

December 7, 2016

FROM: Chris Jerdonek, BOPEC Chairperson
TO: Budget & Oversight of Public Elections Committee (BOPEC);
John Arntz, Director of Elections

SUBJECT: November 8, 2016 Election Observations (Preliminary, 6 pages)

This memo includes a selection of personal observations about the November 8, 2016 election (either as an observer or as a polling-place inspector in my home precinct). It also includes some suggestions.

This document is not comprehensive. Also, the inclusion of an item does not mean it is more important than something not included.

A. Selected Improvements

This section contains a selection of improvements that I observed and wanted to highlight.

A.1. Certification Letter – RCV Results

The certification letter was extremely well done, with key information about each RCV contest provided in a very concise, easy-to-read form. Each RCV contest included a table listing not just the first and final rounds, but also “Round 0.” Round 0 indicated the first-choice totals prior to advancing past skipped rankings.

While this may not be the first time this formatting was used (I believe it is the second time), I believe it is the first time this style of presentation was used with multiple RCV contests requiring more than one round of tabulation.

See below for an example excerpt of this formatting from the certification letter (for the D7 Board of Supervisors race).

BOARD OF SUPERVISORS, DISTRICT 7

Candidates	Round 0		Round 1		Final Round (4)	
	Votes	%	Votes	%	Votes	%
→ NORMAN YEE	14,154	39.64%	14,179	40.20%	17,692	57.99%
JOEL ENGARDIO	7,630	34.95%	7,645	21.67%	12,815	42.01%
BEN MATRANGA	6,475	10.73%	6,498	18.42%		
JOHN FARRELL	4,927	3.08%	4,948	14.03%		
MIKE YOUNG	1,995	2.36%	2,004	5.68%		
INVALID WRITE-INS	93	0.16%	-	0		
Total Votes	35,274		35,274		30,507	
Exhausted by Overvotes	128		128		153	
Undervotes	4,084		4,084		4,084	
Exhausted	-		-		4,742	
Total Ballots Cast	39,486		39,486		39,486	

A.2. RCV Results – Reducing to Two

As in the previous one or two elections with RCV contests, the Department continued the round-by-round results for each RCV contest until two candidates remained – even if a candidate reached more than 50% in an earlier round. This is an improvement because it provides more information to the public by showing the relative support between the final two candidates.

Unlike in a past election though, these additional rounds were shown one at a time. (In a previous election, the reduction to two took place in a “single step” or round.) The practice in the current election is an improvement because it shows more information than doing the elimination in a single round.

The District 9 Board of Supervisors race from this election is one example of this. In this race, the results table showed four rounds, even though a candidate exceeded 50% in Round 1. In a previous election in which the candidates were “reduced to two,” the reduction to two happened in a single round.

A.3. 1% Random Selection – Border around Table

In this election, the table on which the dice were rolled for the 1% random selection had a low wall or “guard” around all sides of the table. This prevented the dice from rolling on the floor and having to re-roll. In the last election, the guard was only on one side of the table and so it was easier for dice to fall on the floor.

A.4. 1% Random Selection – Ordering of Precincts in Handout

As in previous elections, during the 1% random selection of precincts, the Department gave election observers a handout showing the match-up between 3-digit numbers and precincts.

Unlike in the June 2016 election, this time the precincts were listed in numerical order. This made it much easier for members of the public to locate individual precincts in the list (and to check more easily that each precinct occurs somewhere in the list).

B. Suggestions and Other Observations

This section contains some possible suggestions for improvement or other observations.

B.1. VBM Ballot Card Misprint?

My VBM ballot said 1/5, 2/5, 3/5, etc. at the bottom of each card even though my ballot was a 4-card ballot. This made it seem like a ballot card was missing. Also, some VBM voters (perhaps three or four throughout the day) remarked about this when they arrived to vote at the polling place at which I was an inspector.

B.2. Main Results Page – Number of Winners

The main online results page did not indicate the number of winners (or “open seats”) for each contest, nor which candidates were the “winners” based on the latest totals shown. This made it harder to tell who would be elected, unless you already knew this information off the top of your head.

See for example the screenshot below of the Community College Board contest. This is a contest that had four open seats or winners.

November 8, 2016 Official Election Results English 中文 Español

[Back to top](#)

Member, Community College Board

		Ballots cast	Percentage
SHANELL WILLIAMS		191,317	23.77%
RAFAEL MANDELMAN		177,436	22.05%
ALEX RANDOLPH		156,306	19.42%
TOM TEMPRANO		142,452	17.7%
AMY BACHARACH		135,393	16.82%
WRITE-IN		1,844	0.23%
Total		804,748	100%
Under Votes		852,304	
Over Votes		1,060	

[Back to top](#)

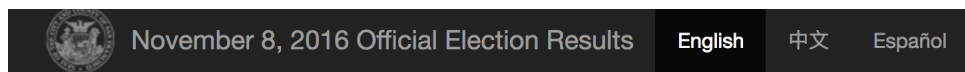
Board of Supervisors, District 1

B.3. Main Results Page – RCV Contests

The main online results page did not indicate which contests are RCV contests. Also, for those contests that were RCV contests, the page provided vote totals without saying what the


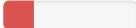
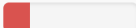
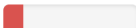
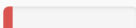
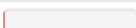
numbers represented (namely the raw “first choices as marked”), and without providing an obvious pointer to the round-by-round totals showing the overall winner.

