



# Alternate Voting Processes Study

## *Background Information*

PREPARED FOR LEAGUE OF WOMEN VOTERS OF FLORIDA BY THE  
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## Alternative Voting Systems

### Facts and Issues: Part IV

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*Here continues information about various voting systems for the LWVF study adopted in May 2005. Parts 1 through 6 are from the LWV of Minnesota study of 2004 when they adopted a position on the subject. Subsequent parts will deal with Florida's voting systems. We thank LWVMN Education Fund for permission to reprint this report.*

## Intensity vs. Breadth of Support for a Candidate:

### Finding a Compromise Candidate

**I**ntensity 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 Multi-candidate 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."<sup>80</sup>

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.<sup>81</sup> 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."<sup>82</sup>

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."<sup>83</sup>

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 all of the voting systems in this study; they point out, however, that IRV "generally does a better job of finding the true compromise candidate than either plurality or two-round runoff elections: 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.”<sup>84</sup>

IRV advocates criticize Approval Voting because it measures only “whether or not a candidate is acceptable to the voter; it does not distinguish between a candidate who is intensely liked — a first choice — and those who are more weakly approved of — second and lower choices.”<sup>85</sup>

They add that “the adoption of Approval Voting could cause the defeat of a candidate who was the favorite of 51 percent of the voters by a candidate who was merely acceptable to 75 percent of the voters.” They speculate that if a candidate who is the first choice of 51 percent of the voters loses to someone who is the second choice of 75 percent of the voters, then the Approval Voting system “would likely be repealed.”<sup>86</sup> See sidebar for example.

Approval Voting system champions believe that the one with the broadest appeal is also the strongest, minimizing the importance of intensity of support. They explain ways that both the Plurality system and the Instant Runoff Voting system can produce a winner who is not supported by the majority of voters: Under Approval Voting, by contrast, it would be the candidate with the greatest overall support — the one most widely approved of — who would win.”<sup>88</sup>

Others point out that intensity and breadth of support are descriptive concepts, too subjective to measure. Lynn Arthur Steen, professor of mathematics at St. Olaf College, Northfield, Minnesota, believes that intensity and breadth of support are not useful ways to compare different voting systems because they cannot be measured objectively.<sup>89</sup>

## Legality of Alternative Voting Systems

No consensus exists about whether it is legal for Minnesotans to use alternative voting systems in state and local elections. Two questions are being debated:

## Cherchez La Femme Association of Female Private Investigators

An adapted scenario shows how Approval Voting might allow a candidate with strong majority support to lose in an election with 100 voters. The structure of this scenario was presented by backers of Instant Runoff Voting to show why IRV is superior to Approval voting. Three women private detectives are running for president of Cherchez La Femme, an association of female private investigators. J. Marple has the genteel lady detective vote, K. Millhone attracts quirky free-spirits, and V. I. Warshawski appeals to the feminists. Under plurality voting, Marple is the favorite choice of 65 voters, Millhone is preferred by 25, and Warshawski is liked by only 10. Marple is the unambiguous winner, and Warshawski is a distant third. Marple would also win using the Instant Runoff system.

Under Approval Voting however, many genteel lady detectives might approve of Warshawski as well as Marple, being secretly attracted to Warshawski’s feminist philosophy. But since there is no way to say that they like Marple better than Warshawski, Marple can lose. The final count might give 70 votes to Marple. 35 votes to Millhone, and 75 votes to Warshawski, who would win the election and become the new president of Cherchez La Femme.<sup>87</sup>

- Would any of the alternative voting systems under consideration require a constitutional amendment?

- What statutory changes, if any would be needed to adopt a constitutional voting system in various jurisdictions, such as cities, school districts, counties, or state government?

## Constitutional Amendment

The question of constitutionality was raised in Minneapolis during a 2001 petition drive to amend the city charter. The petition would have asked the voters whether the city should adopt Single Transferable Vote, in this case Instant Runoff Voting, for Minneapolis elections. The charter commission and

its attorney recommended against the proposed amendment, basing its recommendation on a 1915 Minnesota Supreme Court ruling. The petition drive failed to collect the required signatures and the issue was dropped.

