A. CHARGE TO TASK FORCE

On March 10, 2006 City Council passed a resolution creating a task force to examine the practicality of Instant Runoff Voting as a method of electing officers of the City of Minneapolis. The task force was charged with studying the process and making a recommendation to the Minneapolis City Council regarding implementation of Instant Runoff Voting. Council asked that the final report include information about steps that would need to be taken, a proposed timeline, and an estimate of the expenditures that would need to be made to implement IRV for our local elections. The task force is made up of the following members:

- Cam Gordon, Chair Minneapolis City Council Member
- Annie Young Minneapolis Park and Recreation Board
- Laura Waterman Wittstock Minneapolis Library Board
- Peter Wagenius Mayor’s office
- Lucy Wieland Chief Judge of District Court
- Tyrone Bujold Minneapolis Charter Commission
- Cindy Reichert Minneapolis Director of Elections
- Michelle DesJardin Hennepin County Elections Manager

Assisting the task force were Council Aides Robin Garwood and Natalie Collins.

The task force met five times and discussed the following issues:

- How IRV works from a voter’s perspective as well as how votes are counted
- The legal and constitutional challenges that may apply
- How general election law and statutory authorities would apply if IRV were adopted by Minneapolis
- Voter and Pollworker Education
- Equipment and technology requirements to implement IRV
- Progress made on implementation by other jurisdictions who have adopted IRV

Task force members interviewed City of San Francisco Elections Department staff via conference call. Elections Department staff also conducted extensive research and held phone interviews with election officials from around the country.

Task Force members believe our purpose is not to debate the merits of Instant Runoff Voting, but rather to present the facts and issues that were raised during our research and discussion. Not all members were in agreement at all points and differences remain in our individual opinions about the merits of using Instant Runoff Voting to elect our city officers.

During the next phase of consideration it is important for council to ask the following questions:

- How will IRV affect the results of elections for our Mayor, Ward Council Members and multiple-seat boards?
- What effect will a new system have on the political climate of the city?
- How will implementation of an IRV system affect our partnerships with Hennepin County and other cities?
- What is it about the current Minneapolis system that needs change?
B. ISSUES OF ADOPTION AND IMPLEMENTATION

1. Legal Issues

The IRV Task Force members reviewed information previously provided by the City Attorney’s Office to the City Charter Commission earlier this year regarding the issue of city elections and allowing for instant Runoff Voting in the general election for city offices. The City Attorney’s letter to the Charter Commission expressed concern about the constitutionality of a preferential voting system as the Minnesota Supreme Court, in a 1915 decision, declared a preferential voting system used in a Duluth election to be unconstitutional. The City Attorney’s Office also shared a 2003 letter opinion sent by the Minnesota Attorney General’s Office to the Duluth City Attorney which expressed concerns about statutory and constitutional issues relating to a proposed change in their charter to allow for Instant Runoff Voting.

Additionally, two proponents who are also the authors of a 2002 Minnesota Bench and Bar magazine article supporting an IRV system addressed the Task Force to discuss their views and legal arguments supporting an IRV system and the constitutionality of an IRV system.

The Task Force members also discussed whether the legal issues might be clearer if the legislature explicitly allowed for IRV in municipal elections. They were apprised of proposed legislation currently pending at the legislature which would allow municipalities to pursue alternative voting systems.

The Task Force members reviewed and discussed the various views as to the legal issues presented. The City Attorney’s Office will be providing a legal memorandum in the near future after completion of more research.

2. Possible Charter Amendments on Ballot

The group needs more information about how charter amendments would be reconciled, should more than one be approved by voters. If voters approve Charter revisions proposed by the Charter Commission to be placed on the ballot this fall which do not include IRV, and a ballot question approving IRV, Council will need to determine how the Charter language between the two initiatives can be resolved.

3. Voter Education

Task Force members agreed that a fundamental change in how Minneapolis elects its Mayor, Council, and Independent Board members will require a substantial voter education campaign. Because the IRV voting method could only be used to elect city offices every four years, we must also take care to “re-educate” our public before and after each local election. It will be particularly important to reach all economic classes and populations in the city.

The City of San Francisco spent $776,000 between adoption and implementation and continues to retain 5 full-time staff members whose primary responsibility is voter education. On-going education efforts are part of their long-range plan.

The task force has included a draft communications plan, attached to this report.
4. Use of IRV for Multiple Seat Offices

All Instant Runoff Voting systems allow voters to rank candidates in order of preference, but vote counting is done differently for single and multiple seat offices. In a single seat office, if a candidate receives a majority of first choice votes (50% + 1), that candidate wins. If not, the candidate with the fewest votes is eliminated and the votes cast for the eliminated candidate are transferred to the second choice listed on those ballots. That process is repeated until there is a majority winner.

Minneapolis has several multiple seat boards; the Library Board, Board of Estimate and Taxation, and at-large Park and Recreation Commissioners. Under our current system, voters are asked to vote for as many candidates on the ballot as there are offices to fill. So, Minneapolis voters have six first choice votes for Library Board, two first choice votes for the Board of Estimate and Taxation and three first choice votes for At-Large Park Commissioners.

Under the proposed IRV system, multiple candidates can still be elected, but instead of having several first choices, voters get one first choice, one second choice, etc., theoretically up to the number of candidates to be elected. The number of votes each candidate needs to win, called the “threshold,” is calculated and candidates that reach that threshold are declared elected. Two key differences in a multiple seat election are that 1) candidates do not need to meet a 50% + 1 majority to win a seat, and 2) that any votes a winning candidate receives above the threshold are removed from the winning candidate’s tally and applied proportionately (through a mathematical process) to other candidates’ totals.

During our discussion, some task force members expressed concerns about the application of IRV to elections for multiple-seat independent boards. Only one other jurisdiction in the United States, Cambridge MA, is currently using IRV to elect candidates to a multi-seat office. All members of the Cambridge City Council are elected at large and the method is used to achieve proportional representation.

5. Equipment and Technology Issues

a. Equipment Availability

To date, no voting equipment vendor has developed an Instant Runoff Voting equipment system that meets Federal and MN state certification requirements, and operates according to specifications required under the Help America Vote Act.

City staff is aware of nine cities in the United States that currently identify IRV as their method of voting in municipal elections. Of those nine cities, only three have successfully conducted an election using IRV. Each jurisdiction is different in terms of the offices identified to be elected by IRV, population and method of tabulating results. Charter amendments adopting IRV are being considered by many cities across the country, but implementation in nearly all cases is dependent upon availability of voting equipment which can tabulate results.

Elections Department staff has spoken with election officials in all nine cities that have adopted IRV. The three cities that have managed to implement are
tabulating results using older voting equipment that is no longer certifiable. One city which recently adopted IRV intends to tabulate their election results using a hand count system, which is unrealistic in a city of our size. Several cities have included a clause in their charter amendments authorizing the use of IRV when equipment becomes available.

In 2004 San Francisco paid $1.6 million for changes to the program of their existing machines to run IRV. In March of 2005 San Francisco issued an RFP for new voting equipment and has yet to find a vendor that can fill the contract. The City of San Francisco has run two of their local elections using the the ES&S Eagle voting system, which is no longer in production. The California Secretary of State’s Office issued a “conditional” certification for use of that system in 2004 and 2005. That certification is no longer valid and San Francisco may be required to seek approval for another conditional certification for November of 2006.

Alameda County, California (which encompasses Berkeley, San Leandro and Santa Clara) is negotiating with Diebold Corporation who has indicated that they may be able to modify their existing equipment for a cost of approximately $900,000. That program will not be developed until 2008 and no contracts have yet been signed.

Each jurisdiction that has adopted an IRV system is slightly different in terms of the programming required to run the individual elections. Vendors have no standard to conform to and it is not cost effective for them to develop systems which are individually tailored to a few jurisdictions. This is indeed what our own equipment vendor, ES&S has told us on multiple occasions.

b. Issues Regarding our Current Voting Equipment

The City of Minneapolis operates all elections using the ES&S model M100 optical scan ballot tabulator. These machines are owned by Hennepin County and provided through a contract to all 426 Hennepin County election precincts. The opportunity to lease rather than own the equipment has been very cost effective for individual cities. If Minneapolis had been required to make our equipment purchase independently in the year 2000, the cost to the city would have been approximately $1.7 million dollars. Under the contract with Hennepin County the city pays only the cost of the warehouse to store the equipment and a relatively small maintenance fee making our total equipment costs less than $65,000 per year.

