



FALL 2004 ASUCD SENATE ELECTION – CHOICE VOTING ANALYSIS

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Executive Summary:

ASUCD's Fall 2004 Choice Voting election accurately represented the candidate and slate preferences of the entire voting body. This is consistent with previous choice voting elections and improves over ASUCD's old "block voting" system.

In choice voting, voters rank the candidates 1, 2, 3, and so on. In the Fall 2004 election, 81% of voters elected one of their top three choices. For the second time in a row, an independent candidate was elected under choice voting. His election gave representation to a previously unrepresented demographic group.

Voter turnout increased 46% over last year's fall election. This may be attributed to strong campaigning by a broader field of 20 candidates. Choice voting makes it easier to get elected and gives candidates a greater incentive to reach out to more voters.

Acknowledgments:

Voting Solutions' ChoicePlus Pro[®] generated the two statistical reports in the Appendix. We used those reports for this analysis.

ASUCD election results are available at <http://elections.ucdavis.edu>. Choice voting and campaign coverage is available at <http://www.californiaaggie.com>.

About Davis Citizens for Representation:

Davis Citizens for Representation (DCR) is a network of Davis citizens that researches, advocates, and supports the use of multi-winner choice voting in Davis elections. DCR can be contacted at choicevoting@gmail.com.

Many political scientists, organizations, and governments alike recognize that choice voting is the most representative voting system that can be used in nonpartisan elections.



1) VOTER SLATE REPRESENTATION

In ASUCD elections, candidates often run as “slates,” or groups of candidates representing the same constituency or viewpoint. A candidate not on a slate is known as an independent candidate.

To analyze slate representation, we first tally voters’ top choices by slate. This data can be read from the first round tally at <http://elections.ucdavis.edu>. This tells us which slate each voter prefers most. We compare this breakdown to the election outcome. We include past choice voting and non-choice voting, or “block voting,” elections for comparison.

Observe that each of the choice voting elections faithfully represents an accurate cross-section of the voting body. In contrast, the three “block voting” elections listed have very lop-sided outcomes relative to the electorate.

The “before” picture for Fall 2004-05 (Choice) is remarkably similar to the “before” picture for Fall 2001-02 (Block). Similarly, the “before” picture for Winter 2003-04 (Choice) resembles the “before” picture for Winter 2002-03 (Block). The choice voting elections yielded accurate representation, while the block voting elections did not.

Figure 1 - Fall 2004-05 (Choice)

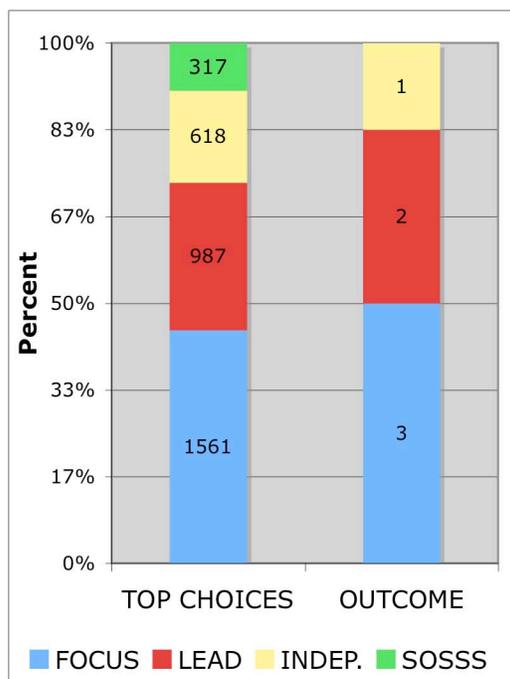


Figure 2 - Winter 2003-04 (Choice)

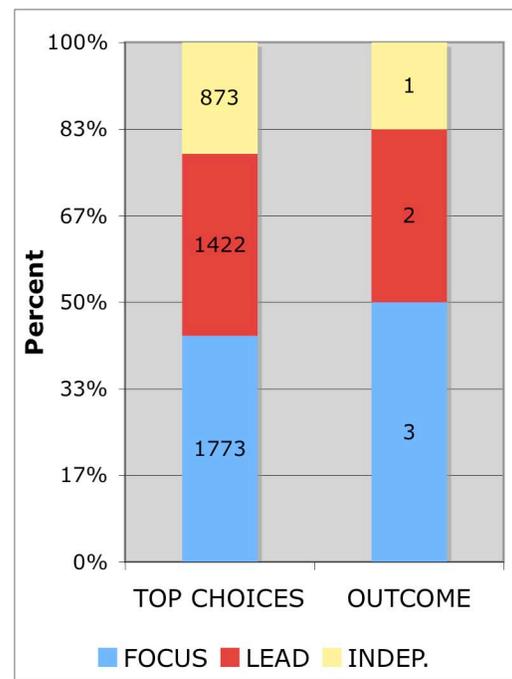


Figure 3 - Fall 2003-04 (Choice)

