**Faculty Senate Elections**
*Voting Software Analysis*

February 22, 2021

## Security Controls with Faculty Voting Tool

On Monday, February 15, 2021, a voting faculty member expressed concern about the use of a survey tool (Qualtrics) for Faculty elections and the potential for 'Ballot Box Stuffing.' Faculty Senate leadership asked UITS to review and investigate this concern.

## General Operation and Voter Software Workflow

The faculty voting tool was created specifically for the University of Arizona Faculty Senate votes. Considerable controls were put in place, including NetID authentication, to prevent duplicate votes to maintain fair and equitable faculty elections. The tool offers vote eligible faculty the ability to submit one vote for each election they are authorized to participate in. The tool leverages the employee field of Voting Code to determine which items they have permission to view.

1) When voters arrive to the survey, they are required to sign-in to the University's WebAuth authenticator.
2) The voting survey captures the NetID and voting code associated to the voter.
3) The survey taker's NetID is compared to a list of eligible voters pulled directly from UAccess Analytics and stored in a Qualtrics contact list. One of three things occur as a result of this comparison:
   a) **If a match is found**, and the contact list **does not** show a previous submission, the voter is allowed in to submit their vote.
   b) **If a match is found**, and the contact list **does** show a previous submission, the voter will be pushed to the end of the survey with a special message stating that a vote has already been submitted.
   c) **If no match is found**, the voter is pushed to the end of the survey with a special message stating that they are not listed as an eligible voter. Contact information is provided here to reach out to the Faculty Center.

## Analysis of Duplicates Votes

After Faculty Center staff and UITS reviewed the survey, it was determined the Contact List authenticator option was selected and had been in effect since 2019, which allowed a second entry into the survey.

Due to the configuration issue, there were 12 total duplicate votes cast of the 2,848 total votes cast in the 2019-2021 elections:

- 2021 Gen Election Duplicates: Out of 757 votes – **4** duplicates found.
- 2020 Gen Election Duplicates: Out of 818 votes – **6** duplicates found.
- 2020 Runoff Election Duplicates: Out of 669 total votes – 0 duplicates found.
- 2019 Gen Election Duplicates: Out of 604 total votes – 2 duplicates found.

We know with confidence when an individual has voted more than once because all votes are connected to NetID. Removing duplicate votes for prior years would not change prior Election results.

For the most recent 2021 General Election, four of the 757 votes were duplicate votes. Removing the four duplicates does change the 2021 election outcome. The Faculty Senate Committee on Elections is developing a plan to address this change and will be communicating directly with impacted candidates.

## Recommendations for Future Elections

With the clarity of the issue and the solid track record of the survey tool prior to this specific issue surfacing, the Faculty Senate Committee on Elections in consultation with the University's Chief Information Officer, has determined the Faculty Senate will continue to use the survey tool (Qualtrics) but will take steps to prevent future incidents from occurring in the future:

- Implement a required testing session at least 1 week prior to each election release.
- The Faculty Center does apply some audit measures in the current process, but I would expand these measures to seek out duplicates and apply an agreed upon process for any findings.
- Consider allowing a third neutral entity to process results.