Minnesota Statute 206.58 allows cities to provide for the use of an electronic voting system subject to approval by the County Auditor. Because the entire county operates under one system, Hennepin County has been able to provide ballot printing, programming and accumulation services to all cities and school districts as part of the contract. Terms and contract costs are attached to this report.

The County Auditor’s office has informed us that even if modifications to the M100 were offered to us by ES&S, our contract with the county would not
allow us to make any changes to the machine program. Therefore, if Minneapolis were to adopt an IRV system, Minneapolis would need to purchase of an entirely new set of election equipment. In addition to the initial purchase Minneapolis would need to pay on-going warehouse, programming, printing and maintenance costs.

In addition to the purchase of new equipment, the City would be required to retain the Hennepin County M100's for use in all elections other than our city election. A letter from the Hennepin County Auditor explaining the rationale for this requirement is attached to this report.

6. **Timeline for Implementation**

The citizen petition currently circulating does not include language allowing flexibility in the implementation date. Because of significant issues with equipment availability flexibility is necessary. Assuming a vendor is identified to provide the necessary equipment, implementation must take into account the process of federal and state certification, rules and procedures development and adoption, and adequate public education.

Given these factors, a system probably cannot be ready by our next local election in 2009. A more reasonable date of implementation would be 2013.

C. **STEPS TO IMPLEMENTATION WITH ASSOCIATED COSTS**

This section outlines necessary steps, current costs and estimated proposed costs under an IRV system. There will be considerable cost to staffing of the Elections Department. It is yet unclear whether an added position would be contractual or a regular employee. The cost of an additional elections department staff member with benefits has been added to the list of expenditures attached to this report. The figures which appear below are detailed on that attachment.

1. **Charter Question Considerations (Prior to passage)**
   **Associated Cost:** Attorney Fees & Election Staff Time

If a question is to be presented to our voters, the City Council will have a great deal more control over implementation if the question comes forward as a Council initiative. The citizen petition currently circulating does not allow for choosing which offices to apply the method to, and does not allow flexibility in time of implementation.

Decisions council should make prior to placing a charter amendment on the ballot are:

- How to reconcile a proposed charter amendment to general charter revisions that may also appear on the ballot
- Whether all or only some city offices are to be elected using IRV
- How to draft charter language to allow for flexibility in time of implementation
2. **Conduct Public Education Campaign (after passage)**

Associated Cost:

<table>
<thead>
<tr>
<th></th>
<th>Current 2006 Cost</th>
<th>Proposed Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 3,215</td>
<td>$143,115</td>
</tr>
</tbody>
</table>

A fundamental change in how Minneapolis elects its Mayor, Council, and Independent Board members will require a substantial voter education campaign. Assistance in conducting the campaign would be needed from communications specialist and additional elections department staff. Media to be used would include news releases to local newspapers, newsletters, a web page dedicated to implementation of IRV, regular council updates, city cable updates, posters, brochures, public service announcements, community presentations, video presentations, and mailings.

3. **Develop Election Rules and Procedures (City ordinance)**

Associated Cost: Attorney Fees & Election Staff Time

Election rules and procedures are contained in statute and are written specifically for our current election system. New rules regarding the conduct of recounts and hand counts, write-in votes, determining the winner in a tie vote (in each round and at final outcome), and ballot marking instructions for in-person and absentee voters need to be determined. This process must be well thought out and very thorough to protect the city from liability in the conduct of an IRV election. Following the rule setting process, an ordinance will need to be drafted, reviewed by attorney staff, and adopted by the City Council. A significant amount of staff time will be spent preparing various election materials, forms and training materials.

4. **Obtain Equipment**

Associated Cost:

<table>
<thead>
<tr>
<th></th>
<th>Current annual expenditure</th>
<th>Proposed acquisition</th>
<th>Combined annual expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 65,000</td>
<td>$1,080,780</td>
<td>$ 130,000</td>
</tr>
</tbody>
</table>

The process of developing an RFP and purchasing new voting equipment to run an IRV election will be costly and time-consuming. Following passage of the Election Rules Ordinance, equipment specifications will need to be developed and an RFP process will take place. Prior to an award of contract the equipment must receive certification at the federal and state levels. The certification process can take up to two years. Following award of the contract warehouse space will need to be secured and acceptance testing conducted. Because the city will be required to operate all even year elections using the same equipment used by the rest of the county, warehouse costs will be doubled.
5. **Ballot Development**

Associated Cost:
- 2005 Cost: $52,000
- Proposed: $154,000

Ballot design will be dependent upon the rules established by ordinance, the capabilities of the equipment and offices to be elected. Ballot programming currently done by Hennepin County will be done by city staff or a contractor. Printing costs will be greater as it is likely the ballot will be 2-3 pages long. Again, the length of the ballot is dependent upon the number of candidates that file for office. Specifications for ballot program testing will need to be developed.

6. **Election Judge Training and Staffing**

Associated Cost:
- 2005 Cost: $328,640
- Proposed: $319,050

Election judges are currently on a 2-year state mandated training cycle. The bulk of our training efforts occur prior to even year state and federal elections. In local election years training is only needed for newer judges and chair judges. In order to understand the system and adequately serve a potentially confused electorate, training in the initial years of implementation would be required for ALL election judges. Staffing levels at the polls would need to be slightly higher than a current local election. Write-ins will be more costly to record and enter into an accumulation program and Nursing Home judge staff will need to be increased to deal with confused elderly voters. If the primary is to be eliminated, staff costs for election judges will go down slightly under the proposed IRV system.

7. **Results Accumulation**

Associated Cost:
- 2005 Cost: $750
- Proposed: $3000

For jurisdictions using IRV, the voting equipment is comprised of two components; a precinct ballot counter and an accumulation program. After 8:00 p.m. on election night, the data cards are removed from the precinct ballot counters and entered into a different computer which runs the program that calculates the results. City Elections staff cannot proceed with the “instant runoff election” – cannot eliminate candidates or transfer votes – until it is determined no candidate has received a majority of first-choice votes. To make this determination, the department must manually process all write-in votes. Even if it is clear on or soon after election night that no candidate has received a majority of the first-choice votes cast for an office, it may not be possible to determine which candidate received the fewest votes (the candidate to be eliminated) until every write-in vote has been processed. This could take as long as three working days.

Once the process of counting write-ins is complete and the data has been manually entered into the accumulation program, the process of eliminating candidates, transferring votes cast for the eliminated candidates and tabulating final election results is expected to take just a few minutes. The IRV vote counting process will be considerably slower than our current results tabulation process.
Attachments:

How IRV Works – An Explanation of the Method
January 3, 2006 Letter from City Attorney
“Municipal Voting System Reform: Overcoming the Legal Obstacles”
February 10, 2003 Letter Opinion from MN Attorney General’s office
Draft Communications Plan
Estimated Expenditures for Implementation
Letter from Hennepin County Auditor
Summary of Hennepin County Election Equipment Contract
Notes from San Francisco Conference Call
Jurisdiction Comparison
HOW IRV WORKS

Instant Runoff Voting (IRV) is a ranked ballot method of voting that always results in winners chosen by a majority of the voters. On the ballot, voters rank the candidates in order of preference. Each voter has one vote which counts for the highest preferred candidate that can use it. Votes for defeated candidates are transferred to other candidates still in the race for each round of counting. It's just like a series of runoff elections except that it is accomplished on one ballot – hence the term, "Instant Runoff Voting."

<table>
<thead>
<tr>
<th>1st choice</th>
<th>2nd choice</th>
<th>3rd choice</th>
<th>4th choice</th>
<th>Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>George Washington</td>
</tr>
<tr>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td>John Adams</td>
</tr>
<tr>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td>Thomas Jefferson</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
<td></td>
<td>□</td>
<td>James Madison</td>
</tr>
</tbody>
</table>

While this voting method is commonly referred to as Instant Runoff Voting for single seat elections, the actual method of counting is "Single Transferable Vote" (STV) and can be applied to both single seat elections (i.e., Mayor, City Council, and Park Board Districts) and multi-seat elections (i.e., Park Board at Large, Library Board, and the Board of Estimate and Taxation). The actual counting of votes is best illustrated with examples of each.