Tony Solgård and Paul Landskroener, advocates for IRV, examined the constitutional question and believe that the commission had misread the Court case.<sup>90</sup> In *Brown v. Smallwood*<sup>91</sup> an alternative voting system established in Duluth's 1912 charter was declared unconstitutional. However, Solgård and Landskroener claim that the system in question was not Single Transferable Vote/Instant Runoff Voting, but another preferential voting system called "the Bucklin method." They list the constitutional tests offered by the Court, contrast Single Transferable Vote from Bucklin with regard to those tests, and conclude that Single Transferable Vote/Instant Runoff voting passes constitutional muster. (See Appendix 3 [page 11] for a discussion of the Court's decision, its test for constitutionality, and a chart evaluating the constitutionality of each voting system in the study.)

### Statutory Change

The debate over this question is exacerbated by multiple and sometimes conflicting statutes, as exemplified by the experience of Roseville, Minnesota. The city of Roseville raised the question of whether statutory changes are needed to authorize use of an alternative voting system in 2001 when the city was considering adopting a charter and becoming a home rule city. A proposal was made to the city's Charter Commission to adopt Instant Runoff Voting for city elections. The Commission's legal counsel advised that it was not authorized by Minnesota statutes.<sup>92</sup>

At that time Minnesota Statutes Section 205.185, subdivision 2, read: "A municipal election shall be by secret ballot and shall be held and returns made in the manner provided for the state general election, so far as practicable." The city's counsel found that the state general election is governed by Section 204B.35 to 204B.44, which prescribed a ballot format and instructions to the voters that would not permit a ranked ballot such as the one necessary for Instant Runoff Voting.

However, Solgård and Landskroener also examined this question and found that several places in the election statutes allow exceptions where otherwise provided by law. (See Appendix 4 [page 11] for a detailed discussion of these exceptions in the election statutes)

### 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.<sup>94</sup> 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. Voters, by raising the ranking of a candidate, may actually cause that candidate to lose.<sup>95</sup> (For an example of how this might happen, see Appendix 5 [page 12].)

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 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 percent of the time, there would be many such examples, but there are none."<sup>96</sup> 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."<sup>96</sup>

### Administrative Issues

#### Voter Education

The League of Women Voters interviewed current and former local and state election officials to see how a change in election systems would affect election administration. These officials had similar concerns.

The task of educating voters about a fundamental change in voting method appeared difficult but not impossible to almost all of the election officials and administrators interviewed. They mentioned that 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 hot lines, election judges, and the Minnesota Secretary of State's Office — or they simply do not vote. They agreed that 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 ballots. Secretary of State Mary Kiffmeyer, whose office would bear the primary responsibility for voter education, showed more concern, asking, "How could we explain a new system if no one can understand what we have now?"<sup>98</sup>

Elaine Voss, former Deputy Secretary of State, indicated that 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."<sup>99</sup>

## Training Election Judges

Local election officials were also concerned about the costs of training election judges so they would understand any new election system. Local governments normally pay for training judges, so at least initially they would need state funding for the retraining. Some felt the burden would be greatest in precincts that count the votes by hand.

## Voting Equipment

Several local and state officials in Minnesota felt that changing to any of the alternative voting systems in this study would require upgrading the software in the voting machines to meet new voting procedures. This is not a problem, said Ramsey County Election Manager Joe Mansky, because software used in voting machines can be programmed to tabulate the votes regardless of which election system is used. He said that with the right computer software, "we can count any ballot you want."<sup>100</sup> Although some expense is involved, several election officials responded that a software upgrade would not necessarily be a significant cost burden for local governments.

Some of the smaller, township precincts in Minnesota do not have voting machines and currently require a hand count, and this process wouldn't change with an alternative system. No complicated formulas would be applied to ballots at the precinct level. Election judges would simply report the vote totals to a central location.<sup>101</sup>

Election administrators were also concerned about having more than one type of election system on the same ballot. They wondered for example, what if IRV were used to elect the mayor but Plurality was used for the city council or school board. Voting machine vendors at a conference for county election officials said that their machines could be programmed to allow a mixed type of ballot without a significant cost increase.<sup>102</sup>

It is possible that more complicated vote tabulation involved in alternative methods could slow down the process of reporting the outcome of the election.