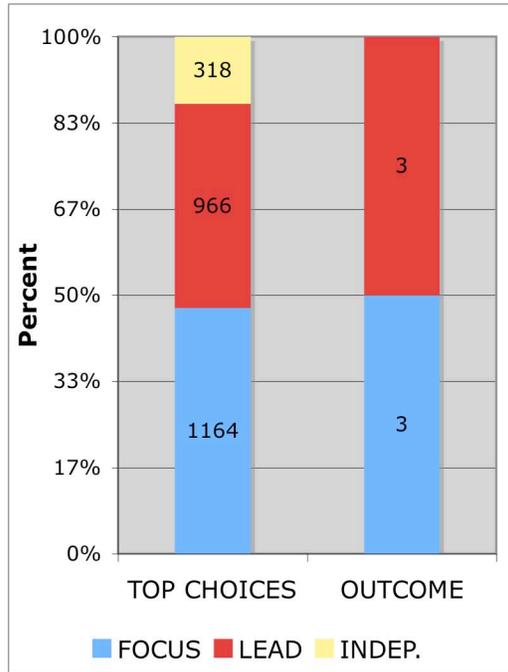


Figure 5 - Fall 2001-02 (Block)

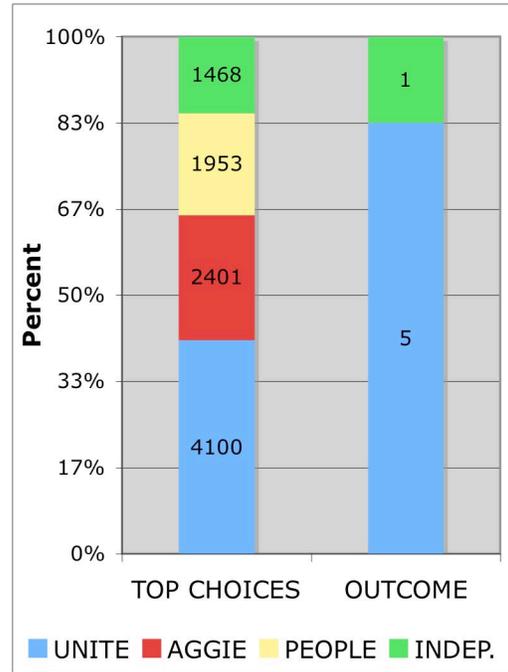


Figure 4 - Winter 2002-03 (Block)

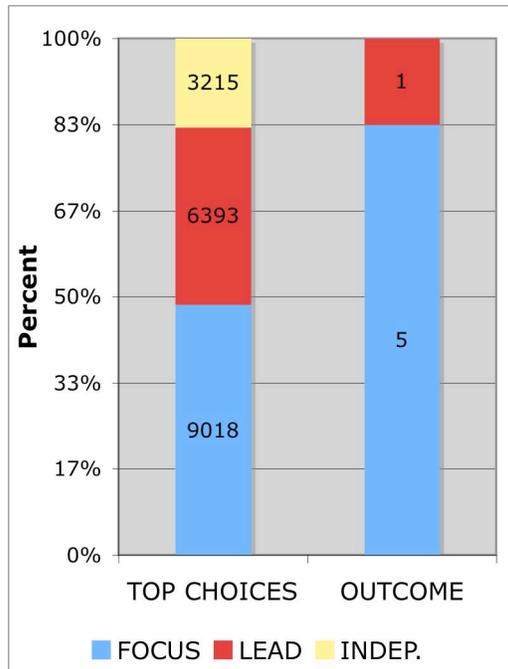
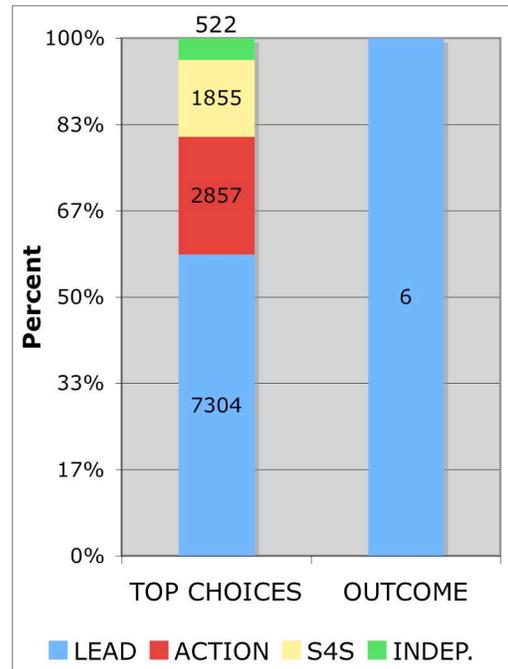