See for example the screenshot below of how the D7 race for Board of Supervisors looked.



[Back to top](#)

Board of Supervisors, District 7

		Ballots cast	Percentage
NORMAN YEE		14,154	40.13%
JOEL ENGARDIO		7,630	21.63%
BEN MATRANGA		6,475	18.36%
JOHN FARRELL		4,927	13.97%
MIKE YOUNG		1,995	5.66%
WRITE-IN		93	0.26%
Total		35,274	100%
Under Votes		4,084	
Over Votes		128	

[Back to top](#)

It would be helpful for viewers if—

- a) each RCV contest were clearly indicated as RCV,
- b) there were a direct “quick link” to the round-by-round report for that contest,
- c) the meaning of the listed vote totals was explained, so that readers don't mistakenly think that they are the overall vote totals, and
- d) calls or press conferences with news media highlight the final-round totals and not just the first-round totals.

Perhaps because of this, some news reports after the election didn't seem to be aware of the existence of the round-by-round results.

For example, the Chronicle reported on the Supervisor races by reporting only on the first round totals and making no reference to the final round totals:

Sandra Lee Fewer was in the lead to replace termed-out Supervisor Eric Mar representing District One, which includes the Richmond. She had 8,247 votes or 38.6 percent of the vote. Marjan Philhour, a more moderate candidate, was close behind with 7,574 votes, or 35.5 percent.

(from <http://www.sfgate.com/politics/article/Some-S-F-races-still-days-from-being-decided-10605369.php>)

Similarly, SFist reported on the Supervisor races without giving any indication of vote totals beyond Round 1. For example—

District 1. With a current count of 38.61% of the vote, Sandra Lee Fewer appears to have beaten Marjan Philhour (35.53%) for the seat being vacated by Eric Mar.

(from http://sfist.com/2016/11/09/sf_candidate_races_ronen_crushes_ar_1.php)

If this were made clear on the results page, perhaps reporters would be more likely to report the final round totals instead of only the first round totals (and the public, in turn, would be better informed).

B.4. Ballot Instructions – RCV Contests

The instructions on the ballot for voting in an RCV contest do not tell voters that their second choice is only counted if their first choice is eliminated (and similarly for their third choice). To say this another way, additional choices are “backup” choices. They can only help the voter have their ballot count and not be exhausted.

Without this information, voters can mistakenly think that RCV is a “points-based” system and be led not to cast as effective a ballot. Under a “points-based” system, voters would have an incentive not to choose a second and third choice (because it could hurt their first choice).

See also the memo I circulated to the Commission as part of the agenda packet for the February 18, 2015 Commission meeting. It contains more information about this issue.

B.5. Main Results Page – Turnout vs. Counter Card

Currently, the results page uses the number of “counter cards” to report “turnout,” even though the number of voters is likely to be different from the number of counter cards.

If possible, it would be good to report the number of voters (e.g. from the election management system) independent of the number of counter cards.

B.6. Certification Letter – Reducing to Two

The certification letter did not “reduce to two candidates” for all RCV contests when reporting the final-round totals. For example, while the results table on the Department web page showed the results of the District 9 Board of Supervisors race up to Round 4 with two candidates, the certification letter only showed up to Round 1 with four candidates.

B.7. 1% Random Selection – Number of Rolls

While I was not able to attend the 1% random selection of precincts this election, my understanding is that it took over an hour and required over 100 rolls of three dice to select the needed precincts. This was due to needing to re-roll whenever the rolled number was outside of the desired range.

Currently, three 10-sided dice are rolled, which randomly chooses from a thousand possible numbers (by choosing from 000 to 999). Since there are 597 precincts in all, about 40% of the time the dice will be out of range. To reduce the need to re-roll, the Department could instead roll a (red) 6-sided die and two 10-sided dice (e.g. white and blue). This would randomly choose from six hundred possible numbers (by choosing from 100 to 699). With this approach, each roll would at least be much more likely to correspond to a precinct.

Another option is to use the approach described here by the famed computer scientist Ronald L. Rivest: <http://people.csail.mit.edu/rivest/sampler.py>
This approach requires rolling a large number of dice only once at the very beginning (e.g. seven rolls of three 10-sided dice). After that, all of the precincts can be determined automatically from the initial roll using a public, “open source” algorithm.

B.8. 1% Random Selection – Overhead Camera

Currently, when the dice are rolled, the dice (and the numbers on them) aren't necessarily visible in the overhead camera. This is because the table on which the dice are rolled is much larger than the camera view.

It would be possible for all rolls to be visible from the overhead camera if the rolls were confined to a smaller area within the table (e.g. within a box with low walls on the table), and having the camera focus only on that area.

B.9. Poll-worker Precinct Staffing Info – Online info not as current?

My FED (and the “Precinct Staffing and Bilingual Requirement Form” provided to inspectors) suggested that the poll-worker information online was more current than the information listed on the staffing form. However, the information online seemed outdated compared to the information listed on the printed form.

For example, for one of my poll workers, the phone number listed for him online was a phone number that he had stopped using over ten years ago, whereas the phone number on the printed form was correct. For another worker, the phone number online was for a cousin and not the poll worker. Thus, the information online and the information for the printed forms seem to be out of sync and come from different sources (with the information online not as up-to-date as the information on the printed forms).