## 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 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.<sup>103</sup>

## Help America Vote Act (HAVA)

The 2002 Help America Vote Act (HAVA) provides \$3.9-billion to improve elections nationwide. The first stream of money has brought \$5.5-million to Minnesota to modify the statewide voter registration system and to upgrade voting equipment for voters with disabilities. Another \$41.5-million to upgrade equipment for all voters could come to Minnesota in the next three years. Secretary of State Mary Kiffmeyer hopes to phase in the new voting equipment as the money becomes available. This equipment would make it possible to use alternative systems in all precincts to tabulate votes.<sup>104</sup> HAVA addresses other important election issues as well, including payments to states for election administration improvements and voting rights. These are important but beyond the scope of this study.

### Political Issues

#### Introduction Political Context

Accounts from other states as well as experience in Minnesota 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.<sup>105</sup> 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.<sup>106</sup>

The League of Women Voters sought comments from leaders of Minnesota's four main political parties about alternative voting systems.

#### Democratic-Farmer-Labor Party (DFL)

Bill Amberg, communications and research director for the DFL, said that the party did not have an official opinion on any of the alternative voting systems but that "anything we can do to make our democracy stronger is a worthwhile endeavor."<sup>107</sup>

In 2003, several DFL representatives and senators sponsored bills in the Minnesota House and Senate to permit Instant Runoff Voting, suggesting that some Democrats are leaning toward alternative voting systems. These bills were much broader in scope than the one introduced in 2004, which applied to a one-time election in the city of Roseville and had bipartisan support. The Roseville bill passed in the Senate with 33 Democrats, 4 Republicans, and 1 Independent in favor and 26 Republicans opposed.<sup>108</sup> The bill failed in the House of Representatives with 48 Democrats and 6 Republicans in favor and 73 Republicans and 5 Democrats opposed.<sup>109</sup>

#### Green Party

Nick Raleigh, chair of the Green Party, states that Instant Runoff Voting is called for in the Green Party's Platform. The party uses IRV for its internal elections. He says that ranked ballots allow voters to express their political will in a more comprehensive way by indicating that "if my favorite candidate doesn't win, then I'd prefer to see so-and-so win." He feels that the "spoiler argument" that is used against minor party candidates "serves to silence political dialogue and to muffle the support of salient viewpoints expressed by the smaller political parties."

As for changing election systems in Minnesota, he believes that it is important for municipalities to begin using alternative systems in their local elections. This would allow voters "to become accustomed to and gain confidence in [them]. The final step is for state law to be changed so that all state elections are conducted via the preferred alternative voting system. If a new system were introduced at the state level first, I fear there'd be a rebellion against the unknown"<sup>110</sup>

#### Independence Party

Jim Moore, chair of the Independence Party, believes that IRV and other options are "popular but not much [is] pushing them." He says that IRV allows a candidate "with great ideas" but outside the two entrenched parties to compete and that IRV alleviates the problem of "wasted vote syndrome." No one from the two "non-entrenched" parties (Independence or Green) wants to be a "spoiler." They want people's votes to matter and for people to vote for what they believe in. This party used IRV to determine the winner in its 2004 presidential preference ballot."<sup>111</sup>

#### Republican Party

Steve Sviggum, Republican Speaker of the Minnesota House of Representatives, does not see a problem with the current Plurality system and is not sure what it is that people are trying to fix.<sup>112</sup>

When asked about the House's rejection of the bill to permit Roseville to use Instant Runoff Voting, House Majority Leader Erik Paulsen, R. Eden Prairie, said that the current election system is clear, Instant Runoff Voting "looks like it would be a very confusing

process. Just philosophically, there’s no need for the state to be involved with this. People vote for the one person they think should hold office, and you live with the results, That’s democracy.”<sup>113</sup>