Counting Votes (single seat election)

Once the polls are closed, the counting begins. In the first round of counting, only the first choice votes are counted. If no candidate receives a majority, the candidate with the fewest votes is deemed defeated. Votes for the defeated candidate are transferred to the next ranked candidate on each ballot, and the votes are recounted. The process continues until one candidate has a majority of the votes and is declared the winner.
Counting Votes (single seat election)
*Example from the 1990 Irish presidential election.*

Voters rank candidates on the ballot in order of preference – first choice and runoff choices – by checking one choice in each column.

<table>
<thead>
<tr>
<th></th>
<th>1st choice</th>
<th>2nd choice</th>
<th>3rd choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Robinson</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Austin Currie</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Brian Lenihan</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Counting Votes (single seat election)
*Example from the 1990 Irish presidential election.*

In the first round, the 1st choice votes are counted for each candidate.
Counting Votes (single seat election)
*Example from the 1990 Irish presidential election.*

Since no candidate has reached the threshold required to win (50% + 1 of the votes), a runoff is required. Austin Currie received the fewest votes, so he is eliminated and the 2nd choice votes (on the ballots that listed him as the 1st choice) are redistributed to the other candidates.

Counting Votes (single seat election)
*Example from the 1990 Irish presidential election.*

In this case, no further runoff is required since Mary Robinson reached the threshold of votes required to be elected. Had there been more candidates, it's possible that additional
rounds of the runoff would have been required. The process of eliminating the candidate with the fewest votes and redistributing votes would be repeated until one candidate reached the threshold.

<table>
<thead>
<tr>
<th></th>
<th>1st Choices</th>
<th>Instant Runoff</th>
<th>Final Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Robinson</td>
<td>38%</td>
<td>+15%</td>
<td>X</td>
</tr>
<tr>
<td>Austin Currie</td>
<td>18%</td>
<td>-18%</td>
<td>53% Winner</td>
</tr>
<tr>
<td>Brian Lenihan</td>
<td>44%</td>
<td>+3%</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>n/a</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Notes: Winning threshold must be at least 50% + 1%*

Counting Votes (multi-seat election)

For multiple seat elections, the basic process is the same as for a single seat election, but the counting involves a few more steps. The difference is that when a candidate exceeds the number of votes required to be elected, the excess portion of each vote for that candidate is transferred to the next ranked candidate on each ballot (hard to do by hand, but easy for computers).

This method ensures that no votes are "wasted" and that voters win representation in proportion to their voting strength or their fair share of representation. It is ideal for nonpartisan elections.

We'll look at a simplified example of an election with 4 candidates running for 2 seats on a board. Note that the ballot is no different from a single-seat election:

<table>
<thead>
<tr>
<th>1st choice</th>
<th>2nd choice</th>
<th>3rd choice</th>
<th>Bill Jones</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>*</td>
<td></td>
<td>Bill Jones</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Margaret Haralson</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Anita Sanchez</td>
</tr>
<tr>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Mohamed Ahmed</td>
</tr>
</tbody>
</table>

Counting Votes (multi-seat election)

As always, the first task is to count first choice votes for each candidate.
Counting Votes (multi-seat election)

Establish the threshold — the minimum number of votes needed to win. This is calculated using the following formula:

\[ \frac{\text{votes}}{\text{seats} + 1} \]

For various numbers of seats (in Minneapolis elections), it works out as follows:

<table>
<thead>
<tr>
<th>To elect</th>
<th>Votes needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person (mayor, council, park bd districts)</td>
<td>$1/2 + 1$</td>
</tr>
<tr>
<td>2 People (estimate &amp; taxation board)</td>
<td>$1/3 + 1$</td>
</tr>
<tr>
<td>3 People (park board at large)</td>
<td>$1/4 + 1$</td>
</tr>
<tr>
<td>8 People (library board)</td>
<td>$1/8 + 1$</td>
</tr>
</tbody>
</table>

Counting Votes (multi-seat election)

Continuing with our example, the threshold is calculated and 3334 votes are required for a candidate to be elected to one of the two seats available.
### Instant Run-off Voting Task Force

**Final Report**

May 9, 2006

<table>
<thead>
<tr>
<th></th>
<th>1st choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Jones</td>
<td>4000</td>
</tr>
<tr>
<td>Margaret Haralson</td>
<td>3000</td>
</tr>
<tr>
<td>Anita Sanchez</td>
<td>2000</td>
</tr>
<tr>
<td>Mohamed Ahmed</td>
<td>1000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10000</strong></td>
</tr>
</tbody>
</table>

To elect 2 seats:

\[
\frac{10000}{2+1} + \frac{1}{2} \times 3334.3
\]

3334

### Counting Votes (multi-seat election)

Once a candidate reaches the threshold, he or she is declared elected. Then that candidate’s surplus votes are distributed proportionally to next choice on each ballot. The surplus is calculated as the proportion of that candidate’s votes beyond the threshold:

\[
\text{Surplus} = \frac{\text{Votes} - \text{Threshold}}{\text{Votes}}
\]

### Counting Votes (multi-seat election)

Back to the example. Since Bill Jones exceeded the threshold of 3334 with his 4000 votes, he is elected. His surplus proportion is calculated as:

\[
\frac{4000 - 3334}{4000} = 16.666\% = 16.65\%
\]

The number of votes to be redistributed is:

\[1665 \times 4000 = 666\]

### Counting Votes (multi-seat election)

The surplus portion of each vote for Bill Jones (equivalent to a total of 666 votes) is redistributed to the next choice on each of those ballots. Assume that of the people who selected Bill Jones as their first choice, for their second choices, none selected Margaret Haralson, three-quarters selected Anita Sanchez, and one-quarter selected Mohamed Ahmed:
Counting Votes (multi-seat election)

Redistributing those votes means removing 666 votes from Bill Jones’ tally so that his total just meets the threshold. Then his surplus votes are added to the other candidate’s tallies and the votes are recounted:

<table>
<thead>
<tr>
<th></th>
<th>1st choice</th>
<th>2nd choice</th>
<th>Calculation</th>
<th>Redistribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Jones</td>
<td>4000</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Margaret Haralson</td>
<td>—</td>
<td>0</td>
<td>0 x 1666 = 0</td>
<td>0</td>
</tr>
<tr>
<td>Anita Sanchez</td>
<td>—</td>
<td>3000</td>
<td>3000 x 1666 = 499,6</td>
<td></td>
</tr>
<tr>
<td>Mohamed Ahmed</td>
<td>—</td>
<td>1000</td>
<td>1000 x 1666 = 166,5</td>
<td></td>
</tr>
</tbody>
</table>

No other candidate in this example reaches threshold of 3334 after the surplus votes are redistributed. If a candidate had reached the threshold at this point, he or she would be declared elected and no further counting would be required.

Since we don’t have another candidate with enough votes to be elected, the next step is to hold a “runoff election.” The last-place candidate is eliminated and his or her votes are distributed to the next choice on each ballot. In our example, Mohamed Ahmed is defeated and his 1166.5 votes will be redistributed in the next step.

Counting Votes (multi-seat election)

Mohamed Ahmed is defeated, so votes cast for him are distributed to the next choice on each ballot. This includes the proportion of votes previously redistributed from Bill Jones’
surplus. For simplicity, we'll assume nobody who ranked Mohamed Ahmed as their first choice ranked Bill Jones as their second choice.

<table>
<thead>
<tr>
<th></th>
<th>1st choices</th>
<th>Redistribute</th>
<th>Recount</th>
<th>Redistribute</th>
<th>Recount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Jones</td>
<td>4000</td>
<td>-566</td>
<td>3334</td>
<td>0</td>
<td>3334</td>
</tr>
<tr>
<td>Margaret Harrison</td>
<td>3000</td>
<td>0</td>
<td>3000</td>
<td>+166.5</td>
<td>3166.5</td>
</tr>
<tr>
<td>Anita Sanchez</td>
<td>2000</td>
<td>+1499.5</td>
<td>2499.5</td>
<td>+1000</td>
<td>3499.5</td>
</tr>
<tr>
<td>Mohamed Ahmed</td>
<td>1000</td>
<td>+166.5</td>
<td>1166.5</td>
<td>-1166.5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10000</td>
<td>0</td>
<td>10000</td>
<td>0</td>
<td>10000</td>
</tr>
</tbody>
</table>

To elect 2 seats:

\[
\frac{10000}{2+1} + 1 = 3334.5
\]

Anita Sanchez reached the threshold of 3334 votes and is elected. Both seats have been filled, so the vote count is completed.

