

# **Report on 2011 SEC Election**

Ad-Hoc Election Review Committee

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## **1 Introduction**

On July 26, 2011 the Executive Committee of the UH-Mānoa Faculty Senate (hereafter SEC of the UHMFS) met to form and charge a committee (hereafter AHERC) to review the 2011 SEC election. The charge was:

- To determine whether the process from voting to final tabulation was as correct as possible.
- To provide a summary of the process from nomination to placement on the ballot, identifying related matters of fact that might be considered.

AHERC was comprised of three former senators, including one former SEC Chair and two former members of the Committee on Faculty Service (CFS), one of whom had been chair of the CFS during the transition from

paper to electronic voting. AHERC was made familiar with the issues that have been raised about the election, and was given access to the electronic database on which the election results were based.

In addition to the meeting with the SEC, the AHERC had two fact-finding meetings, including a recount of the ballots and a meeting with outgoing CFS chair Ian Pagano.

In this report we lay out our understanding of the facts of the election, based on the evidence available to us. We understand that this election has raised some issues of policy, and that there are conflicting interpretations of UHMFS documents governing election procedure. The AHERC generally considers these questions outside of our charge, though some of our statements in Section 6 can probably be interpreted as recommendations.

## 2 Election policy

Senate election policy is covered by Article II of the Senate's Rules of Order ([http://www.hawaii.edu/uhmfs/charter/rules\\_of\\_order\\_2008.pdf](http://www.hawaii.edu/uhmfs/charter/rules_of_order_2008.pdf)), hereafter *FS Rules*. On any matters not covered by this document, *Robert's Rules of Order* applies. The Senate rules give the authority for carrying out elections to the Committee on Faculty Service. The procedures for SEC elections appear in FS Rules Section 5, *Election of the Executive Committee*:

a. Nominating Elections for the Executive Committee.

After the Senate for the following year has been elected, the Committee on Faculty Service shall solicit nominations for the Executive Committee. Members can nominate themselves. The names of the nominees shall be determined by April 7. Each nominee will be asked to indicate in writing a willingness to serve and will be asked to submit a brief biography and statement of priorities by April 15. Each nominee who agrees to serve and turns in the requested material will be placed on the ballot.

b. Final Elections for the Executive Committee

Members of the Executive Committee shall be elected by secret auditable ballot from and by the Senate. Those eligible to vote are those senators who will serve during the next academic year. The Committee on Faculty Service shall conduct the election. The election is to be completed before May 7.[...]The results of the election must be certified by the Senate Executive Committee.

(The remainder of this section concerns the technical details of the electronic voting process, which was amended this year to change the algorithm used; the new procedure does not yet appear in the published FS Rules.)

The AHERC notes that the dates given (April 7, April 15, May 7) were not the actual closing dates for nominations or the election; see below.

### **3 Selection of candidates**

SEC candidates are selected by an “opt in” method; potential candidates are required to log into their UH account and choose to be a candidate. The names of those who do so are automatically added (by the computer software) to the SEC ballot. They can add a position statement at that time, or CFS can manually add a contributed statement at any time up to the conclusion of the election.

Eligibility is built into the software used; those senators who are ineligible (because they have served on the SEC within the last two years) are blocked in the software. There is no human intervention in this, except at the programming stage.

The nomination period was set at March 15-March 21. The AHERC notes that Spring Recess was officially March 21-24, and with the addition of Kuhio Day and the two weekends the campus was effectively closed from March 19-27.

The computer records show that in this election 14 senators opted in to stand as candidates, one of whom withdrew prior to the election (her name was removed from the database by the CFS chair). Of the remaining 13 only 5 included statements, all provided at opt-in time. This committee has not heard any reports that candidates who wanted to run were blocked or removed, or that candidates who wanted to submit statements were prevented from doing so. We do have a concern about access to the nominee list during the nomination period; see Sections 5 and 6.

We note that the software could have been configured to require a candidate statement; see Section 7

## 4 Election

The election for SEC officially began at 7:00 AM on March 22, and ended at 5:00 on March 28. (We discuss this choice of time frame later in this report.) Senators cast ballots through their UH login accounts, and were issued a unique 'token' which could later be used to verify the ballots. The system is set up so that each login account can cast exactly one vote during the election interval. Votes were recorded by token in a text file on the UH server, and no other information was recorded; the senator names are not recorded with their votes in the ballot file, nor is the time of voting recorded. In this SEC election 70 senators cast votes.

