

Maine League of Women Voters Concurrence Study Instant Runoff Voting

The Maine League of Women Voters is asking its members whether or not they concur with a study done by the Minnesota League of Women Voters on Alternative Voting Systems, endorsing the use of Instant Runoff Voting (also known as Ranked Choice Voting) as an acceptable alternative voting method. LWVME began looking at the issue of IRV four years ago and reviewed studies done by state Leagues in Minnesota, Washington, and California. Diane Russell, state legislator from Portland, gave a talk about IRV at our state convention in 2009 and Terry Bouricius, of FairVote, was a guest speaker at the Quad States workshop in May, 2010. As we move into the final phase of concurrence, LWVME will hold meetings in Portland, Brunswick, and Ellsworth to first inform members and to then ask for a vote. In addition to the information contained in this Concurrence Study, information on IRV is available on our web site at www.lwvme.org.

INTRODUCTION

The League of Women Voters believes that democratic government depends upon the informed and active participation of its citizens. The League believes in representative government and in the individual liberties established in the Constitution of the United States. The League works to promote an open governmental system that is representative, accountable and responsive. The League of Women Voters believes that every citizen should be protected in the right to vote.

The League has a history of working to improve our voting systems and believes that increased accessibility is essential to ensuring a representative electoral process and every citizen's right to vote. For example, the struggle for the National Voter Registration Act (NVRA) was long and arduous, but the League stayed the course. When President Clinton signed the National Voter Registration Act in May 1993, he gave one of the pens used to sign the historic legislation to the LWVUS president Becky Cain. He saluted the League and other pivotal supporters as "fighters for freedom" in the continuing effort to expand American democracy. The "motor-voter" bill enabled thousands of citizens to apply for voter registration at motor vehicle agencies automatically, as well as by mail and at public and private agencies that service the public.

PURPOSE OF THE STUDY

When the 2000 election exposed the many problems facing the election system, the League leaped into action. Bringing our coalition allies together, the League worked to ensure that key reforms were part of the congressional debate. With the League's special expertise, we argued for improved voting systems and machines, securities in electronic voting machines, provisional balloting and other safeguards, and improvements in voter registration systems, poll worker training and administration.

Presently, LWVUS does not have a position on alternative voting methods such as Instant Runoff Voting (also known as Ranked Choice Voting). However, eight state Leagues (MN, SC, CA, WA, MA, VT, AZ and FL) have conducted studies or otherwise

adopted positions on alternative voting methods, including positions in favor of IRV. In order for LWVME to participate in the debate and advocate on this proposed change in Maine's voting system, LWVME's State Board has initiated the process of determining whether it can come to concurrence with the Minnesota state League's position on IRV.

The purpose of this study is to provide background information about instant runoff voting for reference, discussion, and debate. It compares our current plurality method with IRV and includes: descriptions of the two voting methods; benefits as described by the methods' advocates; problems as described by critics; issues as seen by election officials, political scientists, mathematicians and political parties; and legal issues involved in changing election systems. The scope of the study is limited to single seat elections at the local or state level (such as mayor or governor).

PURPOSE OF THE CONCURRENCE MEETINGS

The purpose of these meetings is twofold: first, to provide an opportunity for League members to learn about the facts and issues involved in our current voting method and an alternative voting method; and secondly, to reach consensus on each of the questions being asked. From these results, the State Board will determine whether or not to concur with Minnesota's position and whether or not to endorse IRV as an acceptable alternative voting method.

SUPPLEMENTARY RESOURCE AVAILABLE FOR YOUR INFORMATION

The LWVME web page at <http://www.lwvme.org/IRV.html> includes a list of resources and "hands-on" sample ballots. We strongly encourage local League members to visit the site and experience completing a sample ballot using the IRV voting method. If you do not have access to the Internet, please phone the League at 207-622-0256 for more information. Sample ballots will also be available at our informational IRV meetings, as well as our subsequent concurrence meetings.

Alternative Voting Systems: Facts and Issues

INTRODUCTION

The 2000 Presidential election challenged Americans' complacency about the accuracy and fairness of our voting system as never before. With the outcome still in doubt three weeks after Election Day, the combination of a close race, multiple candidates, antiquated voting equipment, and confusing recount procedures created a perfect storm that left voters across the country frustrated and angry.

For the first time in many years, some started to question seriously the fundamental structure of a winner-take-all plurality election system. When only two major party candidates are on the ballot in an election using the plurality system, majority rule is not a concern. However, when three or more candidates are running, the winner might not have received a majority of the votes.

VOTING SYSTEMS

PLURALITY: AN UNRANKED VOTING SYSTEM

Maine uses the Plurality system in which each voter chooses a single candidate, and the candidate with the most votes wins. In races with three or more candidates, it is possible for a candidate to win with fewer than 50% of the votes; in other words, the winner can be elected by a minority of the voters. Recent examples of this include Maine's 2006 gubernatorial election where John Baldacci was re-elected with just 38% of the vote and the 2010 gubernatorial election where Paul LePage also won with only 38% of the vote.