**Counting Votes (multi-seat election)**

In the example, if none of the candidates had reached the threshold of 3334 votes after the last round of votes were redistributed, the process would have been repeated redistributing votes and eliminating candidates until all of the seats were filled.
Special Cases

In every voting system there are rules to handle special cases such as incomplete or incorrectly completed ballots. The counting rules for Instant Runoff Voting generally try to minimize the effects of people trying to skew the election by voting in certain ways. The rules complicate the details of counting ballots by hand for special cases, but it's no problem for computers. Here are a few examples of rules that the city council might adopt to handle special cases:

- For a ballot to be valid, the voter must rank only one candidate as the highest choice. If a ballot gives equal rank to two or more candidates, the ballot is declared "exhausted" during the runoff round where duplicate rankings are reached, and it is set aside and not counted in any remaining runoff rounds.
- If a voter casts a ranked-choice ballot but skips a rank, the vote will be counted for that voter's next ranked choice.
- If all of the candidates chosen on that ballot have been elected or defeated or there are no more candidates indicated on the ballot, then the ballot is deemed "exhausted" and not counted in any remaining runoff rounds. This is the equivalent of voting in the primary election but skipping the general election!
January 3, 2006

Jim Bernstein, Chair
Minneapolis Charter Commission
&
Minneapolis Charter Commissioners

VIA E-MAIL

RE: Proposed Revisions to the Minneapolis City Charter

Dear Charter Commissioners:

You have asked my office to provide guidance with regard to the City of Minneapolis’ ability to provide for Instant Runoff Voting and/or Ranked Voting methods by charter amendment. Instant Runoff Voting (a.k.a. IRV) is commonly known as a voting system wherein voters initially indicate weighted preferences for multiple candidates, and election officials subsequently apply procedures based on those weighted preferences to determine the winner of the election without having to hold subsequent elections. Ranked Voting (a.k.a. Borda Count) is commonly known as a voting system wherein voters indicate weighted preferences for multiple candidates, and the candidate with the greatest number of aggregate weighted votes is determined the winner of the election without having to hold subsequent elections.

Your request implicates two questions. The first question is whether the City of Minneapolis, procedurally, can provide for a new voting method by charter amendment. The answer to this question appears to be yes, and the controlling authority most on-point appears to be Minn. Stat. § 410.21 (2005). The second question is whether a new voting method will be constitutional under the Minnesota Constitution. The answer to that question is directly dependent upon what the specific new voting method is, but the Minnesota Supreme Court found preferential voting (a voting method similar to IRV and Borda Count) unconstitutional in the case of Brown v. Smallwood, 153 N.W. 953 (Minn. 1915).

Minn. Stat. § 410.21 (2005) states that “[t]he provisions of any charter of any such city adopted pursuant to [Chapter 410 of Minnesota Statutes] shall be valid and shall control as to nominations, primary elections, and elections for municipal offices, notwithstanding that such charter provisions may be inconsistent with any general law relating thereto; and such general laws shall apply only in so far as consistent with such charter.” Currently, there aren’t any cases listed in the annotated version of Minnesota Statutes construing this section. The plain language of the section suggests that a home rule charter city may provide for the
election of its municipal officers by charter provision. The plain language of the section also suggests that the home rule charter city can provide for the election procedure.

In *Brown v. Smallwood*, 153 N.W. 953 (Minn. 1915), the Minnesota Supreme Court considered a preferential voting system similar to IRV and Borda Count. The Supreme Court found the preferential system at-issue in *Brown v. Smallwood* to be unconstitutional, and stated that a preferential voting system generally would have to be implemented through a constitutional amendment. *Id. at 957*. The Supreme Court noted that the preferential voting system at-issue in *Brown v. Smallwood* violated Minn. Const. Art. VII, §§ 1 and 6 (1915). *Id. at 955-956*. [N.B. Minn. Const. Art. VII, § 6 (1915) is now Minn. Const. Art. VII, § 5 (2005)]. The Supreme Court addressed the concerns of a preferential voting system by stating the following:

The preferential system directly diminishes the right of an elector to give an effective vote for the candidate of his choice. If he votes for him once, his power to help him is exhausted. If he votes for other candidates he may harm his [first] choice, but cannot help him. Another elector may vote for three candidates opposed to him. The mathematical possibilities of the application of the system to different situations are infinite.


In conclusion, the City of Minneapolis appears to be able to provide for a new voting method by charter amendment pursuant to MINN. STAT. § 410.21 (2005), but the City of Minneapolis appears to be precluded from adopting a preferential voting system generally unless such a system is provided for by the Minnesota Constitution pursuant to *Brown v. Smallwood*, 153 N.W. 953, 957 (Minn. 1915).

Very Truly Yours,

Burt T. Osborne
Assistant City Attorney
Municipal Voting System Reform: Overcoming the Legal Obstacles

An alternative approach to voting in municipal elections must surmount some legal hurdles to gain acceptance, but promises results that would better reflect voter choices than the current system.

By Tony Anderson Solgård and Paul Landskroener

With the troubled 2000 presidential election still a recent memory, another grueling round of redistricting now behind us, and another four-way governor's race this November, more attention is being paid to alternative voting methods that could resolve issues raised by these situations.

Some election reform advocates are starting locally by proposing that Minnesota cities act under their home rule powers and adopt Single Transferable Vote (STV) as their voting method. But some have asserted that cities are not free to conduct such an experiment, arguing either that the Legislature must specifically authorize such a system, or that a 1915 Minnesota Supreme Court case has held the method unconstitutional.

This article reports on the reform efforts and alleged legal hurdles to Single Transferable Vote and concludes that the opposing arguments are insubstantial and are not obstacles to reform.

Reform Movement

In the last decade, there has been a revival of interest in American municipal voting system reform that started at the beginning of the 20th century but nearly died out in the 1950s. In both periods, reformers have emphasized the need to elect leaders who represent the diversity of the community while maintaining a city-wide perspective. Elections with healthy give-and-take on important issues, competitive campaigns leading to responsive officeholders, and increased engagement and participation by the city's voters have also been stated as objectives of municipal voting reformers.

Reformers find fault with the familiar "Winner-Take-All" or "First-Past-The-Post" voting system in which the candidate with the most votes wins, even if more than half the votes are cast for other candidates. In election system language, votes that do not help elect a winner are "wasted" by the system. Reformers contend Winner-Take-All wastes too many votes. For example, all of Minnesota's statewide offices were elected in 1998 with less than a majority of the vote.1 That means that more than half of the votes in each contest were wasted by the system. Winner-Take-All also fosters one-party domination, entrenched and unresponsive incumbents, an overly long and costly campaign season, little meaningful debate or choice for voters, and little incentive to turn out to vote.

"Single Transferable Vote," the alternative method discussed in this article, was described recently in Time magazine as "how democracy may look in the future."2 STV differs from the familiar regime in two ways. First, instead of casting a vote for a single candidate, the voter ranks the candidates in order of preference. Second, the vote goes to the highest ranked candidate who can use it. A voter's lower rankings may come into play if the higher ranked candidates are either
INSTANT RUN-OFF VOTING TASK FORCE
FINAL REPORT
May 9, 2006

Candidates are elected in Single Transferable Vote elections by establishing a threshold: the number of votes needed to be elected. That threshold is determined by dividing the total number of votes cast by one more than the number of seats to be filled, and adding one to the quotient.

\[
\text{Threshold} = \frac{\text{Votes}}{\text{Seats} + 1} + 1
\]

The threshold goes down as the number of seats to be filled goes up. Thus, where one seat is to be filled, the threshold is \(1/2\) the votes plus one vote; where two seats are to be filled, the threshold is \(1/3\) the votes plus one vote; for three seats, \(1/4\) the votes plus one vote, and so forth.

