

Policy details/questions necessary for a successful IRV implementation

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NOTE: Many of these details are not appropriate for the actual contract between the city and the vendor, but the details need to be established and communicated to the vendor and the public as soon as possible.

My starting point for this discussion is ES&S's proposal of January 10. My comments reflect issues that are either not addressed in the proposal or addressed in ways that the Center for Voting and Democracy believes should be modified.

Finally, there may be additional important questions that I am currently overlooking. However, all of the following issues must be acknowledged and resolved for a successful election. If the Dept, vendor or anyone else identifies additional issues, we will of course be glad to help resolve them in compliance with the charter, state and federal law, and the spirit of counting every vote to the maximum extent possible and being as open as possible about the rules, process and progress of the counting of ballots and tallying of results.

First Tier: Need responses in short-term (by end of March)

1. Interpretation of ballots with errors
2. Error message on the Eagle when a voter inserts a ballot with an error
3. Storage and cleaning of votes
4. Result reporting on election night and subsequent reports
5. Handling Logic and Accuracy (L&A) testing
6. Handling write-in votes
7. Conditions under which the City moves to a hand count

Second Tier: Need answers in medium term (by end of April?)

8. Precise ballot format and instructions to voters
9. Hand count procedures
10. When to perform the IRV tabulation
11. How to report overall IRV results

Third Tier: Need answers in longer term (end of June?)

12. How IRV affects the canvas of votes
13. What to do if more than 17 candidates are on the ballot
14. How to report final IRV results by precinct

What ES&S is proposing and CVD's recommendations for modifying the proposal

First Tier: Need responses in short-term (by end of March)

1. Interpretation of ballots with errors

ESS: Proposes excluding any ballots that skip a #1 ranking and any rankings that follow a skipped ranking. For example, a ranking of (none, Jones, Smith) would be excluded and a

ranking of (Jones, none, Smith) would only count for (Jones). Also proposes counting (Jones, Jones, Smith) as (Jones).

CVD: The charter states that ballots skipping a ranking are transferred to the next choice, so (none, Jones, Smith) and (Jones, none, Smith) should both be interpreted as (Jones, Smith). According to the charter, (Jones, Jones, Smith) should count as (Jones, Smith).

2. Error message on the Eagle when a voter inserts a ballot with an error

ESS: Proposes 3 messages: “overvote,” “no first choice selection,” and “same candidate selected more than once.”

CVD: “Overvote” and “same candidate selected more than once” are correctly described, but “no first choice selection” should be changed to “skipped ranking” and expanded to include all skipped ranking (ie, 2nd choice only, 3rd choice only, 1st and 3rd only and 2nd and 3rd only).

3. Storage and cleaning of votes

ESS: Unclear whether vote cleaning occurs as rankings are stored by the voting equipment or later on in the process when the IRV tally occurs.

SF: For maximum transparency, the voting equipment (Eagle and IV-C) should store true ballot images, which include all errors made by the voters (overvotes, duplicate rankings, skipped rankings, etc). This creates a one-to-one correspondence between the marks a voter makes on the ballot and the information stored by the voting equipment and released to the public. After all the ballots are scanned, the “uncleaned” ballot images should be publicly released in an anonymous fashion, and then the “cleaned” data that excludes invalid ballots, resolves skipped rankings, includes write-in candidates and so forth should also be released. This allows a complete audit of every individual step of the process.

4. Result reporting on election night and subsequent reports

ESS: Proposes reporting 1st choice only on the current election report schedule.

CVD: In addition to reporting 1st choice votes as ESS proposes, the Dept should release on Election Night data sets consisting of all ballots scanned to date. These data sets would be anonymous and not contain precinct information. There should be at least 2 reports on election night (early absentee votes as well as 100% or close to 100% of precincts reporting) as well as at least 1 report per subsequent day of counting. Ideally, a single data set would be released on the web each time the Dept runs an election report starting at 8:01pm on Election Night.

5. Handling Logic and Accuracy (L&A) testing

ESS: Not mentioned in proposal.