The Plurality system originated in ancient Greece and Rome and evolved in England before the American Revolution. Outside the United States, the Plurality system is used in the United Kingdom and other former British colonies, such as Canada and India.¹

Although the U.S. Constitution sets out a complicated process for electing the president via the Electoral College which requires a majority vote of electors, it permits the states to determine their own election procedures for electors and for other federal and state offices.² The Maine Constitution and state statutes, therefore, not the U.S. Constitution, dictate how elections in Maine are conducted for presidential electors, for U.S. Congress, for governor, and for the Maine State Legislature. Any changes to our existing Plurality system might require modifying the Maine Constitution and/or these statutes. The section on legal issues later in this document discusses these statutes.

INSTANT RUNOFF VOTING (IRV): A RANKED VOTING SYSTEM

In Instant Runoff Voting (IRV), voters rank the candidates on the ballot, marking their first, second, and third choices, depending on how many candidates are in the race; however, a voter does not have to vote for more than one candidate. In round one, the first-choice votes are counted. If a candidate gets 50% + 1 of the votes, he or she is declared the winner. If no one has a majority, the counting goes to round two. The candidate with the lowest number of votes is eliminated. The votes cast for the eliminated candidate are then transferred (or moved) to the second choice listed on each ballot. If someone gets a majority, the election is over. If no one receives a majority, the counting goes to round three. All ballots are retallied, with each ballot counting as one vote for each voter's highest ranked candidate who has not been eliminated. This process of elimination and retabulation is continued until a majority winner is found. That majority winner will have been ranked by 50%+1 of the voters who ranked at least one non-eliminated candidate. There is no need for a separate runoff election, thus explaining the term *Instant Runoff Voting*.³

¹ J. O'Connor and E. F. Robertson, "The History of Voting," School of Mathematics and Statistics. University of St. Andrews, Scotland, http://www-history.mcs.st-andrews.ac.uk/Indexes/Hist_Topics_alph.html

² U. S. Constitution, Article 2, Section 1. "Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and Representatives to which the State may be entitled in the Congress. . . ."

³ "A Simple Guide to Instant Runoff Voting." What Is IRV? <http://www.lwvpasadenaarea.org/irv.html>

A simple example illustrates how IRV works. One hundred citizens are voting for the most architecturally unique city hall in Maine. The candidates are Portland City Hall, Augusta City Hall, and Bangor City Hall.

Round One

City Halls	First Choice	Second Choice
Portland	41	6 for Augusta 35 for Bangor
Augusta	40	10 for Bangor 30 for Portland
Bangor	19	15 for Portland 4 for Augusta

No courthouse has a majority, so the election goes to the next round. The lowest vote-getter, Bangor, is eliminated, and the 19 votes are redistributed—15 for Portland and 4 for Augusta.

Round Two

City Halls	First Choice	Second Choice
Portland	41+15	6 for Augusta 35 for Bangor
Augusta	40+ 4	10 for Bangor 30 for Portland
Bangor	19	15 for Portland 4 for Augusta

Now Portland has 41 + 15 votes or 56, and Augusta has 40 + 4 or 44. The Portland City Hall wins with the majority of the votes. For an example of a vote that requires a third round see http://www.youtube.com/watch?v=_5SLQXNpzsk (YouTube.com – MPR News: Instant Runoff Voting Explained).

Instant Runoff Voting is not a new concept: “The key to development of Instant Runoff Voting (IRV) was the invention of the single transferable vote (STV) in the 1850’s by Thomas Hare in England and Carl Andrae in Denmark. Instant Runoff Voting, using a preference ballot, was invented by W.R. Ware, a professor at Massachusetts Institute of Technology, around 1870.”⁴

Four states—Florida, Indiana, Maryland, and Minnesota—used variations of Instant Runoff Voting in primary elections as early as 1912. Ireland and Australia

⁴ “The History of Instant Runoff Voting,” Center for Voting and Democracy, http://www.fairvote.org/irv/vt_lite/history.htm

currently use IRV in national elections,⁵ and London uses it to elect its mayor.⁶ San Francisco began using IRV for its November, 2004 elections. And in 2010, North Carolina held the nation's first-ever statewide general election with IRV. In 2003, at least nineteen states, including Maine, introduced legislation to enact IRV, but the bills failed or were carried over in every instance.⁷ Portland, Maine will be electing its mayor with the IRV voting method starting in 2011.

Other organizations also use Instant Runoff Voting. The Academy of Motion Picture Arts and Sciences uses it to determine the finalists, and the American Political Science Association uses it to elect its president⁸

ISSUES

DETERMINING THE WILL OF THE PEOPLE: ARROW'S IMPOSSIBILITY THEOREM

In 1952 Kenneth Arrow won a Nobel Prize in part for proving that there is no such thing as a perfect voting system. He was trying to put together a set of minimal conditions that would consistently translate individual preferences into group preferences, but he found that this was impossible. In other words, there is no voting system that consistently meets Arrow's minimal criteria.⁹ This discovery startled mathematicians and political scientists who have been studying and debating Arrow's theorem ever since.¹⁰

Arrow's discovery, according to Harvard University government professors Kenneth Shepsle and Mark Bonchek, suggests that systems of combining individual votes into a group choice or winner is not as straightforward as it seems. No system is consistently fair when the number of voters is large, when their preferences are varied, or when more than two candidates are in the race. They observe that "even though each individual in the group has preferences that are consistent, . . . this need not be true of the group's preferences."¹¹ This explains why it is so difficult to identify the "true will" of the voter or the "Ideal Democratic Candidate." (See Appendix 1 for Condorcet's Paradox.)