In elections with multiple winners, e.g., at-large school board or city council elections, Single Transferable Vote results in proportional representation of the voters, i.e., a given percentage of the electorate elects that percentage of the seats. In single-winner contests among multiple candidates, Single Transferable Vote results in a majority winner without the need for a runoff election. For this reason, this application is frequently referred to as "Instant Runoff Voting."

In an election conducted using Instant Runoff Voting, all first choices are tallied and totaled. The winning threshold is a simple majority of 50 percent of votes cast plus one. In the example in Table 2, where 100 votes are cast, the threshold is 51 votes. But, in the example, no candidate received 51 votes from the tally of first choices. Therefore Candidate D, the candidate with the fewest votes, is declared defeated. Then, voters who voted for D have their votes counted for their second choices. In this case, two went to Candidate C and one went to Candidate B. Adding those votes to the first choices already counted for the remaining candidates still did not produce a winner with a majority of 51 votes. So, Candidate C is eliminated and those 28 votes are transferred to the next choices marked on each ballot. Twelve votes went to Candidate A and 16 votes went to Candidate B. This gave Candidate B the 51 votes required to win. Thus, Candidate B -- the candidate with the most overall support from voters -- wins the election instead of Candidate A, who had a narrower base of overall support. (See Table 2: Vote Count Procedure.)

Mechanics aside, the benefits of Single Transferable Vote include 1) minimizing wasted votes and thus achieving majority rule and full representation of the diversity of the city while maintaining a city-wide perspective, 2) competitive elections that root out unresponsive incumbents, 3) a shorter campaign (by eliminating primaries), 4) substantive debate (by reducing effectiveness of swing vote targeting), and 5) a guaranteed effective vote that provides an incentive to turn out to the polls.

Historical Perspective

In 1912, the state of Minnesota adopted a modified form of Instant Runoff Voting for all primary elections, including those for city, county, district, and state offices. It was repealed in 1915. A brief news article from the time indicates political calculations entered into the decision as well as problems with election judges not knowing how to properly conduct the vote count. The city of...
INSTANT RUN-OFF VOTING TASK FORCE
FINAL REPORT
May 9, 2006

Hopkins adopted Single Transferable Vote as part of its original charter in 1947. It was repealed by the voters in 1959 and the terms of the last officeholders elected under the system expired in 1961. Hopkins was one of two dozen American cities to use Single Transferable Vote for municipal elections in the first part of the century. Cambridge, Massachusetts, continues to use the method.

The movement was revived in the past decade, both around the country and in Minnesota. In the last year, interest in incorporating Single Transferable Vote in new or existing city charters has been expressed in Minneapolis, Roseville, Eagan, St. Louis Park, and St. Cloud. But legal objections to Single Transferable Vote have so far inhibited any city from adopting the method.

**Constitutional Challenge.** In Minneapolis, advocates of a 2001 charter amendment to adopt Single Transferable Vote for municipal elections ran into opposition from the city's charter commission. The commission's attorney brought a 1915 Minnesota Supreme Court decision, *Brown v. Smallwood* 7, to the body's attention. Several commission members cited this case as a basis for the body's recommendation against putting the proposed charter amendment question before the city's voters.

*Brown v. Smallwood* involved a preferential voting system adopted by the city of Duluth in its 1912 charter and a municipaljudgeship created by the Legislature in 1913. 8 The Duluth system asked voters to rank the candidates according to their preferences, but did not use the Single Transferable Vote method to count votes and determine the winner. Instead, a vote-counting procedure known as "the Bucklin method" was used.9

In the Bucklin vote-counting system, if no candidate received the majority of first choices, all second choices were added to the first choices already tallied, and vote totals were checked to see if any candidate reached the new majority threshold. Thus, in contrast to Single Transferable Vote, under Bucklin some voters' votes were counted more than once, and a second-choice vote for a candidate could work as a vote against one's first choice.

To see how this is true under the Bucklin system, consider a voter who casts a first vote for candidate A, a second choice vote for candidate B, and one "additional choice" vote for candidate C. If candidate A had a plurality, but not a majority, of first choice votes, then the voter's second choice would be added to the number of first choice votes B received, along with the second choices of other voters. Thus, the voter's second choice for B has the effect of undermining his first choice, A by giving B more total votes (first- plus second-choice votes) than A. This is why, while 12,313 voters cast ballots in the 1915 Duluth election, the total number of "votes" counted (including first, second, and additional choices) was 18,860.10

These flaws of the Bucklin plan -not present in Single Transferable Vote -- led the Minnesota Supreme Court to declare the Bucklin system unconstitutional. The Court first noted that the Minnesota Constitution provided that every male age 21 or older was "entitled to vote" in elections. The Court then said that, when the Minnesota Constitution was framed,

the word "vote" meant a choice for a candidate by one constitutionally qualified to exercise a choice. ... It was never meant that the ballot of one elector, cast for one candidate, could be of greater or less effect than the ballot of another elector cast for another candidate. It was to be of the same effect.11
Guided by this definition of "vote," the Court concluded that Duluth's Bucklin voting system had the effect of giving more than one vote to some voters and was thus unconstitutional. The Court was particularly troubled by how the Bucklin system put voters in a position of undermining the prospects of their first choices when they indicated lower preferences:

The preferential system directly diminishes the right of an elector to give an effective vote for the candidate of his choice. If he votes for him once, his power to help him is exhausted. If he votes for other candidates he may harm his choice, but cannot help him.12

In contrast to the unconstitutional Bucklin system, Single Transferable Vote not only does not share this infirmity, it clearly possesses the qualities the Court said were required of a voting system. In a similar election under Single Transferable Vote, each voter would have one vote which would be counted for each voter's highest preferred candidate who was eligible to receive it. The total number of votes would never change (except for voters who failed to name a second or subsequent choice, whose votes would be considered as being exhausted if their first choice candidate was dropped after the first round of counting). The practical effect would be no different than having a runoff election to narrow the number of candidates to two, except that it would occur instantaneously.13

Thus, a full reading of Brown v. Smallwood shows the Court invalidated the Bucklin system not because it was a preferential voting method per se, but because it had the effect of giving some voters more than one vote, and because it did not permit the voters to fully and effectively support their first choices. Because Single Transferable Vote does not share this fatal flaw, there is no reason to believe that the Supreme Court would hold that Brown v. Smallwood would prohibit a city from adopting Single Transferable Vote for its municipal elections.

Statutory Challenge
In the city of Roseville, advocates of election reform came up against a statutory, not constitutional, argument thwarting adoption of Single Transferable Vote. This argument, too, does not withstand analysis.

A charter commission was appointed to write a new charter that would convert Roseville from a statutory city to a home-rule city. A resident of the city asked the commission to use the Instant Runoff Voting form of Single Transferable Vote for elections to be held under the proposed charter. The commission referred him to its attorney for an opinion on whether there are any state prohibitions to adopting this alternative voting method.

The Special Counsel for the League of Minnesota Cities, which had been retained by Roseville to do legal work on the charter, advised that certain provisions of Minnesota's election statutes, specifically Minn. Stat. sections 205.185, subd. 2, and 204B.35 to 204B.44, prohibited a city from establishing a preferential voting system "without specific enabling legislation."14

Section 205.185, subd. 2 reads: "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." Section 204B.36, subd. 2, para. 2-3, a section that otherwise gives general instructions on how ballots must be formatted, reads as follows:
On the left side of the ballot at the same level with the name of each candidate and each blank line shall be printed a square opposite the name of each candidate in which the voter may designate a vote by a mark (X).

Each square shall be the same size. Above the first name on each ballot shall be printed the words, 'Put an (X) in the square opposite the name of each candidate you wish to vote for.' At the same level with these words and directly above the squares shall be printed a small arrow pointing downward. Directly underneath the official title of each office shall be printed the words 'Vote for one' or 'Vote for up to...' (any greater number to be elected).