CVD: Handled as similarly as possible to current protocol. See our memorandum on this for details. The concept is to run test decks through the machines, compare the output file for each machine to the standard established for the test deck and to the 1st choice totals printed on the Eagle tape, and then aggregate all the data files, compare them to the aggregated standard, and then perform the IRV tally and compare the round-by-round results of the automated IRV tally with a manually performed tally on the appropriate data sets. Discrepancies at any stage will pinpoint exactly where problems are occurring.

6. Handling write-in votes

ESS: Not mentioned in proposal.

CVD: Detailed in our memorandum. Process is as similar as possible to existing procedures, but instead of hand counting write-in votes, you have to manually enter the write-in name in the data file stored by the equipment.

7. Conditions under which the City moves to a hand count

ESS: Not mentioned in proposal.

CVD: The Dept. appears to be saying that if the city doesn't have certified voting equipment by June 30th, it will move to a hand count. This seems wise. However, we need a series of additional milestones, the failure of which to meet any one should lead to a hand count. The milestones should include a full-system test in late summer or early fall, the final L&A testing and perhaps other deadlines. These deadlines need to be firm: if the city lets deadlines slip, it's asking for a disaster.

Second Tier: Need answers in medium term (by end of April)

8. Precise ballot format and instructions to voters

ESS: Not mentioned in proposal, but they prepared a draft ballot over a year ago.

CVD: ESS's draft ballot is largely workable, but attention should be paid to the precise wording and format of instructions, as well as possible graphical cues, such as shading, right justification of text and brackets to clarify which arrow goes with which candidate.

9. Hand count procedures

ESS: Apparently developing hand count procedures as part of the contract discussions.

CVD: We've got a memo that lays out the basic schematic. We'd like to run it by ES&S and the Dept.

10. When to perform the IRV tabulation

ESS: Proposes waiting until canvas is certified to the Secretary of State. This can occur 3-4 weeks after the election.

CVD: The unofficial tabulation should occur when the Director believes that all precinct, absentee and provisional votes have been scanned by the voting equipment, and all write-in votes have been scrutinized for voter intent. However, the precise timing of the unofficial tabulation is unimportant as long as the data files consisting of all rankings are released publicly as we are suggesting. In that case, the public will have sufficiently complete results that they can do the tabulation themselves (and pundits, media and political junkies will do this anyway) and the results will be close enough to the final, official results to convince the public that no monkeying with the ballots is occurring. No valid public policy goal is served by waiting 3-4 weeks to release IRV results, when unofficial, complete results could be released within 5-7 days of the election (after absentee, provisional and write-in votes are handled).

11. How to report overall IRV results

ESS: Not mentioned in the proposal.

CVD: The results of an IRV election include the number of votes credited to each candidate in each round of counting. It should also include the number of exhausted ballots in each round.

Third Tier: Need answers in longer term (end of June?)

12. How IRV affects the canvas of votes

ESS: Not mentioned in proposal.

CVD: IRV has NO effect on the canvas of the votes, although some city staff seem confused about this and wonder if there needs to be a separate canvas for each round of vote tallying. The canvas is a reconciliation between the number of signatures at the precinct, the number of absentee and provisional ballots cast and the number of ballot cards used in the election. You can also reconcile the number of votes (including undervotes and overvotes) cast in each race with the number of people who participated in the election. IRV does not change this. The only difference is that the way to count the number of votes in an IRV race is to count the number of lines in the data file that contain one set of rankings per ballot, and includes undervotes (no candidates ranked) and overvotes (invalid votes).

13. What to do if more than 17 candidates are on the ballot

ESS: Not mentioned in the proposal.

CVD: The proposed tri-lingual ballot layout has room for 17 candidates plus a write-in. If more than 17 candidates run for mayor, there are two options. The first option is to use 2 bi-lingual ballots (English-Chinese and English-Spanish), with Chinese language ballots

provided to all precincts, and a small number of English-Spanish ballots provided either to all precincts or the precincts with large numbers of Spanish language voters. The second proposal is to use the Optech Eagle exclusively for both precinct and absentee votes, and this allows a longer ballot that could fit more than 17 candidates with a tri-lingual ballot.

14. How to report final IRV results by precinct

ESS: Not mentioned in the proposal.

CVD: The same format for the overall IRV results (votes by candidate in each round) can be reported at a precinct level, including breaking out absentee votes and precinct votes.