Ray Cox, R, Northfield, is concerned that under Instant Runoff Voting the results of the first round would not be kept secret, and he didn’t think the electorate would accept a winner who did not have the most votes on the first ballot. He said, “It doesn’t bother me that a person may be elected with less than 50 percent of the vote. . . . in three-or-more-candidate races.”<sup>114</sup>

### Appendix 3: Constitutionality of Alternative Voting Systems in Minnesota

Solgård and Landskroener explain the State Supreme Court’s decision in the *Brown v. Smallwood* case. The Court found that Duluth’s 1912 voting system failed constitutionality in two ways. First, if no candidate received a majority after the voters ranked their preferences and cast their ballots, the voters’ additional preferences were counted as additional votes added to the candidates’ tallies. When the results were final, there were 18,860 votes but only 12,313 voters. The Court said that the voting system had the effect of giving more than

	Is it the case that there is no more than one vote per voter per office? (“Yes” passes test)	Is it the case that second preferences do not hurt first preferences? (“Yes” passes test)
Approval	No	No
Borda	No	No
Condorcet	Yes	No
Instant Runoff	Yes	Yes

one vote to some voters and greater or lesser effects on the election, which it said was not intended by the Constitution.

The Court’s second objection was that by marking additional preferences, the voters were hurting the prospects of victory for their first choices. The Court found it unacceptable to put the voters in this position.

Below is a chart in which each of the alternative voting systems is evaluated according to the Court’s tests of constitutionality:

When Solgård and Landskroener apply the tests of constitutionality in the one Minnesota Supreme Court case to address the subject of alternative voting systems, they find that Instant Runoff Voting appears to be the only one that passes the tests. The other three systems would likely require a constitutional amendment to be acceptable for use in Minnesota elections.<sup>117</sup>

### Appendix 4: Election Statutes and Home Rule Cities

Solgård and Landskroener pointed out that Section 410, the law authorizing home rule cities, grants broad authority to home rule cities, including control of its election system: “Not only does [Section 410.21] vest a city with the affirmative power to enact in its charter an election system that is ‘valid and shall control . . . not withstanding’ any inconsistency with other general election law, it also reinforces this affirmative grant of power by expressly providing that charter provisions take precedence over any general law that is not consistent with the charter.” They further observed that the *Brown v. Smallwood* decision expressly stated that home rule power extended to the choice of voting system, so long as it was constitutional.<sup>117</sup>

Solgård explains, “If there was any remaining conviction that Section 205.185 might still prohibit home rule cities from going their own way, it may have been

overcome when, in one of its final acts of the 2004 session, the legislature amended that provision by adding the same ‘except as expressly provided by law’ qualifier found in other statutes. With that exception embedded in the same sentence as the original instruction for municipalities to conform to the state general election, it is quite clear that home rule cities may adopt an alternative voting system, so long as it is constitutional.”<sup>118</sup>

Solgård provided this chart [next page] to show which laws, in his opinion, would need to be changed for various jurisdictions to adopt one of the alternative voting systems considered in this study.<sup>119</sup>

## Alternative Voting Systems — Facts and Issues: Part IV

	<b>Approval</b>	<b>Borda</b>	<b>Condorcet</b>	<b>Instant Runoff</b>
Home Rule City	Constitution, Charter	Constitution, Charter	Constitution Charter	Charter
Statutory City	Constitution, Statute	Constitution, Statute	Constitution, Statute	Statute
School Board	Constitution, Statute	Constitution, Statute	Constitution, Statute	Statute
County	Constitution, Statute	Constitution, Statute	Constitution, Statute	Statute
State	Constitution, Statute	Constitution, Statute	Constitution, Statute	Statute

### Appendix 5: 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**

<u>Number of Voters</u>	<u>7</u>	<u>8</u>	<u>10</u>	<u>4</u>
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**

<u>Number of Voters</u>	<u>7</u>	<u>8</u>	<u>14</u>
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*.<sup>120</sup>”

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### Alternative Voting Systems

#### League of Women Voters of Minnesota

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#### League of Women Voters of Florida

Issues Related to Alternative Voting Systems for the State of Florida