Figure 6 - Winter 2000-01 (Block)



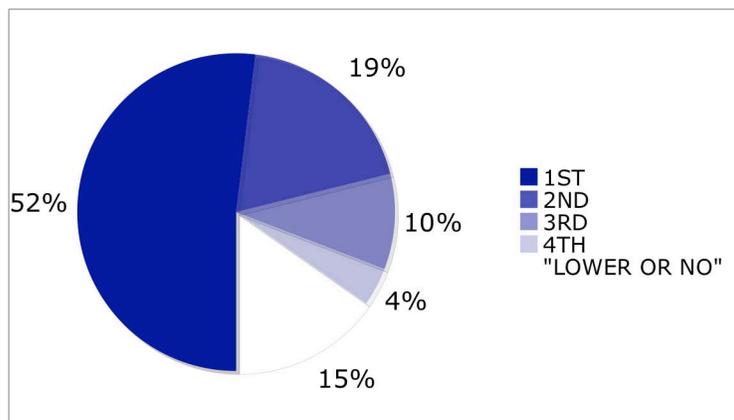
2) VOTER SUCCESS/SATISFACTION

Choice voting's primary benefit is that nearly all voters get represented. In other words, "everybody wins" a choice voting election, from the perspective of the voters. To measure this, we analyze how many voters elected one of their top choices. We do this in the below charts.

Each chart shows the percentage of voters that elected one of their top choices. "1ST" refers to the voters that elected their first choice. "2ND" refers to the voters that elected their second choice, but not their first; and so on. "LOWER OR NO" refers to the voters that elected none of their top four choices.

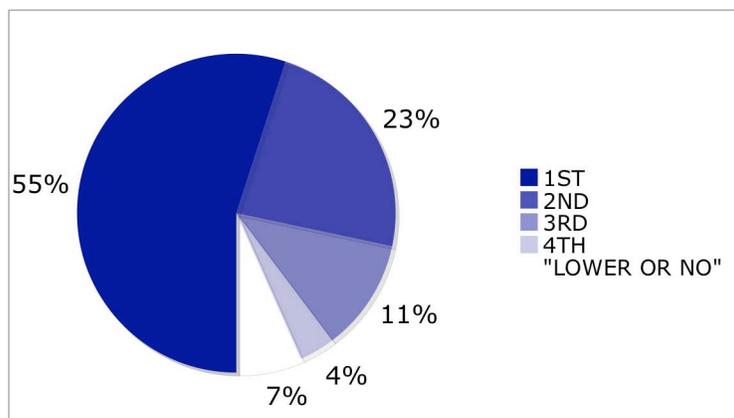
The data is taken from statistical reports generated by ChoicePlus Pro for each election. We included the statistical report for the Fall 2004-05 in the Appendix.

Figure 7 - Fall 2004-05 (Choice)



In the Fall 2004-05 election, 81% of voters elected one of their top 3 choices.

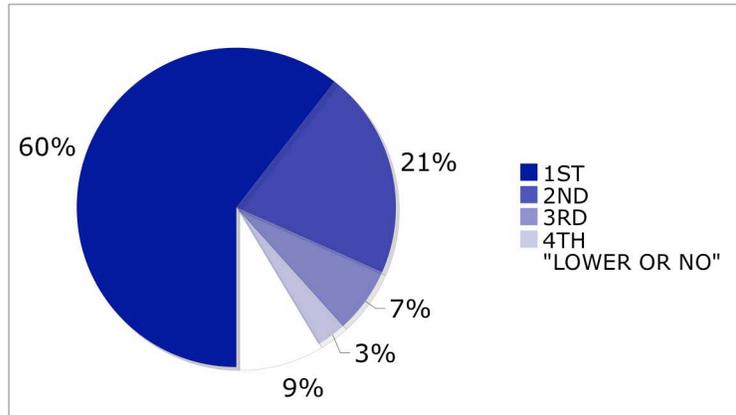
Figure 8 - Winter 2003-04 (Choice)



In the Winter 2003-04 election, 89% of voters elected one of their top 3 choices.