The League's counsel concluded that because an election employing the Single Transferable Vote method would have to have instructions that differed in part from the verbatim instruction contained in this statute, a city could not use Single Transferable Vote without specific authorization from the Legislature. The League's counsel's technical argument ended the matter as far as the Roseville Charter Commission was concerned, and the League's opinion may be the conventional wisdom on the subject.15

City Charters Rule

The laws cited by the League's counsel provide that they apply except as otherwise provided by law.16 Minnesota's home rule law, Minn. Stat. section 410.07, does provide otherwise.

Subject to the limitations in this chapter provided, [a city charter] may provide for any scheme of municipal government not inconsistent with the constitution, and may provide for the establishment and administration of all departments of a city government, and for the regulation of all local municipal functions, as fully as the legislature might have done before home rule charters for cities were authorized by constitutional amendment in 1896.17

It is demonstrated above that Single Transferable Vote is "not inconsistent with the constitution." Therefore, the Legislature could adopt such a system for state elections, as it did in 1912, and this statute expressly gives cities the same authority for municipal elections.

Section 410.21 applies this grant of authority explicitly to elections. Not only does it vest a city with the affirmative power to enact in its charter an election system that is "valid and shall control ... notwithstanding" 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.18

As it happens, one of the Court's findings in Brown v. Smallwood affirms that home rule authority over elections extends to the choice of voting system:

We are of the opinion that it was the intention of the legislature that, [the office in question] should be elected at the general municipal election of Duluth in the manner provided for elections by the charter. The election was a local one, of no particular concern to the rest of the state, and there was no reason why it should not be conducted by the local machinery...If the preferential system of voting was constitutional, there is no reason why it should not be applied to [the office in question].19
Reformers should prevail on the home rule argument alone. However, the strength of their legal position goes much deeper.

While a city’s home rule authority over its elections is broad, it is not unlimited. The Legislature may rein in that authority by enacting specific laws restricting cities' powers and which supersede section 410.21. The Legislature has expressly done so only twice.20 These laws affect how cities must draw precinct borders and apply campaign contribution limits to municipal elections. If the Legislature intended the general ballot instructions in state election law to constrict cities' broad home rule powers, it would have expressly said so.

Even if one were to find a conflict between the general state election laws and the home rule law's grant of power to a city to design their own election systems, two well-settled canons of construction would resolve the conflict in favor of recognizing the city's authority.21 The first canon is that a more specific law controls over a more general law with which it purportedly conflicts. Applied to municipal elections, the law expressly authorizing a city to design its own election system is more specific than the general state election law and should be interpreted as an exception to the more general law.

Second, if the home rule and election laws were found to be equally specific, then a court will interpret the conflicting statutes in such way as to give effect to both. 22 Applying this canon, the state election laws (including the "vote for one" instruction) would be considered the background default rule that would be applied to all municipal elections (thus giving effect to the election law), except to the extent that a city's charter provides for an alternative election scheme that deviates from the general law, in which case the charter would control (thus giving effect to the home rule law).

Moreover, section 205's application of general election laws to cities is qualified in an important way. It says general election laws shall apply "so far as practicable." This approach gives cities the support of statutes in the absence of their own procedures. But it doesn't restrict them if they have established procedures of their own. There is thus nothing about the form of ballot instructions that would exempt this section from the "so far as practicable" qualifier.

The appropriate use of the voter-instruction statute is to serve its intended purpose of presenting choices to voters clearly and impartially, and empowering voters to cast their votes effectively and secretly. This principle is stated in the statute.

Ballots shall be prepared in a manner that enables the voters to understand which questions are to be voted upon and the identity and number of candidates to be voted for in each office and to designate their choices easily and accurately. The name of a candidate shall not appear on a ballot in any way that gives the candidate an advantage over an opponent, including words descriptive of the candidate's occupation, qualifications, principles, or opinions, except as otherwise provided by law.23

This purpose can be accomplished with Single Transferable Vote as was shown above.

There are further reasons why, if the Legislature intended to preclude home rule cities from adopting a Single Transferable Vote voting system, it would have to do so directly and explicitly.
But these need not be belabored further here. A full reading of Brown v. Smallwood and Minnesota election law shows that recent questions raised about the legality of Single Transferable Vote in municipal elections are without foundation and should not be construed as legal impediments to voting system reform. This should free up the discussion to take place in the political arena, where reformers' critique of the First-Past-The-Post voting system and the merits of their proposed alternatives can be considered on the basis of criteria for how to best achieve the performance goals for our democracy.

Notes
7 130 Minn. 492, 153 N.W. 953 (1915).
8 Id. at 494, 153 N.W. 954.
9 The system was named for its originator, James Bucklin, from Grand Junction, Colorado, where it was first used. Unpublished manuscript, Center for Voting and Democracy, Takoma Park, Maryland. See www.fairvote.org for contact information.
12 Id.
14 June 26, 2001, correspondence from Duke Addicks to Bruce Kennedy, copies of which are in the authors' files.
15 To be fair, the League's counsel says he is not personally opposed to alternative voting systems and that the League of Minnesota Cities generally takes a position in defense of home rule powers. However, he regards his opinion as stated in the correspondence with Kennedy to be a reasonable reading of the law.
16 See Minn. Stat. §§200.015, 204B.02, 204B.35, subd. 1.
17 Minn. Stat. §410.07.
18 Minn. Stat. §410.21.
19 130 Minn. at 495, 153 N.W. at 955.
20 See Minn. Stat. §§204B.14, subd. 7 and 211A.12 (2000).
21 Id.
22 Correll v. Distinctive Dental Servs., 607 N.W.2d 440, 445 (Minn. 2000) (citing Minn. Stat. §645.26, subd. 1).
TONY ANDERSON SOLGARD is chair of the board of FairVote Minnesota, a nonpartisan, nonprofit organization educating the public about voting systems and their effect on the quality of democracy.

PAUL LANDSKROENER is a lawyer and graduate of Valparaiso University School of Law. He practices in Edina.
AG letter
AG letter
DRAFT COMMUNICATIONS PLAN

UPON ADOPTION OF CHARTER AMENDMENT
(After adoption during implementation planning)

Message:
How IRV works
Offices to be elected using the system
Description of process city will be undertaking to implement
Status of equipment purchase & certification
How the communications plan will work
Implementation timeline

Media to be used:
News releases to local newspapers, newsletters
Web page dedicated to implementation of IRV
Regular Council Updates
City Cable updates

DURING CALENDAR YEAR OF FIRST IRV ELECTION

Message:
How IRV works
Offices to be elected using the system
How to mark the ballot
How the votes are counted
What to expect at the polls
When to expect results
Where to get more information

Media to be used:
Posters, brochures, public service announcements, community presentations, video presentations, interactive website, mailings.
Presentations - City Hall, NH Meetings, libraries, Community Meetings, targeted audiences
Booths at Festivals/Fairs - Somali Independence Day, Cinco de Mayo, New American Center at Library, Juneteenth, etc.
Brochure -public buildings, parks, libraries, police, block parties, public transportation stops
Posters -public buildings, parks, libraries, police, block parties, public transportation stops
Utility Bill Insert
City website
PSA for local television and radio stations
Training video - poll workers and outreach workers
Postcard mailing to all registered voters
## EXPENDITURE REPORT

CURRENT VOTING SYSTEM AND PROPOSED IRV SYSTEM

**Municipal Election 35% Voter Turnout**

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<th>Proposed IRV Year One</th>
<th>Proposed IRV Year Four</th>
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</table>
### State General Election - 70% Voter Turnout