Immediately following the closing of the polls the CFS chair downloaded the data from the server files into a database, on which he then ran computer programs which tabulate results according to the "Instant Runoff" algorithm, as specified in the recent Senate-approved change in the FS Rules. The software used was OpenSTV (an open-source program which has been used in previous elections) and a program in SAS. The second program was necessary to process tie votes, which are not discussed in the FS Rules and were resolved in a method unanimously agreed to by CFS and detailed in their report on the election. OpenSTV does not include code to handle ties this way. In previous electronic elections in which the STV-Meek algorithm was used, the nature of the algorithm meant that ties were not an issue, and OpenSTV alone could handle the election.

CFS met on March 30 to tabulate the results. The CFS chair went over the procedure and the computer output with the rest of the committee, which then certified the result. The CFS chair then formally transmitted the results to the SEC.

The AHERC notes that in elections prior to the adoption of electronic voting, the ballots were opened and counted by the full CFS in a meeting for the purpose. When electronic voting was first introduced, the votes were still tabulated for the first time in the presence of the complete CFS (though as far as we are aware there is no requirement to do this). In this election, the CFS Chair did the tabulating prior to the meeting. Indeed, he informed us that before the election was done the Senate Assistant contacted him by telephone on behalf of the SEC and asked for preliminary results, which he transmitted to her. (While this was during their March 28 meeting, the SEC

minutes of that meeting describe the SEC election as “underway.”)

The SEC certified the election at their April 4, 2011 meeting.

## 5 Integrity of election process

Voter fraud, such as the ability to vote more than once, is prevented by tying the vote to the senator’s UH computer account, not his or her name. Each senator’s account can vote exactly once. The integrity of the vote itself is therefore as strong as the security on UH account logins (and on the accuracy of the UHMFS senator list).

The integrity of the ballots are meant to be ensured by the token system. After the election the ballots were published by token, so that any senator who had retained their token could look at the ballots and confirm that their ballot was correct.

The token system is also designed to ensure *confidentiality* of the ballots. Votes are recorded by token only; a senator’s name or voting time is not recorded. AHERC notes that the current computer system does also write a file with just the assigned tokens, and there is concern that if this list is in the same order as the list of senators then they can be matched by anyone with access to these files.

Note written by  
Ian Pagano:  
By design, the order  
of the voter list was  
randomized every  
time a new vote  
was received.

The AHERC met on July 27 to recount the votes. We did not think it likely that many Senators had retained their tokens this long, so we did not try to validate the ballots using the tokens. We were given access to the CFS Chair’s online database, and also requested a copy of the server text files from UH Information Technology. We had hoped that the latter would be time-stamped with the end time of the election, and that the file would match the database. However, the time stamp on that file was May 31, 2011; moreover the ballots file contained only 3 ballots, so it was not useful in providing independent validation of ballot integrity.

Using the ballot file in the database, AHERC carried out a manual recount using the instant runoff algorithm. (Unlike STV-Meek, this is a fairly easy algorithm to implement by hand.) We did not manually apply the CFS criteria for resolving ties. Our manual tabulation confirmed both the winners and the ranking of the alternates as certified by CFS and SEC.

The AHERC had hoped that a recount, combined with access to the raw ballot files as they were created by the election software, would allow us to

certify the result with complete confidence. Unfortunately, we learned that in the current system, the CFS has complete access to the ballot files on the server even during the course of the election. While we do not believe that the CFS chair interfered with these files, we cannot certify the integrity of the ballots beyond the confidence given by the token system. If the SEC believes it necessary, they could poll the sitting senators when the Fall semester begins and ask them to check their tokens against the ballot file to see if the ballots reflect their recollection of their vote.

## 6 Other issues

The AHERC, after our meeting with the SEC, our review of the process, and our interview with the CFS chair, do not believe there was any intent to manipulate the election. However, we believe there were some procedural snafus and process issues that could have had an effect on the outcome of the election. These are mainly the result of vagueness in the FS Rules, absence of codified process, and bad communication between the SEC and the CFS. This was exacerbated by the lack of institutional memory, which has been a problem since the retirement of the Senate's secretary in Spring 2009. (In years prior to her retirement, Charlotte was very helpful in making sure the elections took place at the appropriate times and following a standard process.)