Research also indicates that no fixed set of criteria for a "good" voting system exists. Citizens creating a new voting system or changing an old one must set priorities and make tradeoffs among a number of competing goals. Some might want to encourage third parties, some might want to measure the "will of the voters" as perfectly as possible, some might want to reduce factions, some might want a specific kind of representation, and so on.¹²

Instead of focusing on the criteria for a "good" voting system, this study discusses the issues most frequently raised by advocates for a particular system, those mentioned in

⁵ Ibid.

⁶ Hugh Muir, "Narrow Victory for Mayor Who Returned to the Fold," *The Guardian*, June 12, 2004, <http://www.fairvote.org/pr/global/country/londonmayor.htm>

⁷ "Election Reform Legislation," National Conference of State Legislatures. http://www.ncsl.org/programs/legman/elect/elections_search.cfm

⁸ "The History of Instant Runoff Voting."

⁹ Kenneth Shepsle and Mark Bonchek, *Analyzing Politics*, (New York: Norton, 1997), 67.

¹⁰ Ibid, 69.

¹¹ Ibid, 49.

¹² Reynolds and Reilly, *IDEA*, 9.

the literature of mathematics and political science,¹³ and those of specific relevance to Maine.

MAJORITY RULE

According to the proponents of alternative systems, the most important criterion for any single-winner voting system is that it produces a winner elected by a majority of voters. They point to statements such as that by Noah Webster, who wrote in 1787, “Hence the doctrine, that the opinions of a majority must give law to the whole State: a doctrine as universally received, as any intuitive truth.”¹⁴ Although the United States Constitution requires a majority of votes to elect the president in the Electoral College and to pass certain bills in Congress, it does not require the states to adhere to the principle of majority rule. Nevertheless, this doctrine is so deeply embedded in the minds of most citizens that they are often surprised to learn that a candidate can be elected by a minority of the voters; however, some people see no problem when a candidate wins an election with less than a majority of the votes.

Almost two hundred years after Webster’s affirmation of rule by the majority, the Vermont House of Representatives commissioned a study that endorsed Instant Runoff Voting for the state of Vermont. This commission stated that the Plurality voting system contains “a fundamental defect that violates the most basic precept of democracy: majority rule” because a candidate can be elected with fewer than 50% of the votes.¹⁵

Asserting that Instant Runoff Voting will solve this problem, the Center for Voting and Democracy says, “IRV advantages the majority, since it ensures that a minority of voters can never defeat a candidate supported by a majority.”¹⁶ The Vermont study adds that this “is the main attribute of IRV that prompts this Commission to recommend its adoption for all statewide elections.”¹⁷

Maine’s Constitution originally required that its Governor and State legislators be elected by a majority of votes. Maine’s Constitution has been amended at least three times by legislative resolve (in 1847, 1875 and 1880) to provide that the Governor, State Senators, and State Representatives, respectively, be elected by the “highest number” or “plurality” instead of “a majority” of votes. Advocates of IRV (Fairvote) point out that legislative intent at that time was to prevent the practice then in place, which allowed the Maine Legislature to determine the winners in elections where no candidate won by a majority. Those same advocates also point out that the ranked choice ballot (which

¹³ See the Vermont Commission to Study Instant Runoff Voting, <http://www.fairvote.org/irv/vermont/01broken.htm>, “Center for Voting and Democracy.” May 2001. <http://www.fairvote.org/irv/various1.htm>, “Technical Evaluation of Election Methods.” Election Methods Education and Research Group. <http://www.electionmethods.org/evaluation.html#CC>, Donald Saari, *Basic Geometry of Voting*, Berlin: Springer, 1995, 13, Dennis R. Thompson, *Just Elections*. (Chicago: University of Chicago Press, 2002), Andrew Reynolds and Ben Reilly, *The International IDEA Handbook of Electoral System Design*, (Stockholm: International Institute for Democracy and Electoral Assistance, 1997) and others mentioned in this study.

¹⁴ Noah Webster, “An Examination into the Leading Principles of the Federal Constitution,” Bernard Bailyn, ed, *The Debate on the Constitution, Part One: September 1787-1788*, (New York: Literary Classics of the United States, 1993), 130.

¹⁵ “IRV Promotes Majority Rule in Single-Seat Elections.” Final Report of the Vermont Commission to Study Instant Runoff Voting. (January 1999) Center for Voting and Democracy. <http://www.fairvote.org/irv/vermont/11simple.htm>

¹⁶ “Frequently Asked Questions about Instant Runoff Voting.” Center for Voting and Democracy. <http://www.fairvote.org/irv/faq.htm>

¹⁷ “IRV Promotes Majority Rule.”

would allow the voters to determine a majority winner) was being developed in Europe in the 1850s and was not widely known in America at the time this move from “majority” to “plurality” was being made.

