampleballot)

IN PRACTICE: Cary, NC 2007 Demo Ballot
grid style (http://bit.ly/CaryNC_demoballot_2007)

RCV TOOL: Maine Supreme Court Exhibit Sample Ballot Design
designed by RCV Resource Center, grid style (http://bit.ly/Maine_Ballot_Example)

IN PRACTICE: Minneapolis, MN 2009 Ballot Ward 4 Precinct 5
column style (http://bit.ly/MinneapolisMN_ballot_2009)

IN PRACTICE: North Carolina 2010 Sample Ballot
*column style, RCV and non-RCV contests on same ballot, RCV contest on page 2
(http://bit.ly/NC_sampleballot_2010)*

IN PRACTICE: Portland, ME 2015 Mayoral Ballot
grid style (http://bit.ly/PortlandME_ballot_2015)

IN PRACTICE: San Francisco, CA Demo Ballot 2015 English & Chinese
column style (http://bit.ly/SF_demoballot_2015)

RCV TOOL: Santa Fe, NM Example Ballot
designed by RCV Resource Center, grid style (http://bit.ly/SantaFe_exampleballot)

IN PRACTICE: Springfield, IL 2015 UOCAVA Ballot
*list style, provided to UOCAVA voters (military and overseas citizens)
(http://bit.ly/SpringfieldIL_UOCAVAballot_2015)*

IN PRACTICE: St. Paul, MN 2011 Sample Ballot
column style (http://bit.ly/StPaulMN_sampleballot_2011)

EDUCATION & OUTREACH

The Ranked Choice Voting Resource Center has developed education materials and collected education and outreach materials from jurisdictions that have already implemented RCV.

Voter, Candidate, & Election Official Education and Outreach

Education and outreach are key components of a successful ranked choice voting election. Ideally, RCV education and outreach will complement existing efforts for voters, candidates, and election officials. There are many ways to educate and reach these audiences on RCV processes and many layers of possible contact or interaction that can occur. Education and outreach efforts can also be shared with other government entities, political parties, civic organizations, and the media to help ensure the broadest reach to the electorate.

These efforts do not have be costly, even during initial implementation of RCV. There are many proven, cost-effective methods to employ – civic club presentations, flyers that can be distributed or inserted into water bills, public service announcements, social media and websites, just to name a few. A small number of education and information materials can be developed and used across numerous outlets. And in particular for voter education, previous implementations have proven that the most impactful and inexpensive voter education method is verbal and written instruction when the voters present themselves to vote.

A broad spectrum of tools, examples, and best practices have been developed for RCV education and outreach including:

RCV TOOL: Ranked Choice Voting Resource Center Educational Toolbox
(http://www.rankedchoicevoting.org/educational_toolbox)

RCV TOOL: Ranked Choice Voting Resource Center Webinar: ABCs of RCV
(http://bit.ly/ABCs_of_RCV_Webinar) and supplemental Q&A document: ABCs of RCV Post-Webinar Q&A (http://bit.ly/ABCs_of_RCV_QA)

IN PRACTICE: Alameda Co., CA Education & Outreach Resources
- Brochure (http://bit.ly/AlamedaCoCA_RCVbrochure)
- Community Presentation (http://bit.ly/AlamedaCoCA_Community_Presentation)
- Facilitator Class Presentation (http://bit.ly/AlamedaCoCA_facilitator_education)
- Video PSAs: English (http://bit.ly/AlamedaCoCA_EnglishPSA); Chinese (http://bit.ly/AlamedaCoCA_ChinesePSA); Spanish (http://bit.ly/AlamedaCoCA_SpanishPSA); Tagalog (http://bit.ly/AlamedaCoCA_TagalogPSA); Vietnamese (http://bit.ly/AlamedaCoCA_VietnamesePSA)

IN PRACTICE: Burlington, VT Education Flyer
(http://bit.ly/BurlingtonVT_educationflyer)

IN PRACTICE: Cambridge, MA Brochure
(http://bit.ly/CambridgeMA_Brochure)

IN PRACTICE: Cary, NC Education & Outreach Resources
- Presentation 2007 (http://bit.ly/CaryNC_Presentation_2007)
- Helpdesk Sheet (http://bit.ly/CaryNC_Helpdesk_Sheet)

IN PRACTICE: Hendersonville/Henderson Co., NC Education & Outreach Resources
- Flyer: 2007 (http://bit.ly/HendersonvilleNC_flyer_2007); 2009 (http://bit.ly/HendersonvilleNC_flyer_2009)
- Information Meeting Poster (http://bit.ly/HendersonvilleNC_InformationMeetingPoster)
- Presentation 2007 (http://bit.ly/HendersonvilleNC_Presentation_2007)
- Presentation 2009 (http://bit.ly/HendersonvilleNC_Presentation_2009)
- Precinct Official (Poll worker) Training 2010 (http://bit.ly/HendersonCoNC_PWTraining_2010)
- Teaching Tool (http://bit.ly/HendersonCoNC_IRV_TeachingTool)

IN PRACTICE: Minneapolis, MN Education & Outreach Resources
- How To Vote An RCV Ballot Flyer (http://bit.ly/Minneapolis_HowToVote_flyer)
- Outreach and Education Plan 2014 (http://bit.ly/MinneapolisMN_EduPlan_2014)
- RCV Flyer (http://bit.ly/MinneapolisMN_flyer)

TABULATION & RESULTS

Whether established through legislation or determined after the adoption of ranked choice voting, defining the rules and procedures for tabulating the RCV election and reporting the results are critical steps in the implementation process. Once established, these rules become the basis for how a jurisdiction counts the ballots whether by hand-count or as the requirements for a voting system.

Voluntary Voting Systems Guidelines (VVSG): RCV Definitions & Tabulation Procedures

These definitions and tabulation procedures are being considered for the next version of the Voluntary Voting System Guidelines (VVSG), which are targeted to be finalized in 2017 and are anticipated to include model specifications for RCV voting methods.