Figure 9 - Fall 2003-04 (Choice)



In the Fall 2003-04 election, 88% of voters elected one of their top 3 choices.

These numbers can be compared with the previous winner-take-all “block voting” system. In the Winter 2000-2001 Election, there were three slates of candidates. Each slate ran a Presidential candidate. The Presidential slate that won 52% of the vote won 100% of the Senate seats, or all 6! Thus, 48% of the voters elected none of their preferred candidates under the old system in that election.

3) VOTER TURNOUT

We include voter turnout figures here. The reader can observe the effect of choice voting on voter turnout. Note that student enrollment went down in Fall 2004-05 from the previous year.

	# VOTERS	# CANDIDATES RUNNING	
FALL 2004-05	3584	20	(CHOICE)
FALL 2003-04	2448	16	(CHOICE)
FALL 2002-03*	**6052	13	(BEFORE CHOICE)
FALL 2001-02	2294	19	(BEFORE CHOICE)
FALL 2000-01	2246	19	(BEFORE CHOICE)
WINT 2003-04	4068	14	(CHOICE)
WINT 2002-03	3008	15	(BEFORE CHOICE)
WINT 2001-02	3966	16	(BEFORE CHOICE)
WINT 2000-01	2854	14	(BEFORE CHOICE)

* "D1" INITIATIVE ON BALLOT

** APPROXIMATION, EXACT TOTAL NOT KNOWN

NOTE: WINTER ELECTIONS INCLUDE PRESIDENT AS WELL AS SENATE RACES

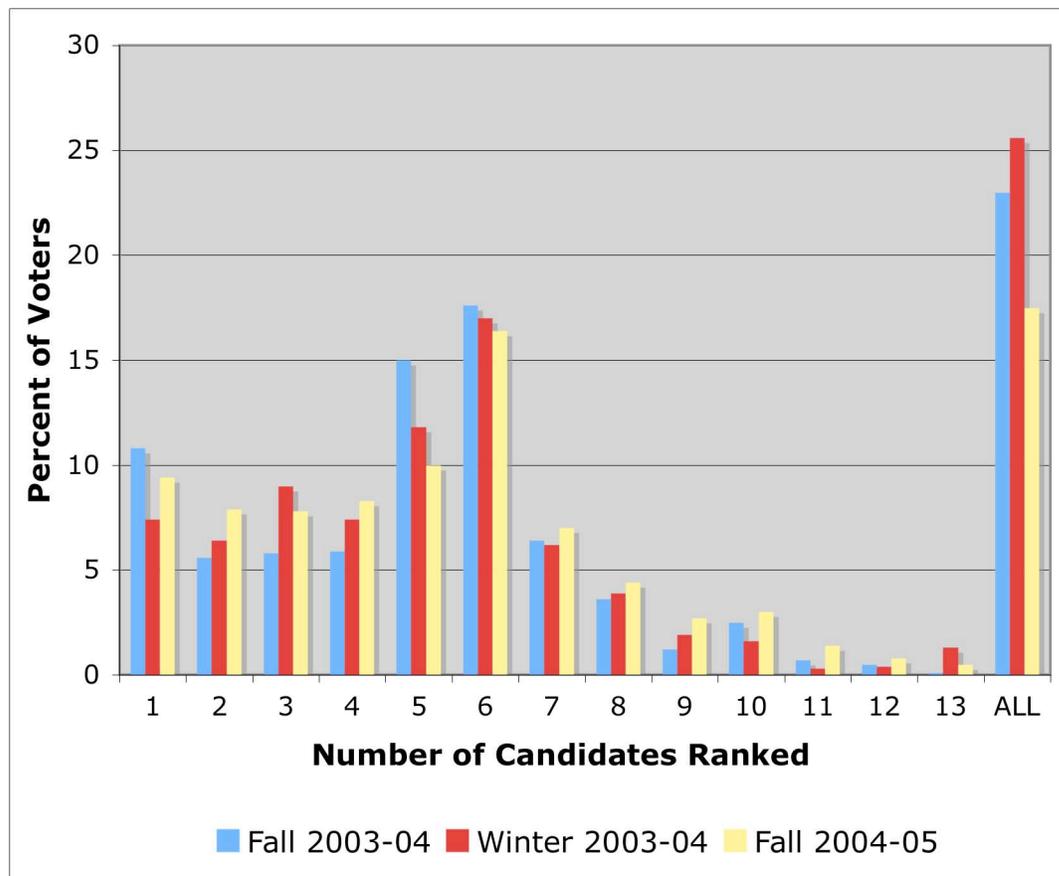


4) NUMBER OF CANDIDATES RANKED BY VOTERS

In choice voting, a voter can rank as many or as few candidates as they want. Ranking more candidates does not hurt a voter's higher ranked candidates. This is because a vote counts toward a voter's lower ranked candidate only after all higher ranked candidates have been either elected or eliminated.

The following graph shows how many candidates all voters ranked in the past three choice voting elections. Around 20-25% of voters rank all candidates. About 17% rank only 1 or 2 candidates.

The Fall 2004-05 Election saw a greater percentage of voters ranking between 7 and 12 candidates. A vote is more likely to count towards a winner when more candidates are ranked. This may indicate a better understanding of the choice voting system.





APPENDIX

Here is the statistical report for the Fall 2004-05 ASUCD Election generated by ChoicePlus Pro.

VOTING DEPTH

This report shows how many candidates voters ranked.

0.0 voters ranked 0 candidates -- 0.0%.
336.0 voters ranked 1 candidates -- 9.375%.
284.0 voters ranked 2 candidates -- 7.924107142857142%.