Winning with a minority of votes is not a new occurrence. In seventeen presidential elections, including the election of 1860 won by Abraham Lincoln, the winner received fewer than 50% of the popular votes.¹⁸ One could argue that even though these candidates received less than a majority of the popular vote, they did receive a majority of votes in the Electoral College, thus not violating the principle of majority rule.

Maine has a long history of crowded gubernatorial fields. Most of the gubernatorial contests in Maine of the last 36 years have had three or more candidates on the ballot. Consider the results in recent decades: In 1974, James Longley was elected with 40 percent of the vote; in 1978, Joseph Brennan was elected with 48 percent; in 1986, John McKernan was elected with 40 percent; in 1990, Gov. McKernan was re-elected with 47 percent; in 1994, Angus King was elected with 35 percent; in 2002, John Baldacci was elected with 47 percent; and in 2006, Gov. Baldacci was re-elected with 38 percent. In the other years, the candidates won by more than 50 percent.¹⁹

Even though some believed that these elections did not measure the “true will” of the voters, few people thought they were unfair, given the rules set out by the Plurality voting system.

Since Maine’s Constitution calls for election of the governor (as well as other state and federal offices) by plurality vote, the implementation of IRV may be met by legal challenges calling for the further amendment of Maine’s Constitution, so as to allow election by majority rule.

“SINCERE” VS. STRATEGIC VOTING

Supporters of each of the voting systems discussed here believe that a voting system should enable citizens to “honestly vote according to their consciences.”²⁰ They claim that their particular system will promote “sincere” voting rather than strategic or tactical voting, which they consider “gaming” the system. They prefer a voting system that discourages people from voting for anyone but their “true favorite.”

Douglas Amy, professor at Mount Holyoke College in Massachusetts and author of *Real Choices/New Voices*, explains the importance of voting sincerely: “To produce a true mandate, voters must be voting sincerely—that is, they must be casting a vote for a party that truly represents their own specific ideological and policy preferences.”²¹ If in 2000, for example, one’s true favorite was Ralph Nader, some would say that voting for anyone else would be insincere.²²

Proponents of alternative voting systems criticize the Plurality voting system, in particular, for encouraging strategic voting, saying that people who want to vote for third party candidates may feel that they must settle for the “lesser of two evils” by voting for their second choice. They fear that a sincere vote for a minor party candidate may lead to

¹⁸ “U.S. Presidential Election, 2000.” Wikipedia.

http://en.wikipedia.org/wiki/U.S._presidential_election_2000

¹⁹ “A Better Way to Vote”, Bangor Daily News, November 5, 2010

²⁰ “IRV Encourages Sincere Voting Rather Than Disingenuous Tactical Voting,” Final Report of the Vermont Commission to Study Instant Runoff Voting

²¹ Douglas Amy, *Real Choices/New Voices*, (New York: Columbia University Press, 2002), 199.

²² “Why Approval Voting Should Be Approved Now,” ElectionMethods.org.
<http://www.electionmethods.org/approved.html>

the election of a candidate they dislike. The minor party candidate may become a “spoiler” in the election, contributing to the election of a candidate not supported by the majority of the voters.

Eliminating the “lesser of two evils” choice is one of the main advantages of the Instant Runoff Voting system, according to the Center for Voting and Democracy: “Voters have every incentive to vote for their favorite candidate rather than the ‘lesser of two evils’ because their ballot can still count toward a winner if their first choice loses.”²³

“WASTED” VOTES

In voting system terminology, “wasted” votes are those which do not go towards the election of any candidates. Whether or not voters believe that their vote has been “wasted” depends on their definition of the term. If voting for a candidate who loses means one’s vote is wasted, then as many as 49% of the voters will feel that way in any election that requires a majority of the votes to win. Most often the term is used to mean votes for a third party candidate who has little chance of winning.²⁴

Some people might choose to vote for a candidate they know will lose in order to lodge a protest or stand on principle. A strong third party showing may, for example, cause major parties to incorporate new issues in their platforms. Dennis Thompson, Harvard professor and author of *Just Elections*, says that “protest votes, in sufficient numbers, can send a powerful message and can have an effect on campaigns and elections in the future.”²⁵ Issues once deemed immune to legislative change were first proposed by third parties: abolition of slavery, minimum wage, women’s right to vote, social security, end to child labor, and the 40-hour workweek. They are now accepted laws of the land.²⁶

Advocates of Instant Runoff Voting assert that reducing the number of “wasted” votes is one of the advantages of IRV. According to Ted Halstead and Michael Lind, voters realize that if they vote for a third party candidate in the current Plurality system, their vote will probably be wasted. The authors explain that voting for a third party so easily backfires that voters in a Plurality system “are offered a stark choice between voting for one of two major national parties or not voting at all. Increasing numbers of Americans have chosen the latter option.”²⁷

The Vermont Commission points out that under Instant Runoff Voting, when a first choice candidate is eliminated, the vote is reassigned to the second choice candidate that the voter designated, reducing the chance that the voter’s vote will be “wasted.”²⁸

VOTER TURNOUT

Many people are very concerned about the issue of low voter turnout, blaming the Plurality system. Some speculate that changing to an alternative election system will bring more voters to the polls, but this claim is difficult to verify, according to a study by

²³ “Instant Runoff Voting: A Fairer Way to Conduct Single Seat Elections,” Center for Voting and Democracy. http://www.fairvote.org/irv/a_fairer_way.htm

²⁴ Reynolds and Reilly, IDEA, 10.