RCV TOOL: VVSG Spreadsheet – RCV Definitions & Tabulation Procedures (http://bit.ly/VVSG_RCV_spreadsheet)

Usability Study Phase I
(http://www.rankedchoicevoting.org/usability)

In 2016, the Ranked Choice Voting Resource Center and FairVote partnered with the Center for Civic Design to research best practices for ranked choice ballot design, voter education, and results presentation. The Center for Civic Design wrapped up the first phase of that research in December 2016. Below is the Phase I report on results presentation. Phase II will be released in 2018 and will have more detailed findings about presenting RCV results.

RCV TOOL: Usability Study Phase I Report and Supporting Documents
- Principles and Guidelines Report:
  - http://bit.ly/Usability_Report
- Results Presentation Testing Document:
  - http://bit.ly/Results_Presentation_Usability

IN PRACTICE: Tabulation & Results Resources from RCV Jurisdictions

IN PRACTICE: Cary, NC Tabulation & Results Resources
- IRV and Ballot-Counting (http://bit.ly/CaryNC_IRVcounting)
- IRV and Ballot-Counting on Optical Scan Machines (http://bit.ly/CaryNC_IRVcounting_opticalscan)
- IRV Procedures (http://bit.ly/CaryNC_IRVprocedures)

IN PRACTICE: Hendersonville, NC IRV DRE Procedures (http://bit.ly/HendersonvilleNC_IRV_DRE)

IN PRACTICE: Minneapolis RCV Counting Document (http://bit.ly/MinneapolisMN_Counting)

IN PRACTICE: Portland, ME RCV Rules & Regulations (http://bit.ly/PortlandME_Rules)

IN PRACTICE: San Leandro, CA Definitions (http://bit.ly/SanLeandroCA_Definitions)

IN PRACTICE: South Carolina Counting Instructions (http://bit.ly/SC_Counting)

IN PRACTICE: St. Paul, MN RCV Summary (http://bit.ly/StPaulMN_Summary)

IN PRACTICE: Takoma Park, MD Ballot Counting Procedures (http://bit.ly/TakomaParkMD_BallotCounting)

IN PRACTICE: Telluride, CO Tabulation & Results Resources
- Counting Procedures Memo (http://bit.ly/TellurideCO_CountingMemo)
- IRV Procedures Manual (http://bit.ly/TellurideCO_ProceduresManual)

AUDITING

Post-election audits are conducted to verify the voting system worked properly and results are correct. This verification process is considered a best practice for both RCV and non-RCV elections. Post-election audits also ensure transparency and often reduce the need for recounts or shorten the recount process. Today, more than 30 U.S. states require some form of post-election audit.

Post-election audits are most commonly either conventional or risk-limiting.

RCV TOOL: Ranked Choice Voting Implementation in Maine: Audits
(http://bit.ly/Maine_Implementation_Audits)

IN PRACTICE: North Carolina Audit Procedures & Reports
- Audit Assessment 2012 (http://bit.ly/NC_AuditReport_2012)
- Sample Audit Count (http://bit.ly/NC_SampleAudit_Statute)

POST-ELECTION REPORTS & EXIT POLLS

With the election certified and results finalized, a few final steps are needed for a complete implementation plan. Now is the time to focus on evaluations, lessons learned, and communicating outcomes and analysis to the audiences who participated in the election and new RCV voting method – the voters, candidates, and election officials as well as the additional parties that participated like other government entities, political parties, civic organizations, and the media.

Examples of post-election reports include:

- Exit surveys
- Post-election press releases
- Lessons learned sessions and reports
- Post-election assessment and analysis
- Best practices compilation
- Meetings with proponents and opponents for feedback

IN PRACTICE: Tabulation & Results Resources from RCV Jurisdictions

IN PRACTICE: Cary, NC Exit Poll Resources
- Exit Poll Data (http://bit.ly/CaryNC_ExitPolldata)
- Exit Poll Press Release (http://bit.ly/CaryNC_ExitPollPR)

IN PRACTICE: Hendersonville, NC Post-Election Resources
- Exit Poll Data (http://bit.ly/HendersonvilleNC_ExitPolldata)
- Exit Poll Press Release (http://bit.ly/HendersonvilleNC_ExitPollPR)
- Post-election League of Women Voters Presentation 2007 (http://bit.ly/HendersonvilleNC_LWVPP)
- Post-election presentation 2007 (http://bit.ly/HendersonvilleNC_PostPP)

IN PRACTICE: Minneapolis, MN Post-Election Resources

- St. Cloud State University Survey Research Report 2009 (http://bit.ly/MinneapolisMN_2009Survey)
- 2013 Election Analysis & Recommendations (http://bit.ly/Minneapolis_assessment_2013)

IN PRACTICE: North Carolina Post-Election Resources

- Exit Poll Comparison Data 2007 (http://bit.ly/NC_ExitPollComparison)
- Legislative Report on Pilot Programs (http://bit.ly/NC_PilotReport)

IN PRACTICE: San Francisco, CA Post-Election Resources

- San Francisco State University Assessments: 2004 (http://bit.ly/SF_2004Assessment) 2005 (http://bit.ly/SF_2005Assessment)
- Analysis of Latino Voter Experience 2005 (http://bit.ly/SF_LatinoVoter2005)

IN PRACTICE: Telluride IRV Update
(http://bit.ly/TellurideCO_IRVUpdate)

THE RANKED CHOICE VOTING RESOURCE CENTER CONSULTING TEAM

(http://www.rankedchoicevoting.org/about)

Gary Bartlett, Director

gary.bartlett@rankedchoicevoting.org

Having served as Executive Director for the State Board of Elections of North Carolina for 20 years, Gary moved the state to the national forefront of election administration. The agency developed innovative and efficient processes and gained national recognition as a model in managing voter registration at non-election offices such as DMV, establishing one of the first certification programs for election officials, conducting wellness checks to ensure compliance and uniformity in the county election offices, and was the first state elections office in the US to implement technology to ensure voters receive the proper ballots. Also during his tenure, NC conducted the first statewide instant runoff voting election in the era of modern voting machines. Gary has served on numerous federal boards and commissions. He continues to be featured as a panelist and recognized authority regarding election administration.