Among the problems we have identified are the following:

**Scheduling of the election** The AHERC is concerned by the timing of the nomination process and election. There was no need for either the nomination process or the election period to be as brief as they were, and the first six days of the seven day election period occurred at a time when the campus was closed for Spring Recess. There was no obvious connection between the scheduled dates and the official deadline dates in the FS Rules (Figure 1).

AHERC is satisfied that the scheduling was an overly-efficient response by the CFS Chair to instruction from the SEC Chair to "start the SEC election as soon as possible," and not an attempt to influence the election. However, we believe that the hasty process might have had an influence on the outcome. We note that 70 senators voted, which is

a good response, but there should have been a greater opportunity to think about the candidates, or even discuss them with other senators.

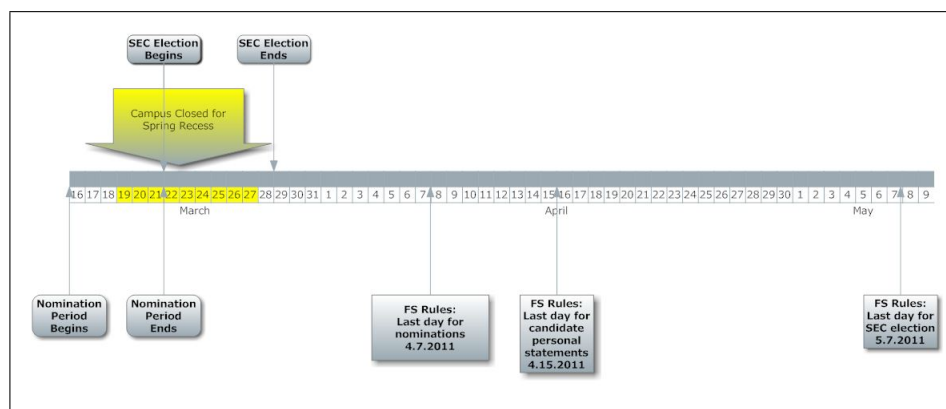


Figure 1: SEC Election Dates

**Required statements** While there appears to be room for disagreement as to whether the FS Rules *require* the provision of statements by the candidates, the AHERC believes that these statements are useful and that the extra time permitted by the FS Rules for the nomination process would have made it possible to collect more statements.<sup>1</sup> Email between the SEC and CFS chairs show that the former was surprised that statements were missing. In these same emails the CFS chair informed the SEC chair that it was possible to require statements for opting-in in the software. Unfortunately, on the day of this email the SEC chair left the state for a conference, otherwise she might have instructed the CFS chair to implement this in the software.

**Full committee participation** The emails and committee minutes we have seen indicate that some important decisions were made without full participation of the relevant committees. Examples include the schedule for the election and nomination period and the decision of whether to mandate statements, which were apparently made by the CFS chair, as described above in email conversation with the SEC chair. As one SEC member has since pointed out, “this is why the Committee on Faculty

<sup>1</sup>At least one of the candidates whose statement was absent was not aware that statements could be added at the time of opt-in.

Service is a committee and not an individual. Having the committee involved in all steps of the process should ensure fairness.” For example, when asked about the election conflict with Spring Recess, the CFS chair reminded the AHERC that he works in an ORU that is physically removed from campus and where the week is treated by the faculty like any other, so the problem of faculty being gone over the period did not occur to him. Had this been discussed in a full CFS meeting the problem would likely have occurred to one of the other committee members.

**Security of ballots** The token system for protecting the integrity of the ballots is only partially effective, as the tokens are issued to voting senators in easily-disposed electronic form and there is no paper trail for an independent audit. The file system would provide an independent source of validation for the election, but CFS access rights to these files during the election eliminates this level of protection. It should be possible to make these files inaccessible during the election, or at least to create a machine-generated secure ballot file that could be used as backup validation. For example, a file could be generated using multiple RSA keys, so that decoding can only be done with keys held by two or more SEC members.