²⁵ Dennis R. Thompson, *Just Elections*, (Chicago: University of Chicago Press, 2002), 70.

²⁶ “Were These Wasted Votes?” The Green Party, <http://www.txgreens.org/resources/gpinfo/handbill.pdf>

²⁷ Ted Halstead and Michael Lind, *The Radical Center: The Future of American Politics*, (New York: Doubleday, 2001), 113.

²⁸ “IRV Reduces the Number of Wasted Votes.” Final Report of the Vermont Commission to Study Instant Runoff Voting.

political scientists about the effects of voting systems on turnout. The authors found that factors such as cultural differences, registration barriers, weak parties, non-competitive races, the perception that one's vote doesn't count, and so on may depress voter turnout. State-to-state comparisons of turnout are difficult as well because states have different ways of tracking turnout, and so far no significant history of alternative voting systems exists in this country for which state-to-state comparisons would be possible.²⁹

Despite these problems, the study found that changing to an alternative voting system increased voter turnout by about five percentage points. The authors examined the effect of cumulative voting (see Glossary) on turnout in about 100 communities across the United States, mostly in Texas, some in Alabama, New Mexico, and a scattering of others, including one in South Dakota.³⁰ One of the authors of the study, Shaun Bowler of University of California Riverside, said, "The best we can tell is that changing the electoral system will boost turnout—probably somewhere in the low single digits. It's a consistent finding. So far as I know all studies show an increase is likely. None show a decrease."³¹

The Vermont Commission speculates that IRV would increase turnout by pointing to mayoral elections in Ann Arbor, Michigan, in the 1970's that were conducted using IRV. When an election had only two credible contenders, voter turnout was low. When a third party candidate was added, voter turnout jumped 28%. It adds that other nations that use IRV have far higher levels of voter participation than Vermont does, but other factors may be responsible for this as well, such as the day (or days) of the week on which elections are held or whether voting is required by law.³²

INTENSITY VS. BREADTH OF SUPPORT FOR A CANDIDATE: FINDING A COMPROMISE CANDIDATE

Intensity of support refers to how strongly a voter supports or opposes a candidate. Those who are passionate are often mobilized and highly motivated to vote. On the other hand, breadth of support indicates a candidate who can appeal to a wide variety of people across opinions and party lines. In alternative systems, candidates have an incentive to appeal to supporters of other candidates as their second or third choice.

Proponents of preference voting systems, ones in which the voters rank the candidates, believe that an election system should balance the intensity of a candidate's support with the breadth of his or her support. Going too far in either direction can call into question the legitimacy of the winner. According to Samuel Merrill III in "Making Multicandidate Elections More Democratic," it is vital that the voters perceive the winner as the one preferred by the majority of the electorate: "The belief that a loser is preferred by a majority of the electorate to the winner or enjoys greater intensity of support can call into question that legitimacy."³³

²⁹ Shaun Bowler, University of California Riverside, David Brockington, Universiteit Twente, Todd Donovan, Western Washington University, "Election Systems and Voter Turnout: Experiments in the United States." Paper presented at 1997 American Political Association Meeting. <http://www.fairvote.org/vra/donovan.pdf>.

³⁰ Bowler, et al., "Election Systems and Voter Turnout."

³¹ Shaun Bowler, e-mail message to Tony Solgard, Oct. 29, 2003.

³² "IRV Could Increase Voter Participation," Final Report of the Vermont Commission to Study Instant Runoff Voting.

³³ Samuel Merrill III, *Making Multicandidate Elections More Democratic*, (Princeton, N.J.: Princeton University Press), 7.

Critics of the Plurality voting system say that it measures only the amount of intense, core support for a candidate, and breadth of support is irrelevant, permitting single-interest groups to take over a political party in races with more than three candidates.³⁴ Instant Runoff Voting supporters believe that their system offers “a compromise between two extremes: it requires sufficient core support to avoid elimination and enough broad support to win a majority of the votes.”³⁵

Instant Runoff Voting does not always offer a compromise, say its opponents. It can prevent the “spoiler” effect in races in which the minor parties have little core support; however, “as soon as one of those minor parties gains power, its supporters vote for it at the risk of hurting their own cause, just as in the current plurality system.”³⁶

Proponents of IRV acknowledge that in a three-way race, a compromise candidate can be eliminated and an extremist elected. They present this example in an article that discusses the flaws in a wide range of voting systems including the two reviewed in this study: two extreme candidates have strong core support, neither can appeal to a majority, and a moderate candidate has weak core support but is preferred by a majority as a compromise over the other two candidates.

<u>Candidate</u>	<u>Support</u>
Jones	45%
Marvin (Moderate)	15%
Smith	40%

Under IRV, the moderate candidate is eliminated first, and one of the extremists is elected.”³⁷ Proponents of IRV point out, however, that IRV “generally does a better job of finding the true compromise candidate than either plurality or two-round runoff elections. In the example just cited, an extremist candidate would also be elected under the plurality method.