George Gilbert, Deputy Director

george.gilbert@rankedchoicevoting.org

From 1988-2013, George served as Director of Elections to the Guilford County Board of Elections. It is a jurisdiction of more than 360,000 registered voters and includes the cities of Greensboro and High Point, NC. During his 25 years in this position, George administered more than 65 elections including seven presidential elections. George was a nationally Certified Election/Registration Administrator (CERA) through the Election Center and Auburn University. He served during 2001 and 2005 on the Election Center's Ad Hoc Task Force on Election Law Reform and, from 2007-2012, Co-chaired the Legislative Committee of the National Association of Election Officials (NAEO). George testified before congressional committees on multiple occasions and participated in election related workshops sponsored by the National Academies of Science, the American Association for the Advancement of Science and the Pew Trust for the States. He also participated in Election Assistance Commission working groups in the development of best practices publications issued by the EAC and served on the NC Uniformity Standards working group. Preceding his service in Guilford County, he spent six years as a Legislative Assistant in the US Senate. This

service was preceded by two years as a research assistant in the Congressional Research Service in the Library of Congress in Washington, DC.

Karen Brinson Bell
karen.brinson@rankedchoicevoting.org
Karen's elections career spans more than 10 years, including four years as Elections Director for Transylvania County, NC, and five years with the NC State Board of Elections Voting Systems Division. During her tenure, she helped administer instant runoff (IRV) elections for the City of Hendersonville in 2007 and 2009, a district court IRV election in 2010, and a statewide IRV election for a NC Court of Appeals seat in 2010. A certified project management professional (PMP), Karen has also completed coursework towards the Election Center's CERA designation, is a certified NC Elections Administrator, and has participated in panels and reports for the EAC and Brennan Center for Justice.

Connie Schmidt
scjschmidt@aol.com
From September 1995 to December 2004, Connie served as Election Commissioner for Johnson County, KS. She worked in local government in Johnson County for a total of 31 years. Since 2005 she has owned an election consulting business and has provided consulting services to numerous local, state, and federal election agencies. She has provided consulting services to the US Election Assistance Commission (EAC) and served as the co-project manager for the EAC's Election Management Guidelines and Quick Start Guides. At the national level, she served as the chair of the Professional Education Program Certification Board for The Election Center and as a member of the NASED Voting Systems Standards Board. She earned the designation of Certified Election Registration Administrator (CERA) in 2002. In December 2004, she received the National Association of Secretaries of State (NASS) Medallion Award for outstanding service to American democracy. In August 2005, she received a Lifetime Membership Award from the Election Center, Inc., and in August 2007, she received the Election Hall of Fame Award from The Election Center, Inc. In 2013, she provided election consulting services to the City of Minneapolis, Minnesota, including planning for their November RCV municipal election.

Beverly York
beverly.york@rankedchoicevoting.org
Beverly's career in election administration began in 2006, working as a District Election Technician for the state of NC. She has since worked as the Deputy Director for the Wayne County (NC) Board of Elections. She has completed coursework toward certification as an NC Elections Administrator.
Prior to her election career, Beverly retired, after 20 years, as an education and customer service manager with IBM Corporation.

Ranked Choice Voting
RESOURCE CENTER

APPENDIX A: SUGGESTED IMPLEMENTATION MODELS

Drawing on the many years of experience the Ranked Choice Voting Resource Center Consulting Team has in overseeing statewide, municipal, and district RCV elections, one of the outcomes of the group's work is to provide consultation to jurisdictions looking to implement RCV. Team members have also been called upon to provide testimony and information for court proceedings and to legislative committees, other governing bodies, election administrators, and community groups. Some of the jurisdictions where the project team has provided implementation guidance and/or analysis for the following:

- Hawaii
    - House Committee on Judiciary testimony: http://bit.ly/Hawaii_Testimony_2017
    - Memo regarding voting equipment: http://bit.ly/Hawaii_Equipment_memo
- Kansas
    - Summary document presented to House Committee on Elections: http://bit.ly/Kansas_Summary
- Maine
    - Affidavit by Gary Bartlett to Maine Supreme Court: http://bit.ly/Maine_Affidavit
    - Fiscal Note Analysis: http://bit.ly/RCVRC_Maine_fiscalnote_analysis
    - Sample ballot designs as Maine Supreme Court exhibit: http://bit.ly/Maine_Ballot_Example
    - Tally sheet design as Maine Supreme Court exhibit: http://bit.ly/Maine_Tally_Example
    - RCV Implementation in Maine concept papers developed as collaboration of the Ranked Choice Voting Resource Center, the League of Women Voters of Maine, FairVote, and David Cary:
        - Security and Transparency: http://bit.ly/Maine_Implementation_Security_Transparency
        - Recounts: http://bit.ly/Maine_Implementation_Recounts
        - Audits: http://bit.ly/Maine_Implementation_Audits
- Montgomery County, MD
    - Example ballot: http://bit.ly/MontgomeryCoMD_exampleballot
- North Carolina
    - North Carolina Experience: Ranked Choice Voting http://bit.ly/NC_RCV_Experience

- Santa Fe, NM
    - Affidavit by Gary Bartlett to New Mexico Supreme Court: http://bit.ly/SantaFeNM_Affidavit
    - Example ballot: http://bit.ly/SantaFe_exampleballot
    - Memo to Santa Fe City Council: http://bit.ly/SantaFe_CouncilMemo
- Utah
    - Options for Administering Ranked Choice Voting in Utah Primary Elections document: http://bit.ly/Utah_RCV_Admin_Options
    - Presentation to Interim Session Government Operations Committee: http://bit.ly/Utah_GovOpsPP
    - Ranked choice voting language for RFPs for new voting equipment: http://bit.ly/Utah_RCV_RFP

APPENDIX B: DEFINITIONS & TABULATION PROCEDURES

This spreadsheet is a compilation of ranked choice voting definitions and tabulation procedures. The next version of the Voluntary Voting System Guidelines (VVSG), targeted to be finalized in 2017, is anticipated to include model specifications for RCV voting methods. This spreadsheet is being considered by the VVSG committee as the specifications are being prepared.