**Conflict of interest** Questions about the apparent conflict of interest in having a candidate for an office conducting the election arose on the first day of the election. The CFS chair offered immediately to withdraw from the election, but a better solution would have been for someone else (such as all of CFS *except* the candidate) to conduct the election in the first place. While the AHERC has no evidence that the CFS chair manipulated the election in any way, the fact that questions arose shows that UHMFS needs an explicit protocol for this.

## 7 Timeline

The AHERC has compiled the following timeline of the process of the March, 2011 SEC election.

In what follows, SH=Susan Hippensteele (SEC chair), IP=Ian Pagano (CFS chair), and parenthetical words (minutes), (email), and (oral) represent



the source of the information (where oral=mentioned orally in meeting with AHERC).

- March 8
  - CFS meets. 4 of 6 committee members and SEC liaison present.
  - CFS certifies UHMFS election. (minutes)
- March 9
  - CFS transmits UHMFS election results to SEC
  - SH to IP: “your work to revise the election system has made elections much more transparent for all” (email)
  - SH suggests that IP run for SEC (email)
- March 14
  - SEC meets. All senators present except Kame‘eleihiwa, Daniel, and Cooney.
  - Certifies UHMFS election. Discusses SEC election, need for strong candidate pool. (minutes)
- March 15
  - SH instructs IP to “start the SEC election as soon as possible” (email)
  - IP informs SH/SEC “SEC election is ready to start any time” (email)
  - IP announces that candidates are sought for SEC (broadcast email to UHMFS)
  - IP announces that SEC “election will begin Tuesday, March 22nd at 7:00 AM” (broadcast email to UHMFS)
  - IP sets up election software with March 22-28 duration (IP oral)
  - (Note: no evidence that there was any consultation or meeting with CFS on this)

- SH asks IP “is there a mechanism for candidates to submit personal statements?” (email)
- IP confirms to SH that “candidates may write one when they confirm willingness to serve” (email)
- March 16
  - IP reports to SH that 5 candidates have declared, only one of whom submitted a statement (email)
  - SH asks “They do have to complete a statement in order to be on the ballot, correct?” (email)
  - SH repeats suggestion that IP run for SEC. (email)
  - IP replies that “I don’t have it set up to force candidates to write statements. I could certainly make that a requirement though.” (email)
  - SH comments “I would have thought people who wanted to run for SEC would have something substantive to say about why” (email)
  - SH leaves Hawaii for conference.
  - UHMFS meets.
  - IP reports UHMFS results, and announces SEC election and deadline for nominations. (minutes)
- March 19
  - Spring Recess “Green Days” period begins.
- March 21
  - No SEC meeting.
- March 22
  - Election begins.
  - IP announces that election will close at 5:00 on March 28 (broadcast email to UHMFS).

- (At this point there are 13 candidates and only 5 statements.)
- One senator (candidate) asks IP “When were statements elicited from SEC candidates?” (email)
- IP responds that there was a check box when opting in to run, and offers to add candidate’s statement. (email)
- Senator notes that only 5 candidates had submitted statements, and declines offer. (email)
- Another senator (not candidate or SEC) asks IP about conflict of interest. (email)
- IP responds “Thank you. I of course agree - it is a conflict of interest...I’m happy to recuse myself as a candidate upon request[...] If they deem it appropriate, I ask the SEC to distribute this message to all senators.” (email, cc’d to SEC and CFS)
- One SEC member replies by expressing confidence in IP as candidate (email)
- Another SEC member comments: “This is why the Committee on Faculty Service is a committee and not an individual. Having the committee involved in all steps of the process should ensure fairness.” (email)
- March 27
  - Spring Recess “Green Days” period ends.
- March 28
  - SEC meets. All senators present except Kame’eleihiwa, Zaleski, and Cooney.
  - SEC Elections described as “underway”. (minutes)
  - SEC contacts IP for election results approx 3:00PM (IP oral)
  - (This is response to AHERC asking IP if he’d processed results before meeting with CFS.)
- March 30

- CFS meets. 5 (of 6) members present plus SEC liaison
  - SEC election is discussed and certified.
- April 4
  - SEC meets. All members present.
  - SEC certifies new SEC election results.(minutes)