MONOTONICITY

Instant Runoff Voting has a mathematical problem—it does not pass the monotonicity test. Mathematicians define monotonicity as follows: “With the relative order or rating of the other candidates unchanged, voting a candidate higher should never cause the candidate to lose, nor should voting a candidate lower ever cause the candidate to win.” Voting your choice should only help your candidate.³⁸ In certain very specific circumstances, however, such as an extremely close three-way race, more first-place votes can hurt, rather than help, a candidate. By raising the ranking of a candidate, voters may actually cause that candidate to lose.³⁹ (For an example of how this might happen, see Appendix 2.)

The Center for Voting and Democracy, however, defends the IRV system against the charge that non-monotonicity makes it unacceptable. An article titled “No System Is

³⁴ “Alternative Single Winner Systems.”

³⁵ Ibid.

³⁶ “The Problem with Instant Runoff Voting,” Election Methods.org.
<http://www.electionmethods.org/IRVproblems.htm>

³⁷ “Perfect Examples: Flaws with Voting Systems, Center for Voting and Democracy, July 2002,
<http://www.fairvote.org/pr/perfectexamples.htm>

³⁸ Lynn Arthur Steen, Professor of Mathematics, St. Olaf College, comments on draft, June 6, 2004.

³⁹ Peter Tannenbaum and Robert Arnold. *Excursions in Modern Mathematics*. 4th ed. (Upper Saddle River, NJ: Prentice Hall, 2001), 13.

Perfect” reminds readers that Arrow’s Impossibility Theorem proves that every system has problems and that the problem of non-monotonicity exists only in theory, not in the real world: “If the theoretical problems with choice voting occurred even as frequently as 0.1% of the time, there would be many such examples, but there are none.”⁴⁰ Samuel Merrill says that it would be relatively impossible in an election with large numbers of voters to use non-monotonicity to a candidate’s advantage: “This strategy, if it is possible at all, is at once difficult to design and implausible to implement in a large electorate.”⁴¹

ADMINISTRATIVE ISSUES

VOTER EDUCATION

The task of educating voters about a fundamental change in voting method appears difficult but not impossible. Every election confuses a small number of voters, even though the voting system has been in place for over 200 years. Citizens seek answers from election officials - the Maine Secretary of State’s Office - or they simply do not vote. It would take a well-planned and adequately funded campaign to reach all of the voters sufficiently in advance of the election to teach them how to fill out their new IRV ballots. It would be absolutely critical for voters to fully understand the system by which someone is elected. It would discourage voter participation if they didn’t understand the method.

VOTING EQUIPMENT

If IRV were implemented in Maine the optical scan equipment currently in use would need new programming software in order to be able to read the new ballots. Of greater concern is the fact that currently 387 of the 503 municipalities (77%) in Maine use hand-counted paper ballots to conduct their elections.⁴² “Without significant resources to purchase a substantial amount of vote-counting equipment, IRV could involve a time-consuming and costly hand count.”⁴³

However, in a report looking at the possibility of IRV in Maine, Fair Vote contends that IRV is feasible in Maine. “The best option may be to have voters use an optical scan ballot and tally it either at the precinct or at a central location. Among potential advantages for Maine, this option does not require hand-counting towns to buy any new voting equipment.”⁴⁴

ERRORS

Election officials said that a change in election system would inevitably produce some degree of administrative errors, at least in the beginning, but a paper trail for all ballots could allow recounts if necessary. To prevent errors, the League of Women

⁴⁰ “No System Is Perfect.” Center for Voting and Democracy. July 2002.
<http://www.fairvote.org/pr/perfectsystem.htm>

⁴¹ Merrill, 75.

⁴² “Report on the Feasibility of Instant Runoff Voting”, prepared by Secretary of State Matthew Dunlap, January 2005.

⁴³ Ibid

⁴⁴ “Options for Implementing Instant Runoff Voting in Maine”, Fair Vote, December 2004.
http://archive.fairvote.org/media/irv/MaineIRV_December2004.pdf

Voters “supports the implementation of voting systems and procedures that are secure, accurate, recountable, and accessible,” regardless of the voting system or equipment that is adopted.⁴⁵ In Maine, all voting places use either optical scan ballots or paper ballots, both of which create a paper trail.

POLITICAL ISSUES

INTRODUCTION: POLITICAL CONTEXT

Accounts from other states as well as experience in Maine suggest that politics affects attitudes toward changing the voting system. Parties that benefit from the current system often do not want to alter it, and parties that have lost, particularly third parties, are often very interested in changing the system. For example, in the 1990 election for governor in Alaska, the vote was split between the Republican and the Independence Party candidates, permitting the Democratic candidate to win with 42 percent of the vote. This election prompted Republicans to support an initiative to create Instant Runoff Voting in Alaska.⁴⁶ The situation was reversed in a 1998 New Mexico election for a Congressional seat, inspiring the Democrats to introduce a bill to amend New Mexico’s Constitution to permit Instant Runoff Voting and require that a candidate win by a majority of the votes.⁴⁷

Over the past ten years, bills to establish instant runoff voting have been introduced into the Maine legislature every session. Co-sponsors of these bills have included Democrats, Republicans, and Independents from Maine’s cities as well as rural areas. The Green Party has been a strong supporter of IRV and for years has encouraged their members to contact their legislators and ask them to support IRV.