RCV TOOL: VVSG Spreadsheet – RCV Definitions & Tabulation Procedures
(http://bit.ly/VVSG_RCV_spreadsheet)

APPENDIX C: RCV JURISDICTION RESOURCES

(http://www.rankedchoicevoting.org/where_used)

Resources collected from RCV jurisdictions are part of the Ranked Choice Voting Resource Center. To access these files, go to http://www.rankedchoicevoting.org/where_used.

Major Voting Equipment Vendors' Ranked Choice Voting Capabilities

(Version Date 9-21-2017)

A voting system's ranked choice voting (RCV) capability is dependent upon the configuration of the hardware, firmware, and software, which vary by vendor; when the system was purchased or leased; and firmware or software upgrades that may have been performed since purchase. Built-in RCV capability or the ability for the voting system to generate cast vote records (CVR) also impacts a voting system's RCV capability.[1]

The Ranked Choice Voting Resource Center (RCVRC) has done extensive research regarding voting system vendors and voting systems' RCV capabilities. The Voting Systems RCV Capability Table (http://bit.ly/RCV_Capability_Table) provides a detailed analysis of the capability of voting equipment currently in use by U.S. jurisdictions.

Summary of Voting System RCV Capabilities by Vendor

The four largest voting equipment vendors servicing elections in the United States have either built-in RCV tabulation or the ability to generate CVR data:

- **Unisyn Voting:** RCV tabulation is built-in to Unisyn's Open Elect system, which includes the Open Elect software and hardware (OpenElect OVO and OVCS). Open Elect 1.0 was the first system with native RCV capability certified by the EAC (January 2010). Open Elect 1.3 is the most recent EAC-certified voting system from Unisyn, and also has native RCV capability. Open Elect allows up to three RCV rankings using a grid-style ballot.

- **Hart InterCivic:** Verity software and hardware (Verity Central, Scan, and Touch) have built-in RCV tabulation. Verity 2.0 software allows voters to rank up to six candidates and was certified by the EAC in April 2016. The previous software iteration, Verity 1.0, is limited to five RCV rankings. Hart InterCivic's previous voting system, HVS software with compatible hardware Ballot Now (high speed scanner), eScan (optical scan), and eSlate (DRE), does not have built-in RCV tabulation. RCV ballots can be designed for this system with the HVS software, and CVR files can be extracted from the voting equipment for tabulation by a third-party tabulation system.

- **Election Systems & Software (ES&S):** ES&S does not offer built-in RCV tabulation, but the company's latest voting system can generate CVRs for third-party tabulation. EVS 5.2 and 5.4 software can be used to design RCV ballots in column or grid formats and CVR files can be exported for third-party tabulation. Both are EAC certified, but their specific RCV functionalities were not tested for EAC certification. An earlier software version, EVS 5.1, is not EAC certified. It can export CVR data for tabulation, and can produce a column-style RCV ballot. ES&S recently

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[1] Voting system is an umbrella term for the hardware, firmware, and software used in elections, which are broadly defined as: hardware, the voting equipment machines used to cast a ballot; firmware, installed in voting equipment to make the machines compatible with the software; and software, used to design and tabulate ballots. Cast vote records are data or ballot images of the votes cast. If these anonymous, secure records can be extracted from the voting system, then a third-party software or application can be used to tabulate RCV results.

submitted EVS 6.2, including RCV ballot formatting for column and grid styles and CVR export functionality, to the EAC for testing. This will mark the first federal testing of ES&S's RCV functionalities. ES&S's previous election management software, Unity, can be used to design column-style RCV ballots. The RCV capability of ES&S hardware is dependent upon the firmware and software versions of the system. The DS200 and DS850 are compatible with any EVS or Unity software. DS450, Express Vote, and ExpressTouch hardware are compatible with any EVS software. Of ES&S's legacy hardware – iVotronic, M100, and M650, all compatible with Unity software – only the iVotronic produces CVR data, making it the only RCV Capable legacy voting equipment from ES&S.

- **Dominion Voting:** Dominion Voting offers built-in RCV tabulation through an additional module to its Democracy Suite software with ImageCast voting equipment. Democracy Suite is EAC certified, but the RCV module is not currently certified by the Commission. The company indicates the ability to rank up to 10 candidates with the module. AccuVote models, AVC Advantage, AVC Edge, and Optech models are capable of generating CVR data using column-style RCV ballots for third-party RCV tabulation.

Two other vendors provide voting systems to a limited number of U.S. jurisdictions: **Clear Ballot** and **MicroVote**. Clear Ballot's system is capable of generating exportable data for third-party RCV tabulation, though the company would prefer to develop an end-to-end, in-box RCV process with a partner jurisdiction. MicroVote does not have a built-in RCV tabulation option, but is receptive to working on methods for RCV tabulation.

Third Party Support for RCV Elections

A number of groups provide RCV tabulation support or are developing applications for RCV tabulation. The two most prominent are highlighted here.

- **MK Election Services** uses ChoicePlus Pro to tabulate RCV results from CVRs generated by voting systems in Cambridge, MA, and Portland, ME.

- **Bright Spots** is a cutting-edge group based in San Francisco, working to use technology to promote democracy. This group is helping the Ranked Choice Voting Resource Center to develop the Universal RCV Tabulator outlined below.

Universal RCV Tabulator

The RCVRC and Bright Spots are developing an RCV tabulator that can take CVRs from all voting equipment capable of exporting such records and tabulate RCV results from those CVRs. The RCV Tabulator is planned to be adaptable to as many RCV jurisdictions as possible using current or legacy voting equipment. It will also allow for tabulation and aggregation of RCV results when multiple voting systems are used. Once development is complete, we will have the tabulator evaluated by an EAC-approved testing lab. We intend to offer the tabulator to jurisdictions as free, open-source software.