281.0 voters ranked 3 candidates -- 7.8404017857142865%.
299.0 voters ranked 4 candidates -- 8.342633928571429%.
359.0 voters ranked 5 candidates -- 10.016741071428571%.
589.0 voters ranked 6 candidates -- 16.434151785714285%.
250.0 voters ranked 7 candidates -- 6.975446428571429%.
157.0 voters ranked 8 candidates -- 4.380580357142857%.
95.0 voters ranked 9 candidates -- 2.650669642857143%.
106.0 voters ranked 10 candidates -- 2.9575892857142856%.
50.0 voters ranked 11 candidates -- 1.3950892857142858%.
29.0 voters ranked 12 candidates -- 0.8091517857142858%.
19.0 voters ranked 13 candidates -- 0.5301339285714286%.
24.0 voters ranked 14 candidates -- 0.6696428571428571%.
11.0 voters ranked 15 candidates -- 0.30691964285714285%.
10.0 voters ranked 16 candidates -- 0.27901785714285715%.
4.0 voters ranked 17 candidates -- 0.11160714285714285%.
15.0 voters ranked 18 candidates -- 0.4185267857142857%.
38.0 voters ranked 19 candidates -- 1.0602678571428572%.
628.0 voters ranked 20 candidates -- 17.522321428571427%.

VOTING SUCCESS

This report shows how many voters successfully elected their #1 choice, their #2 choice (but not their #1), their #3 choice, etc.

3584.0 votes.
1864.0 voters elected their #1 choice -- 52.00892857142857%.
685.0 voters elected their #2 choice -- 19.112723214285715%.
348.0 voters elected their #3 choice -- 9.709821428571429%.
139.0 voters elected their #4 choice -- 3.8783482142857144%.
88.0 voters elected their #5 choice -- 2.455357142857143%.
47.0 voters elected their #6 choice -- 1.3113839285714286%.
31.0 voters elected their #7 choice -- 0.8649553571428572%.
19.0 voters elected their #8 choice -- 0.5301339285714286%.
15.0 voters elected their #9 choice -- 0.4185267857142857%.
9.0 voters elected their #10 choice -- 0.25111607142857145%.
0.0 voters elected their #11 choice -- 0.0%.
2.0 voters elected their #12 choice -- 0.055803571428571425%.
0.0 voters elected their #13 choice -- 0.0%.
0.0 voters elected their #14 choice -- 0.0%.
0.0 voters elected their #15 choice -- 0.0%.
0.0 voters elected their #16 choice -- 0.0%.
0.0 voters elected their #17 choice -- 0.0%.
0.0 voters elected their #18 choice -- 0.0%.
0.0 voters elected their #19 choice -- 0.0%.
0.0 voters elected their #20 choice -- 0.0%.
337.0 voters did not elect any candidates -- 9.402901785714286%.