The IRV bills were opposed by the Maine Municipal Association, which represents cities and towns, and by the Maine Town and City Clerks Association. Both groups believe the proposal would confuse voters, cause municipalities to spend money to reprogram their ballot-counting machines, and make the job of hand-counting ballots even more daunting.

In 2004, the Legislature passed a resolution instructing the Secretary of State to study the feasibility of instant runoff voting in Maine. The study found that the state could transition to this new system, but determined that the change would be costly and would create challenges for local election officials.

Of the instant runoff bills introduced in the years after the Secretary of State’s report was issued, two were killed in committee with a unanimous Ought Not to Pass vote. In 2009, the Committee issued a divided report, 8-5 Ought Not to Pass. The bill ultimately died in the House. (See Appendix 3 for a closer look at the IRV bills introduced over the past ten years.)

SUMMARY

VOTING SYSTEMS

⁴⁵ Citizen’s Right to Vote Resolution, adopted at 46th LWVUS National Convention, June, 2004.

⁴⁶ Mary Pemberton, “IRV to Appear on Ballot in Alaska,” The Associated Press, Oct. 27, 2000, <http://www.fairvote.org/irv/alaska.htm>

⁴⁷ “The Problem IRV Solves,” Center for Voting and Democracy, http://www.fairvote.org/irv/vt_lite/history.htm

Each of the two voting systems in the study, plurality and IRV, raises issues that vary depending on what people value and what they want to accomplish. This list summarizes the most frequently cited pro and con statements made regarding each system.

Plurality Voting System (Voters select one candidate; candidate with most votes wins)

- Is easy for voters to understand
- Preserves tradition
- Requires no legislative change
- Does not ensure a majority winner when more than two candidates are running
- Votes for third party candidates may be “wasted”
- Is vulnerable to “spoiler” candidates
- Is vulnerable to manipulation

Instant Runoff Voting System (Voters rank candidates; votes for candidate with fewest first choice votes are redistributed according to their second choices, etc. and subsequent choices until one candidate achieves a majority)

- Ensures a majority winner
- Allows voters to express preferences among candidates
- Eliminates problems of spoiler candidates knocking off major candidates
- Eliminates need for run-off elections
- Promotes civility in campaigns
- Minimizes “strategic” voting
- May elect a candidate with a broader appeal across the political spectrum
- May be misunderstood by some voters
- Does not meet mathematical requirement for monotonicity
- May elect a candidate with low intensity of support

APPENDIX 1: CONDORCET’S PARADOX

A mathematics text⁴⁸ provides an example of Condorcet’s voting paradox that shows why it is so difficult to identify the “true will of the people”: “In general, the word paradox is applied whenever there is a situation in which apparently logical reasoning leads to an outcome that seems impossible. . . .” Condorcet considered the following set of three preference lists and found that they indeed lead to a situation that seems paradoxical:

Rank	Number of voters (3)		
First	A	B	C
Second	B	C	A
Third	C	A	B

The text continues, “If we view society as being broken down into thirds, with one-third holding each of Condorcet’s preference lists, then society certainly seems to favor A to B (two-thirds to one-third) and B to C (again, two-thirds to one-third). Thus, we would expect society to prefer A to C. That is, we would expect the relation of social

⁴⁸ Garfunkel, For All Practical Purposes, 422-423.

preference to be *transitive*: If A is ‘better than’ B, and B is ‘better than’ C, then surely A is ‘better than’ C. But exactly the opposite is true. Society not only fails to prefer A to C but, in fact, rather strongly prefers C to A, (i.e., by a two-thirds to one-third margin)! With, say, 10 alternatives, a similar phenomenon can occur with ‘two-thirds’ replaced by 90%.”

“That fact that two-thirds of society can prefer A to B, two-thirds prefer B to C, and two-thirds C to A is known as Condorcet’s voting paradox”.

APPENDIX 2: MONOTONICITY

An example from a math text helps explain this issue. [In the original, the term *plurality-with-elimination* was used for Instant Runoff Voting.] “Three cities, Athens (A), Babylon (B), and Carthage (C) are competing to host the next Summer Olympic Games. The final decision is made by a secret vote of the 29 members of the Executive Council of the International Olympic Committee, and the winner is chosen by the Instant Runoff system. Two days before the actual election, a straw vote is conducted by the Executive Council just to see how things stand. The results of the straw poll are shown in Table 1.

Table 1: Preference Schedule in Straw Vote Two Days before the Actual Election

Number of Voters	7	8	10	4
1st choice	A	B	C	A
2nd choice	B	C	A	C
3rd choice	C	A	B	B

“The results of the straw vote are as follows: In the first round Athens has 11 votes, Babylon has 8, and Carthage has 10, which means that Babylon is eliminated first. In the second round, Babylon’s 8 votes go to Carthage, so Carthage ends up with 18 votes, more than enough to lock up the election.