Official Ballot
City General Election Ballot
City of Minneapolis
November 7, 2017

Judge _____   Judge _____

Ranked Choice Voting Instructions to the Voters
Rank up to 3 different candidates for each office.
Vote from left to right in each office in order of your preference.
To vote, completely fill in the oval(s) next to your choice(s) like this: ●

City Offices

Mayor
Rank your first, second and third choice candidates in the columns below. One to be elected.

1 1st Choice — Select One	**2** 2nd Choice, if any — Must be DIFFERENT from your 1st choice. Select One	**3** 3rd Choice, if any — Must be DIFFERENT from your 1st and 2nd choices. Select One
○ Troy Benjegerdes — Farmer Labor	○ Troy Benjegerdes — Farmer Labor	○ Troy Benjegerdes — Farmer Labor
○ Aswar Rahman — Democratic-Farmer-Labor	○ Aswar Rahman — Democratic-Farmer-Labor	○ Aswar Rahman — Democratic-Farmer-Labor
○ Al Flowers — Democratic-Farmer-Labor	○ Al Flowers — Democratic-Farmer-Labor	○ Al Flowers — Democratic-Farmer-Labor
○ Raymond Dehn — Democratic-Farmer-Labor	○ Raymond Dehn — Democratic-Farmer-Labor	○ Raymond Dehn — Democratic-Farmer-Labor
○ Tom Hoch — Democratic-Farmer-Labor	○ Tom Hoch — Democratic-Farmer-Labor	○ Tom Hoch — Democratic-Farmer-Labor
○ David John Wilson — Rainbows Butterflies Unicorns	○ David John Wilson — Rainbows Butterflies Unicorns	○ David John Wilson — Rainbows Butterflies Unicorns
○ Ronald Lischeid — People Over Politics	○ Ronald Lischeid — People Over Politics	○ Ronald Lischeid — People Over Politics
○ L.A. Nik — Independent	○ L.A. Nik — Independent	○ L.A. Nik — Independent
○ Nekima Levy-Pounds — Democratic-Farmer-Labor	○ Nekima Levy-Pounds — Democratic-Farmer-Labor	○ Nekima Levy-Pounds — Democratic-Farmer-Labor
○ Jacob Frey — Democratic-Farmer-Labor	○ Jacob Frey — Democratic-Farmer-Labor	○ Jacob Frey — Democratic-Farmer-Labor
○ Gregg A. Iverson — Democratic-Farmer-Labor	○ Gregg A. Iverson — Democratic-Farmer-Labor	○ Gregg A. Iverson — Democratic-Farmer-Labor
○ Betsy Hodges — Democratic-Farmer-Labor	○ Betsy Hodges — Democratic-Farmer-Labor	○ Betsy Hodges — Democratic-Farmer-Labor
○ Charlie Gers — Libertarian Party	○ Charlie Gers — Libertarian Party	○ Charlie Gers — Libertarian Party
○ David Rosenfeld — Socialist Workers Party	○ David Rosenfeld — Socialist Workers Party	○ David Rosenfeld — Socialist Workers Party
○ Ian Simpson — The Idea Party	○ Ian Simpson — The Idea Party	○ Ian Simpson — The Idea Party
○ Captain Jack Sparrow — Basic Income Guarantee	○ Captain Jack Sparrow — Basic Income Guarantee	○ Captain Jack Sparrow — Basic Income Guarantee
○ _____ write-in, if any	○ _____ write-in, if any	○ _____ write-in, if any

Council Member Ward Nine
Rank your first, second and third choice candidates in the columns below. One to be elected.

1 1st Choice — Select One	**2** 2nd Choice, if any — Must be DIFFERENT from your 1st choice. Select One	**3** 3rd Choice, if any — Must be DIFFERENT from your 1st and 2nd choices. Select One
○ Alondra Cano — Democratic-Farmer-Labor	○ Alondra Cano — Democratic-Farmer-Labor	○ Alondra Cano — Democratic-Farmer-Labor
○ Ronald W. Peterson — Republican	○ Ronald W. Peterson — Republican	○ Ronald W. Peterson — Republican
○ Mohamed Farah — Democratic-Farmer-Labor	○ Mohamed Farah — Democratic-Farmer-Labor	○ Mohamed Farah — Democratic-Farmer-Labor
○ Gary Schiff — Democratic-Farmer-Labor	○ Gary Schiff — Democratic-Farmer-Labor	○ Gary Schiff — Democratic-Farmer-Labor
○ _____ write-in, if any	○ _____ write-in, if any	○ _____ write-in, if any

Vote Front and Back of Ballot

MINNEAPOLIS W-9 P-02
1755

Typ:01 Seq:0134 Spl:01

City Offices

Board of Estimate and Taxation

Rank your first, second and third choice candidates in the columns below. Two to be elected.

1 1st Choice — Select One	**2** 2nd Choice, if any — Must be DIFFERENT from your 1st choice. Select One	**3** 3rd Choice, if any — Must be DIFFERENT from your 1st and 2nd choices. Select One
○ David B. Wheeler	○ David B. Wheeler	○ David B. Wheeler
○ Carol Becker	○ Carol Becker	○ Carol Becker
○	○	○
write-in, if any	write-in, if any	write-in, if any

Park and Recreation Commissioner At Large

Rank your first, second and third choice candidates in the columns below. Three to be elected.

1 1st Choice — Select One	**2** 2nd Choice, if any — Must be DIFFERENT from your 1st choice. Select One	**3** 3rd Choice, if any — Must be DIFFERENT from your 1st and 2nd choices. Select One
○ Latrisha Vetaw	○ Latrisha Vetaw	○ Latrisha Vetaw
○ Meg Forney	○ Meg Forney	○ Meg Forney
○ Charlie Casserly	○ Charlie Casserly	○ Charlie Casserly
○ Londel French	○ Londel French	○ Londel French
○ Devin Hogan	○ Devin Hogan	○ Devin Hogan
○ Bob Sullentrop	○ Bob Sullentrop	○ Bob Sullentrop
○ Jonathan Honerbrink	○ Jonathan Honerbrink	○ Jonathan Honerbrink
○ Russ Henry	○ Russ Henry	○ Russ Henry
○ Mike Derus	○ Mike Derus	○ Mike Derus
○	○	○
write-in, if any	write-in, if any	write-in, if any

Park and Recreation Commissioner District Three

Rank your first, second and third choice candidates in the columns below. One to be elected.