#### Instant Run-Off Voting Task Force
**Final Report**
May 9, 2006

<table>
<thead>
<tr>
<th>Elections Department Staff</th>
<th>Current System</th>
<th>M 100's 1st Year Following IRV Implementation</th>
<th>New Equipment 1st Year Following IRV Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional FTE with benefits</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 70,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communications and Public Outreach</th>
<th>Current System</th>
<th>M 100's 1st Year Following IRV Implementation</th>
<th>New Equipment 1st Year Following IRV Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications Coordinator</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Brochure printing (100,000)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Poster Printing (500)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Interactive Website Development</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Video Production</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Postcard printing (225,000)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>City-wide Mailing (225,000)</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>LEP Translation Services</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Staff/Consultant Costs – Targeted Outreach</td>
<td>$ -</td>
<td>$ 20,000</td>
<td>$ 20,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Current System</th>
<th>M 100's 1st Year Following IRV Implementation</th>
<th>New Equipment 1st Year Following IRV Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop equipment specs</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Run RFP process for equipment purchase</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Equipment certification</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Cost of new equipment</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Accumulation Software</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Secure warehouse space</td>
<td>$ 45,000</td>
<td>$ 90,000</td>
<td>$ 45,000</td>
</tr>
<tr>
<td>Conduct acceptance testing</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Annual Maintenance</td>
<td>$ 20,000</td>
<td>$ 40,000</td>
<td>$ 20,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ballot Printing and Programming</th>
<th>Current System</th>
<th>M 100's 1st Year Following IRV Implementation</th>
<th>New Equipment 1st Year Following IRV Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballot Programming</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 50,000</td>
</tr>
<tr>
<td>Ballot Printing</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 104,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Election Judge Staffing and Training</th>
<th>Current System</th>
<th>M 100's 1st Year Following IRV Implementation</th>
<th>New Equipment 1st Year Following IRV Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judge Training</td>
<td>$ 43,550</td>
<td>$ 43,550</td>
<td>$ 43,550</td>
</tr>
<tr>
<td>Election Day Judges</td>
<td>$ 305,625</td>
<td>$ 305,625</td>
<td>$ 305,625</td>
</tr>
<tr>
<td>Write in judges</td>
<td>$ 750</td>
<td>$ 750</td>
<td>$ 750</td>
</tr>
<tr>
<td>Nursing Home Voting Teams (24 facilities)</td>
<td>$ 14,200</td>
<td>$ 14,200</td>
<td>$ 14,200</td>
</tr>
</tbody>
</table>

**Total Implementation Costs** $432,340 $517,340 $676,340
Hennepin County Elections Division

Memo

TO: Members of the IRV Task Force
FROM: Michelle DesJardin, Hennepin County Elections Manager
SUBJECT: Voting Equipment
DATE: May 3, 2006

As you proceed in your discussion of potentially implementing ranked voting for your municipal elections, it is imperative to keep the issue of voting equipment in mind. Based on information from previous task force meetings, the County has tried to identify equipment issues and options the City of Minneapolis will have to address.

BACKGROUND
Minnesota Statute 206.58 allows the governing body of a municipality to provide for the use of an “electronic voting system” in “one or more precincts and at all elections in the precincts” subject to approval by the county auditor.

The current voting equipment system used in Hennepin County was agreed upon in the late 1990’s by a task force comprised of representatives from various cities (including Minneapolis) and the County. Other metro cities and counties established different methods of funding the purchase of their voting systems. For example in Anoka County, the cities paid for their own equipment and the County agreed to provide the programming. In Dakota County, the cities and County split the cost of the equipment purchase.

The Hennepin County equipment task force decided the best arrangement was for the County to purchase and own all of the equipment, and to provide programming services to the cities in exchange for the cities agreeing to store and transport the equipment, and to pay an annual maintenance fee. This benefited the cities in that they were not responsible for the large purchase cost and that there would be no programming charges.

The benefit to the County was that this arrangement guaranteed a single system for use in the County with equipment that included instantaneous results transmission capability using state of the art wireless modem technology. This was key in addressing the growing public need for quick results on election night. There were also programming benefits to the County such as greatly simplifying the process used to determine rotations (required in statute ensuring candidates in districts that cross municipal and school district lines appear at the top of the ballot in an equal fashion).
Since the purchase of our current voting system, security and accessibility issues of election data and voting systems have come under intense public, political, and media scrutiny. A federal law change (the Help America Vote Act) established different requirements for new voting systems and also established a new certification process for voting equipment. As a result jurisdictions throughout the country have been scrambling to update and replace their voting machines. Current technology has had a difficult time of accommodating the need for allowing all voters to cast a vote in privacy and also guaranteeing a secure yet transparent system.

CURRENT AGREEMENT AND CERTIFICATION ISSUES
In 1999 the equipment task force recommended the purchase of M100 tabulators created by Election Systems and Software (ES&S). The M100s were purchased by Hennepin County at a cost of approximately $2 million. The County recently amended this contract to update the wireless modems in the M100s so that results can continue to be wirelessly transmitted on election night to the County for tabulation. In addition, the County entered into a contract with ES&S for assistive voting technology (AVT) equipment required by HAVA for all of the precincts in Hennepin County at a cost of approximately $3 million. The City of Minneapolis participated on the committee that put together a local equipment plan to meet the federal requirement and to determine the best use of the one time federal funds provided.

The County and its cities therefore have a lot invested in the current voting equipment. If Minneapolis or any other City adopts a process that requires changes to the voting system, and would seek a change to the current voting equipment, it would require recertification of the entire system both by the federal Elections Assistance Commission and the Minnesota Secretary of State.

The County has leased to the City of Minneapolis 144 M100s tabulators and 144 AutoMARK voter assist terminals and accompanying memory cards. Pursuant to the lease agreement, Minneapolis cannot “make any repairs, changes, modifications or alterations to this equipment that is not authorized by Hennepin County and ES&S.” Minneapolis cannot alter the equipment without county approval. ES&S has told us that they have no plans to modify the M100 to accommodate IRV in part because it cannot be programmed to tabulate ranked voting while at the same time doing non-City races using traditional counting methods. Because of certification and security issues, the County cannot run different versions of firmware in different tabulators in different cities.

The County has thus identified two options the City of Minneapolis might have in addressing equipment issues if a system of ranked voting is adopted.

OPTION A
The City could purchase its own separate voting system to use in its municipal elections. Under M.S. 206.58 the County would need to approve use of this system. In order for this to happen the city would have to work with the selected vendor on the federal and state certification of the system. If ES&S is the selected vendor the City would have to assure the County that it would address the implications of statewide certification of the current system because any modifications made to any part of the system require re-certification
of the entire system. In other words, if Minneapolis' system in any way requires modifications or changes to the ES&S software, firmware, or hardware, this would require recertification of the existing statewide system.

The County would also likely require some type of plan to address voter education issues because there would be concern that Minneapolis voters might become confused about different voting systems and methods used in different types of elections.

**OPTION B**

Under this option the city would use an IRV compliant system in place of but in coordination with the county's M100/AutoMARK system that would still be used in the 300 other precincts in the County. The City's system would need to be capable of accumulating the federal, state, and county results in a manner that could be transmitted to the County in a format that would not take additional programming on the County's part. The City would need to guarantee that other programming issues (such as candidate rotation) would comply with the statute (M.S. 206.61) and that no additional costs would be incurred by the County as a result of running concurrent systems. Under this option the City would not benefit from many of the County's existing services such as ballot layout, programming, and printing while at the same time having to work closely with a vendor to deal with compliance issues with the current system.

The City would also need to continue to pay the maintenance costs of the 144 M100s leased to it until the County could find a way to discard the machines it purchased for use in Minneapolis.

In addition to voter education issues, the programming and statutory requirements would likely be difficult (if not impossible) for the City to meet in order to obtain County approval for use of a separate system.

**ADDITIONAL CONCERN**

Under current Minnesota law, voting systems must include a paper ballot in order to be used. Because of attention given nationwide to security issues involved with touch screen voting systems (direct recording electronic or "DRE" systems) Hennepin County would likely not support a movement towards changing the law to allow these systems for use in Minnesota. From what we have heard, vendors are likely to propose electronic voting in order to meet the IRV system of voting. Because of the number of voters who have contacted the County concerned about electronic voting issues, we would encourage the City to work with the County as it moves forward if DREs become an option the City is considering.
Terms of Hennepin County Equipment Lease

**Equipment Covered:** 144 M100's and 144 AutoMARKS. Quantities may be increased/decreased as directed by the County Auditor and City Administrator.

**Ownership:** County is owner of all equipment and proprietary and trade secret information is owned by ES&S and protected under federal copyright law.

**Responsibility:** City is responsible for equipment insurance, storage, damages, repair and replacement.

**Termination:** Contract can be terminated upon mutual agreement or by either party with cause upon 7 calendar days notice.