“Although the results of the straw poll are supposed to be secret, the word gets out that unless some of the voters turn against Carthage, Carthage is going to win the election. Because everybody loves a winner, what ends up happening in the actual election is that even more first-place votes are cast for Carthage than in the straw poll. Specifically, the four voters in the last column of Table 1 decide as a block to switch their first-place votes from Athens to Carthage. Surely this is just the frosting on the cake for Carthage, but to be sure we recheck the results of the election.

Table 2 shows the preference schedule for the actual election. Table 2 is the result of switching A and C in the last column of Table 1 and combining columns 3 and 4 (they are now the same) into a single column.

Table 2: Preference Schedule for the Actual Election

Number of Voters	7	8	14
1st choice	A	B	C
2nd choice	B	C	A
3rd choice	C	A	B

“When we apply the Instant Runoff system to Table 2, Athens (with 7 first-place votes) is eliminated first, and the 7 votes originally going to Athens now go to Babylon, giving it

15 votes *and the win!* How could this happen? How could Carthage lose an election it had locked up simply because some voters moved Carthage from second to first choice? To the people of Carthage this was surely the result of an evil Babylonian plot, but double-checking the figures makes it clear that everything is on the up and up—Carthage is just the victim of a quirk in the Instant Runoff system: The possibility that you can actually do worse by doing better! In the language of voting theory this is known as a *violation of the monotonicity criterion.*⁴⁹

APPENDIX 3: MAINE IRV BILLS

2009 - LD 1344 Resolve to Authorize a Pilot Project on Ranked Choice Voting

Sponsor – Rep. Diane Russell, D-Portland
Co-Sponsors – Sen. Justin Alford D-Cumberland County
Rep. Stacey Fitts, R-Pittsfield
Rep. Adam Goode, D-Bangor
Rep. Jon Hinck D-Portland
Rep. Gary Knight, R-Livermore Falls
Rep. Bruce MacDonald, D-Boothbay
Rep. Andrew O'Brien, D-Lincolntonville
Speaker Hannah Pingree, D-North Haven
Rep. Pamela Trinward, D-Waterville

Bill voted 8-5 Ought Not to Pass by Committee on Legal and Veterans Affairs. Voting Ought to Pass were – Senator Nancy Sullivan, D-York, Rep. Pamela Trinward, D-Waterville, Rep. Alexander Cornell Du Houx, D-Brunswick, Rep. Diane Russell, D-Portland, Rep. John Tuttle, D-Sanford

2007 – LD 585 An Act to Establish Instant Run-off Voting for Gubernatorial Races

Sponsor – Rep. Jon Hinck, D-Portland
Co-Sponsors – Rep. Seth Berry, D-Bowdoinham
Rep. Kathleen Chase, R-Wells
Rep. Robert Crosthwaite, R-Ellsworth
Rep. Gary Knight, R-Livermore Falls
Senator Joseph Perry, D-Penobscot County
Rep. Wendy Pieh, D-Bremen
Rep. John Robinson, R-Raymond
Rep. Thomas Saviello, I-Wilton
Senator Ethan Strimling, D-Cumberland County

Voted Unanimous Ought Not to Pass

2005 – LD 265 – An Act to Establish Instant Run-off Voting

Sponsor – Sen. Ethan Strimling, D-Cumberland County
Co-Sponsors - Sen. Michael Brennan, D-Cumberland County
Rep. Glenn Cummings, D-Portland
Sen. Dennis Damon, D-Hancock
Rep. Ben Dudley, D-Portland

⁴⁹ Tannenbaum, *Excursions in Modern Mathematics*, 12-13.

Rep. Charles Fisher, D-Brewer
Rep. Boyd Marley, D-Portland
Sen. Elizabeth Mitchell, D-Kennebec County
Rep. John Patrick, D-Rumford
Rep. Hannah Pingree, D-North Haven

Voted Unanimous Ought Not to Pass by Committee of Legal and Veterans Affairs

2003 – LD 212 An Act to Establish Instant Run-off Voting

Sponsor Rep. Thomas Bull, D-Freeport
Co-sponsors, President Bev Daggett, D- Kennebec County
Rep. Ben Dudley, D-Portland
Rep. Theodore Koffman, D-Bar Harbor
Rep. Linda McKee, D-Wayne
Rep. Christopher O’Neil, D-Saco
Rep. Hannah Pingree, D-North Haven
Rep. John Richardson, D-Brunswick
Senator Deb Simpson, D-Androscoggin County
Senator Ethan Strimling, D-Cumberland County
Rep. Joanne Twomey, D-Biddeford

Resolve, Directing the Secretary of State to Study the Feasibility of Instant Run-off
Voting – passed 2004

**2001 – LD 1714 An Act Relating to the Election of Candidates by the Instant Runoff
Voting Method**

Sponsor – Rep. Joanne Twomey, D-Biddeford
Co-Sponsors, Rep. Tom Bull, D-Freeport
Rep. Elaine Fuller, D-Manchester
Rep. Susan Hawes, D-Standish
Rep. Monica McGlocklin, D-Embden
Rep. Stavros Medros, R-Lewiston
Rep. John Michael, I-Auburn
Rep. Charles Mitchell, D-Vassalboro
Rep. Paul Volenik, D-Brooklin

Voted Ought Not to Pass by Committee on Legal and Veterans Affairs