1 1st Choice — Select One	**2** 2nd Choice, if any — Must be DIFFERENT from your 1st choice. Select One	**3** 3rd Choice, if any — Must be DIFFERENT from your 1st and 2nd choices. Select One
○ Charles Exner	○ Charles Exner	○ Charles Exner
○ AK Hassan	○ AK Hassan	○ AK Hassan
○ Abdi Gurhan Mohamed	○ Abdi Gurhan Mohamed	○ Abdi Gurhan Mohamed
○	○	○
write-in, if any	write-in, if any	write-in, if any

MINNEAPOLIS W-9 P-02
1755

Vote Front and Back of Ballot

Typ:01 Seq:0134 Spl:01

Instructions for Ranked Choice Voting

Making selections

Rank candidates in the order of your choice.

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

Fill in the oval...

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

Fill in the oval completely.

No more than 1 oval in a column.

No more than 1 oval for a candidate.

Mayor

Rank up to 10 candidates.

Mark no more than 1 oval in each column.

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

How to Complete a Ranked Choice Ballot

Step 1: Pick your first choice candidate by completely filling in the oval next to that candidate in the first column.

Step 2: If you have a second choice candidate, completely fill in the oval next to that different candidate under Second Choice column.

Step 3: If you have a third choice candidate, completely fill in the oval next to that different candidate under Third Choice column.

CITY OFFICES

Rank your first, second and third choice in the columns below. One to be elected.

MAYOR

1 1st Choice Select One	2 2nd Choice, if any Must be DIFFERENT from your 1st choice Select One	3 3rd Choice, if any Must be DIFFERENT from your 1st and 2nd choices Select One
◯ THEODORE WIRTH PARK **Parks Party**	● THEODORE WIRTH PARK **Parks Party**	◯ THEODORE WIRTH PARK **Parks Party**
◯ MINNEHAHA PARK & FALLS **Parks United**	◯ MINNEHAHA PARK & FALLS **Parks United**	◯ MINNEHAHA PARK & FALLS **Parks United**
◯ NORTH MISSISSIPPI PARK **Parks Party**	◯ NORTH MISSISSIPPI PARK **Parks Party**	● NORTH MISSISSIPPI PARK **Parks Party**
● CHAIN OF LAKES **Parks United**	◯ CHAIN OF LAKES **Parks United**	◯ CHAIN OF LAKES **Parks United**
◯ DOWNTOWN RIVERFRONT **Parks Party**	◯ DOWNTOWN RIVERFRONT **Parks Party**	◯ DOWNTOWN RIVERFRONT **Parks Party**

? If you are unsure about something or make a mistake, please ask an election judge for help.

You may: Select one candidate.

Error: Do not select the same candidate in more than one column.

You may: Rank two candidates.

Error: Do not select more than one candidate for office in the same column.

You may: Rank three candidates.

Error: Do not skip a column.

How votes are Counted

The first choice votes for all candidates are sorted and counted. If no candidate receives the required number of votes to win, a process of eliminating candidates and considering subsequent choices begins.

Election officials will not use your second or third choice unless your first choice has already been eliminated.
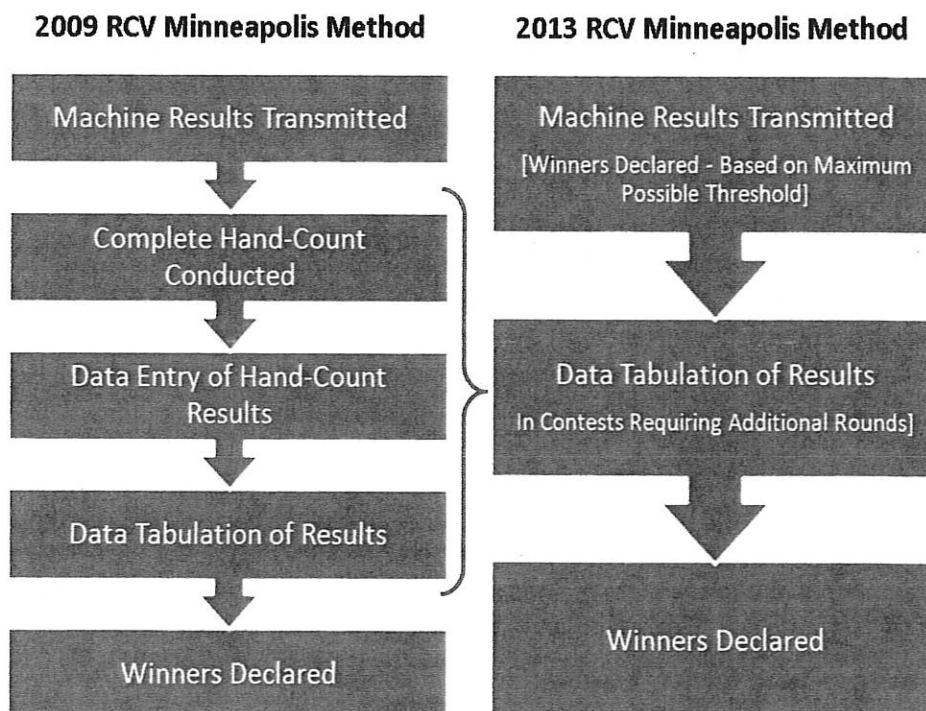
LESSONS LEARNED – CITY OF MINNEAPOLIS

SIGNIFICANT IMPROVEMENTS FOR RANKED-CHOICE VOTING (RCV)

1. **The "Minneapolis Method" (based on a full tabulation by hand) of Ranked-Choice Voting Tabulation**