**Maintenance Agreement:** County has entered into Maintenance Agreement with ES&S for M100 which City Pays ($128 per unit - $18,432 in 2007) County has entered into Maintenance Agreement with ES&S for AutoMARK which City Pays ($160 per unit $23,040 commencing in 2007)

**Programming and Accumulation (Results Reporting):** County provides programming for all elections. County provides transmission and accumulation for all elections. No cost even years. $100 per precinct odd years (City is exploring other options)

**Cost to Hennepin County for City of Minneapolis Equipment Provided by Contract:**

<table>
<thead>
<tr>
<th>Year Purchased</th>
<th>Component</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>144 Model 100 Optical Scan Precinct Count Units (includes scanner</td>
<td>$781,344</td>
</tr>
<tr>
<td></td>
<td>firmware, storage and transport case, ballot box with diverter, start up</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kit 2 pcmcia cards, operations manual)</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>M100 Tabulation Software</td>
<td>$66,780</td>
</tr>
<tr>
<td>2006</td>
<td>144 AutoMARK Voter Assist Terminals (includes terminal, firmware,</td>
<td>$806,400</td>
</tr>
<tr>
<td></td>
<td>storage/transport case, ink cartridge flashcards, headset, operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>manual)</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>144 AutoMARK Tables</td>
<td>$46,800</td>
</tr>
<tr>
<td>2006</td>
<td>AutoMARK Information Mgmt Software</td>
<td>$2,500</td>
</tr>
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</table>

**Value of Hennepin County Contract to City of Mpls** $1,703,824

**Cost to City per year for equipment maintenance per contract:**

<table>
<thead>
<tr>
<th>Maintenance M100</th>
<th>$18,432</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance AutoMARK</td>
<td>$23,040</td>
</tr>
<tr>
<td><strong>Total per year (commencing in 2007)</strong></td>
<td>$41,472</td>
</tr>
</tbody>
</table>
In conference: John Arntz, Elections Director San Francisco, CA
Linda Tulett, Asst Elections Director, San Francisco CA
Members of the Minneapolis IRV Task Force

Mr. Arntz started out by saying that San Francisco calls their voting method “Ranked Choice Voting (RCV)” because they do not wish to give the impression that results are instant. In fact, obtaining results is a longer process than with their previous traditional voting system.

Members of the Task Force asked the following questions:

1. **What were the challenges San Francisco faced in adopting RCV?**

   The biggest challenge has been getting the equipment vendors to provide voting equipment. ES&S did develop software for their optical scan equipment (Eagle) at a cost of $1.6 million. They are operating on a conditional certification and as long as nothing needs to be retested San Francisco believes they can continue to operate under their conditional certification. If new testing is required for any reason the Eagles will not pass 2002 requirements and will cannot receive permanent certification.

   Another challenge was educating the Elections Department staff. There was some resistance, but everything is going better now.

   Funding was not a problem, because RCV had a champion on Board of Supervisors.

2. **What offices are elected using RCV?**

   The ordinance covers only the City Offices. School Board elections are covered by CA Education Code and those persons are elected at-large.

3. **What were the costs associated with implementing RCV?**

   Initial cost of reprogramming equipment was $1.6 million with an additional $50,000 for education and outreach. Staff costs were considerable but not calculated.

   Printing costs are higher as this method requires more ballots. Only one race can appear on each side of the ballot.

4. **Does San Francisco desire additional changes in their ballot?**

   The San Francisco Charter requires recording data exactly as voters submit on their ballot. This is in conflict with how the RCV counting and vote tabulation operate and there may be further changes to the charter to reconcile the conflict.

5. **What equipment will San Francisco use in the 2006 elections?**
They will continue to use the Eagles with an ES& S AutoMARK this year under their conditional certification. They have extended the contract with ES&S to cover 2006. They will use AutoMark to comply with HAVA and use central tabulating for ballots marked by the AutoMark plus use the old Eagles in the precincts.

6. **Was there any litigation proposed by any group for or against RCV?**

No. There was talk that there would be litigation from a political party or a candidate, but interest waned. The Elections Department staff did hold a meeting with candidates which thought they would fare better under the RCV system to explain to them how the votes were tabulated.

7. **Do people like it?**

Voters are getting used to it. Exit polls from SFSU after the 2004 election asked about the knowledge and after the second year if the voters liked it. Staff disliked the change but are adapting.

8. **Has RCV changed makeup of government?**

No. In all cases without initial majority, the candidate with the plurality also achieved majority after the 2nd round. This eliminates the run off election after the general which has reduced work for the Elections Department.

9. **Has it increased voter turnout?**

It is unclear as the turnout at the 2004 election was extremely high due to the fact that it was a presidential election. It is unclear whether voter turnout has increased due to RCV.

10. **How did it affect campaigns?**

There has been no perceivable change in how campaigns are conducted. The campaigns understood RCV the least.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Contact</th>
<th># Reg</th>
<th>Status</th>
<th>Proposed Implementor</th>
<th>Office/Type of Candidates</th>
<th>Precinct Count Equipment Type</th>
<th>Precinct Count Equipment Cost</th>
<th>AVT Equip</th>
<th>Program</th>
<th>State/Fed Certification</th>
<th>Recount</th>
<th>Hand Count Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkeley CA</td>
<td>Elaine Glenn</td>
<td>74,834</td>
<td>Pending</td>
<td>2006 Charter Amendment</td>
<td>Mayor/Council</td>
<td>Diebold DRE</td>
<td>Negotiating</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Oakland CA</td>
<td>Marjie Keller</td>
<td>195,989</td>
<td>Pending</td>
<td>2002 Charter Amendment</td>
<td>Special Election Mayor/Council Vacancy</td>
<td>Diebold DRE</td>
<td>Negotiating</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>San Leandro CA</td>
<td>Marion Hands</td>
<td>37,708</td>
<td>Pending</td>
<td>2000 Charter Amendment</td>
<td>Mayor/Council</td>
<td>Diebold DRE</td>
<td>Negotiating</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Fremdale MI</td>
<td>Karen Pedro</td>
<td>17,000</td>
<td>Pending</td>
<td>2004 Charter Amendment</td>
<td>Mayor/Council</td>
<td>ES&amp;S M100</td>
<td>Technology not available for equipment purchased 2005</td>
<td>AutoMARK</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tacoma Park, MD</td>
<td>Jessie Carpenter</td>
<td>approx. Pending</td>
<td>2006 Charter Amendment</td>
<td>Mayor ward councilmembers</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cambridge MA</td>
<td>Theresa Neighbors</td>
<td>36,833</td>
<td>Implemented</td>
<td>1937 Charter Amendment</td>
<td>Council/School Committee</td>
<td>Diebold Accurvote Optical Scan since 1997</td>
<td>$25,000 one time cost for programming</td>
<td>Voting Solutions Free</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State of Louisiana</td>
<td>Nancy Underwood</td>
<td>10,000</td>
<td>Implemented</td>
<td>1990 Legal Overseas and Military Only</td>
<td>All</td>
<td>None</td>
<td>None</td>
<td>NA</td>
<td>NA</td>
<td>Yes</td>
<td>All Hand Count</td>
<td></td>
</tr>
<tr>
<td>San Francisco CA</td>
<td>Beth Lipski</td>
<td>418,000</td>
<td>Implemented</td>
<td>2002 Charter Amendment</td>
<td>Mayor/Council</td>
<td>ES&amp;S Eagle</td>
<td>1.6 $million for modifications</td>
<td>ES&amp;S Designed 1.6 million in negotiations with ES&amp;S</td>
<td>In progress</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Burlington VT</td>
<td>Jo LaMarche</td>
<td>25,000</td>
<td>Implemented</td>
<td>2005 Charter Amendment</td>
<td>Mayor</td>
<td>Diebold Accurvote Optical Scan &amp; Used Cambridge Firmware (borrowed)</td>
<td>Negotiating for election day support</td>
<td>Voting Solutions free $2000 for election day support</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>will develop June 2006</td>
</tr>
</tbody>
</table>

Alameda County conducts Berkeley, San Leandro and Oakland Elections:
- In negotiation with Diebold and Sequoia for November Voting Equipment
- No equipment at polls for primary — paper ballots only
- Diebold will develop program for IRV at cost of approx $900,000, but will not be available until 2008 — includes GEMS counting program
- Sequoia has program nearly developed
- Any system developed would need fed and state certification
- Also discussing Berkeley IRV election for November run by ES&S, but may require new certification

May 9, 2006