As a relatively new alternative voting methodology, RCV can (and has been) implemented in different permutations in various jurisdictions while retaining a similar, but not consistent, overall conceptual framework. Thus, how the ballots are specifically tabulated in Minneapolis can differ from other jurisdictions using RCV. Thus, in Minneapolis, where RCV was first implemented for its 2009 municipal election, a tabulation process had to be developed within the conceptual framework provided by the adopted Single-Transferrable Vote (STV) voting methodology using the Weighted-Inclusive Gregory system. The "Minneapolis Method" was developed to support a full hand-count tabulation that is verifiable, wherein each step in the tabulation process can be reproduced exactly. That process was updated for the 2013 municipal election to reflect improvements offered with an exportable Cast Vote Record (CVR) data file that provided the full range of ranked choices in all races on the ballot. Using the CVR data file, the Minneapolis Method was updated to reflect a hybrid tabulation model that used, as its basis, the full hand-count process but used the limited functionality of automated spreadsheets to facilitate the process, realize some efficiency gains, and reduce the potential for human error. In fact, the use of the exportable data file in 2013 allowed for the elimination of three steps in the hand-count process from 2009—the hand-count, data entry, and tabulation—which were the most time-intensive and costly to the City in that first year of implementation. Using the exportable CVR data file in 2013, the City was able to eliminate the hand-count and data-entry steps. This essentially meant that the City went from the transmission of results data immediately to tabulation. It represented a significant savings in time and costs associated with the 2013 election. This is reflected in the following graphic—

2009 RCV Minneapolis Method

- Machine Results Transmitted
- Complete Hand-Count Conducted
- Data Entry of Hand-Count Results
- Data Tabulation of Results
- Winners Declared

2013 RCV Minneapolis Method

- Machine Results Transmitted [Winners Declared - Based on Maximum Possible Threshold]
- Data Tabulation of Results In Contests Requiring Additional Rounds]
- Winners Declared

Looking to the 2017 municipal election, the City anticipates further refining its tabulation process by allowing for batch/bulk elimination of candidates who cannot mathematically continue in future rounds based on a full knowledge of the complete data range in all rank choices in each race.

2. Voter Intent Policy Guidelines

In any election, regardless of the system used, it is possible for voters to mark ballots in a manner that does not allow all choices to be automatically tabulated by voting equipment. Minnesota election law requires every effort be made to accurately count all votes on a ballot and prohibits the rejection of a ballot when it is possible to determine a voter's intent. To that end, state regulations provide detailed guidance on interpreting and determining voter intent for errors common in plurality voting systems. However, there is no guidance in state law for errors unique to RCV. Thus, the City had to devise policy guidance for the handling of voter ballot errors to address errors specific to RCV, which include:

- Overvoting, which is choosing more than one candidate at a single ranking;
- Repeating a candidate in multiple rankings; and
- Skipping a ranking, but choosing a candidate at a lower ranking.

The 2009 RCV ordinance was inconsistent with respect to the treatment of ballots with voter errors. In the case of an overvote, repeat candidate, or multiple skipped rankings, the City's voter intent guidelines did not allow the ballot to count towards any candidate in current or subsequent rounds. In the case of a single skipped ranking, the guidelines allowed the ballot to be counted towards the next highest-ranked continuing candidate, if any. The 2013 amendment eliminated this inconsistent treatment in each instance, requiring that the particular ballot count towards the next highest-ranked, continuing candidate, if any. As a result, all voters received the maximum opportunity of having their ballots count towards a preferred candidate despite any technical error(s), consistent with state law.

In the 2013 municipal election, overvotes occurred on 0.19% of the races voted. Overvoting was higher in multiple-seat races (0.25%) than in single-seat races (0.16%). This can perhaps be explained by the fact that in multiple-seat races in non-RCV elections voters are used to voting for multiple candidates for the office. It is possible the issue of overvoting could be addressed through redesigning the ballot and thereby eliminating the need to repeat candidate names in multiple columns. The City is exploring this issue with the vendor.

Skipped rankings occurred on 0.35% of the races voted in 2013. About half of this total consisted of voters who skipped the first ranking (0.17%), with the remainder evenly split between voters who skipped the second ranking only and voters who skipped both the first and second rankings (0.09% each). It is possible voters misunderstood how to mark an RCV ballot correctly, or that voters believed they were voting strategically in favor of a preferred candidate by skipping rankings. In either case, the City must be prepared to address this issue through better outreach and education plans.

Repeat candidate errors occurred on 3.28% of the races voted. This error occurred on 2.26% of races where there were three or more candidates, and on 6.84% of races in which there were two or fewer candidates in a race. This discrepancy perhaps indicates that some voters felt the need, and perhaps believed it was a requirement, to complete all three rankings on the ballot, despite clear instructions to the contrary—both printed on the ballot and issued orally by election judges in the polling place. Again, this highlights the need for voter education efforts to explain how to properly mark an RCV ballot.

Noteworthy from the 2013 experience is the fact that repeat candidate errors were experienced at a much higher rate than overvoting or skipped rankings. Anecdotal evidence seems to indicate this may be the consequence of voters incorrectly believing that "bullet voting" would help a preferred candidate to advance in a race where additional rounds of tabulation were required. "Bullet voting" is another term

for the repeat candidate error. In reality, bullet voting weakens a voter's ballot and decreases his or her ability to affect the outcome in a particular race. Where bullet voting is encountered, the first-choice ranking for a preferred candidate is processed, and the repeat rankings for the same candidate are eliminated. Regardless of the reason behind the higher levels for repeat candidate errors, the City must be prepared to address this issue when designing future RCV ballots and developing voter education initiatives.

The following table summarizes the RCV-specific errors occurring in the 2013 Municipal Election.

SUMMARY OF RCV BALLOT ERRORS		
Type of Error	Type of Race	Percentage
Overvote	Single-seat	0.16%
Overvote	Multi-seat	0.25%
Overvote	All races	0.19%
Skipped Ranking	All races	0.35%
Repeat Candidate	1-2 candidates	6.84%
Repeat Candidate	3+ candidates	2.26%
Repeat Candidate	All races	3.28%

3. **Use of Election Night Totals of First-Choice Results to Declare Unofficial Winners**

The original RCV ordinance required a full hand-count of all races, even when Election Night results were sufficient to declare winners based on first-choice results. This required significant time and resulted in unnecessary delays in announcing final results. The 2009 mayoral race best illustrated the need to streamline this process, since a full hand-count was conducted even though the winning candidate received 73.6 percent of all first-choice votes on Election Night. Unofficial winners could have been declared on Election Night in 2009 in 15 out of 22 races based on first-choice votes alone. The 2013 amendment allowed candidates who met or exceeded the established threshold based on first-choice vote totals on Election Night to be declared winners. As a consequence, in 2013, winners were declared within 2 hours after polls closed on Election Night in 14 out of 22 races on the ballot—roughly 64 percent of the entire ballot—simply based on first-choice vote totals.

4. **Voter Outreach & Education – Voter Guide**

The cornerstone of the City's voter outreach and education campaign in 2013 was the Voter Guide: a 11" x 17" multi-page information pamphlet delivered to every household, targeting both registered and non-registered (but potentially eligible) voters. Each guide included:
- A map showing all precincts and location of each polling place and operating hours for Election Day;
- Instructions on how to mark an RCV ballot correctly, as well as high-level summary of RCV;
- A sample ballot customized to match the recipient's specific precinct based on residential address; and
- Details about voter assistance and other resources allowed under state law.

The Voter Guide was timed for delivery the week prior to Election Day. It served as a friendly reminder of the municipal election as well as some final educational messages about how to mark an RCV ballot correctly. The inclusion of the site-specific sample ballot ensured that all potential voters had the opportunity to preview their ballot before Election Day. The Elections & Voter Services Division received significant positive feedback on the Voter Information Guide, which was identified in surveys as the single most effective outreach tool in 2013. In fact, the post-election survey commissioned by the City of Minneapolis found that nearly two-thirds of all residents—consistent among those residents who did and did not vote—indicated the guide was the primary source of how they learned about RCV.

2013 chart		Original Ballot			Voter Intent		
Description	Scenario	1st Before	2nd Before	3rd Before	1st After	2nd After	3rd After
Over-vote	1	A/B	C	D	C	D	Blank
	2	A	B/C	D	A	D	Blank
	3	A	B	C/D	A	B	Blank
Repeat candidate	1 & 2	A	A	B	A	B	Blank
	1 & 3	A	B	A	A	B	Blank
	2 & 3	A	B	B	A	B	Blank
	1, 2, & 3	A	A	A	A	Blank	Blank
Skipped Ranking	1	Blank	A	B	A	B	Blank
	2	A	Blank	B	A	B	Blank
	3	A	B	Blank	A	B	Blank
	1 & 2	Blank	Blank	A	A	Blank	Blank
	1 & 3	Blank	A	Blank	A	Blank	Blank
	2 & 3	A	Blank	Blank	A	Blank	Blank
Under-vote	1, 2, & 3	Blank	Blank	Blank	Blank	Blank	Blank

When a skipped ranking, overvote or repeat candidate ranking is encountered on a ballot, that ballot shall count towards the highest continuing ranking that is not a skipped ranking, an overvote or repeat candidate ranking. If any ballot cannot be advanced because no further continuing candidates are ranked on that ballot, or because the only votes for further continuing candidates that are ranked on that ballot are either overvotes or repeat candidate rankings, the ballot shall not count towards any candidate in that round or in subsequent rounds for the office being counted. (2008-Or-028, § 1, 4-18-08; 2009-Or-102, § 4, 10-2-09; 2013-Or-055, § 6, 5-24-13)

MULTI-SEAT RCV – MINNEAPOLIS, MINNESOTA

This document provides a basic understanding of how votes are counted and how multiple candidates are elected at once using ranked choice voting. The reality is that while this page gives a good overview, the counting procedure is a little more complicated, and can be done in a few different ways. This page gives a more in-depth explanation of how votes are tabulated in Minneapolis, Minnesota.

DETERMINING THE THRESHOLD

The threshold, or "quota," of votes a candidate needs to be elected in a race is determined based on the number of seats to be filled in that race. This is determined by dividing the total number of valid ballots cast by the number of positions to be elected plus one, and then adding one to the result.

$$\left[\frac{\text{Number of ballots cast for office}}{\text{Number of seats} + 1} \right] + 1 = \text{Threshold}$$

In Minneapolis, the Board of Estimate and Taxation At-Large (two seats), and the Park and Recreation Board At-Large (three seats) are elected with multi-seat ranked choice voting. That means that the following seats have the following thresholds:

# of Seats	Office	Votes Needed
2 seats	At-Large Board of Estimate and Taxation	33⅓% plus one
3 seats	At-Large Park Board Commissioners	25% plus one

This means if 24,000 valid votes are cast for the Board of Estimate, the threshold will be 8,001. If 24,000 valid votes are cast for the Park and Recreation Board, the threshold will be 6,001.

ELECTING CANDIDATES

Candidates with no mathematical possibility of winning are defeated, and votes from those candidates are counted for the next ranked candidate on those ballots. When a candidate reaches the required threshold and is declared elected, that candidate's surplus votes over the threshold *are distributed proportionately to the next ranked candidates on the ballots of the elected candidate.* The process of defeating and electing candidates continues until the required number of candidates is elected.

BENEFITS FOR THE STATE OF KANSAS

PRIMARY ELECTION STATISTICS – JOHNSON COUNTY, KANSAS

2009 Spring Primary Election   Voter Turnout: 9.48%

Merriam Mayor

1st candidate   380 votes   35.28%

2nd candidate 325 votes   30.18%

3rd candidate 324.votes   30.08%

4th candidate 18 votes   4.46%

Roeland Park Mayor

1st candidate   200 votes   34.58%

2nd candidate 183 votes   31.61%

3rd candidate 180 votes   31.09%

4th candidate   16 votes   2.76%

2015 Spring Primary Election   Voter Turnout: 5.93%

Shawnee Mayor

1st candidate   1,274 votes   30.40%

2nd candidate 1,177 votes   28.08%

3rd candidate   972 votes   23.19%

4th candidate   768 votes   18.32%