Fair Voting in the United States
Choice Voting, One Vote System, Cumulative Voting and the Free Vote

A voting system for a legislative assembly translates peoples' votes into seats. Many different systems exist. Because the same votes in different systems can produce different results, the selection of a voting system has a powerful impact on governance, representation and voter participation. The winner-take-all system that the United States uses to elect its House of Representatives, in which the plurality winner in each single-member district is elected to Congress, leaves millions of Americans without true representation, increases partisan polarization in Congress and limits participation in our politics.

Fair voting systems are based on the one-person, one-vote principle. Like-minded groupings of voters – as defined by how they vote – are likely to win seats in proportion to those voters' share of the popular vote. A majority of voters will elect a majority of seats, but not all seats. The result is that more voters consistently elect at least one candidate of their choice than in winner-take-all voting. Candidates are elected at-large or in multi-seat "super districts" (constituencies electing more than one representative).

Nearly all democracies use versions of fair voting (also called "proportional representation"). The one vote system, cumulative voting, choice voting and the free vote are examples of fair voting systems. Each system is based on voting for candidates in legislative districts with more than one seat. The one vote system, cumulative voting and choice voting are currently used in the United States at a local level. Choice voting is particularly likely to provide fair results to minority and majority populations, but may require changes in how elections are administered.

The One Vote System

In the one vote system, voters cast a vote for one candidate in a multi-seat legislative district. Opportunities for fair representation increase with an increase in the number of seats. The one vote system can be modified to give voters more than one vote: the more votes they have, the higher the percentage of the vote it takes for like-minded voters to win a seat. The one vote system and variations where voters have more votes are used for city council elections in Philadelphia (PA), Hartford (CT) and many smaller U.S. jurisdictions. It has been used successfully to resolve at least 25 Voting Rights Act cases since 1987.

Example: In a race to elect five candidates, voters would cast one vote. The winning candidates are the five candidates with the most votes.

Cumulative Voting

In cumulative voting, voters cast as many votes as there are seats. Unlike in winner-take-all elections, voters are not limited to giving one vote to each candidate. Instead, they can put multiple votes on one or more candidates. In the simplest form of cumulative voting, voters can vote for up to as many candidates as there are seats (as with winner-take-all), and their votes are allocated equally to the candidates they have selected. In a 5-seat race, voters selecting 2 candidates would provide each candidate with 2.5 votes.

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Cumulative voting was used to elect the Illinois state legislature from 1870 to 1980. In recent decades it has been used to resolve voting rights cases for elections in Peoria (IL), Chilton County (AL), Sisseton (SD), Port Chester (NY), Amarillo (TX), and more than fifty other jurisdictions in Texas. In general, voter turnout has risen in these communities, and in most cases, a candidate from the protected minority was elected once cumulative voting was used.

Example: In a race to elect five candidates, voters cast one vote for five candidates, five votes for one candidate or a combination in between. Candidates win by a simple plurality of votes.

Choice Voting

Choice voting (also called "ranked choice voting", "single transferable vote", "preference voting" and "proportional representation") is a form of the one vote system in which voters maximize their vote's effectiveness through ranking choices. Choice voting can be used in both partisan and nonpartisan elections; in partisan elections, it gives jurisdictions the option to eliminate primaries. Given that it is very likely to provide fair results for like-minded voters, it is recommended as the best system for local government elections when there is the capacity to produce voter education materials and count the ballots efficiently.

To vote: Voters rank candidates in order of choice, indicating a "1" for their first choice, a "2" for their second choice and so on. Voters can rank as few or as many candidates as they wish, knowing that a lower choice will never count against the electoral chances of a higher choice.

To determine winners: The number of votes necessary for a candidate to win is determined by a formula using the numbers of seats and ballots: 1 + (1/1+# seats). In a winner-take-all race for 1 seat, this formula means 50% plus 1. In a race to elect 3 seats, the winning threshold is one vote more than 1/4th of the vote – a total that is mathematically impossible for 4 candidates to reach.

After counting first choices, candidates who meet the winning threshold are elected. To maximize the number of voters who elect someone, "surplus" ballots beyond the threshold are added to the totals of remaining candidates according to voters' next-choice preferences: in the most precise method, every ballot is allocated to the next choice candidate on each ballot at an equally reduced value.

After allocating all surplus ballots, the candidate with the fewest votes is eliminated. Ballots cast for that candidate are allocated to other candidates at full value according to the next-choice preference on each ballot. This process of allocating surplus votes and eliminating last-place candidates continue until all seats are filled. Computer programs have been used to conduct the count, although the ballot count can be done by hand.

Choice voting has been used for city council elections in Cambridge (MA) since 1941 and is used for local elections in Minneapolis. It is used by all voters in government elections in Australia, Ireland, Malta, New Zealand, Northern Ireland and Scotland. Cambridge (where the population is less than 15% black) has had black representation on its city council since the 1950s; choice voting in other cities - like New York in the La Guardia era – also resulted in fair racial, ethnic and partisan representation

Example: The chart below illustrates a partisan race with choice voting, with 6 candidates running for 3 seats: Jones, Brown and Jackson are Democrats; Lorenzo, Murphy and Smith are Republicans. With 1,000 voters, the threshold of votes needed to win is 251: (1,000/4) + 1.

Candidate	1st Count *Jones wins*	2nd Count *Jones' surplus votes added to vote totals of 2nd choice*	3rd Count *Smith's votes added to totals of next choice*	4th Count *Jackson's votes added to totals of next choice*	5th Count *Brown's surplus votes added to vote totals of 2nd choice*
Brown (D)	175	+10 = 185	+ 10 = 195	+150 = **345**	- 94 = **251**
Jones (D)	**270**	-19 = **251**			
Jackson (D)	155	+ 6 = 161	+ 6 = 167	- 167 = 0	
Lorenzo (R)	130	+ 2 = 132	+ 75 = 207	+ 14 = 221	+ 44 = **265**
Murphy (R)	150	+ 0 = 150	+ 30 = 180	+ 3 = 183	+ 5 = 188
Smith (R)	120	+ 1 = 121	-121 = 0		
No Candidate	-	-	-		+ 45 = 45

Democrats Brown and Jones and the Republican Lorenzo win seats, with over 75% of voters directly helping to elect one of these three candidates. Having won the support of 60% of voters in the first round, Democratic candidates almost certainly would have won all three seats with a winner-take-all, at-large system. They also would have won three seats with a limited vote system (and likely with cumulative voting) because of "split votes" among Republicans. Despite greater initial support, Murphy ultimately loses to Lorenzo because Murphy is a polarizing candidate who gains few additional votes from backers of other candidates. Of 345 voters who elected Brown in the fourth count, 45 did not rank Lorenzo and Murphy, which "exhausts" their ballots.

The Free Vote

In the free vote, the voter casts a vote for one candidate in a partisan election where candidates run with party affiliations. Your vote counts for both the candidate and for that candidate's party. Seats are allocated first to parties and independent candidates in proportion to their share of the vote. For example, if 51% of voters support candidates from a particular party in a district that has five seats, that party will earn three out of five seats. That party's share of three seats would be filled by its three nominees who received the most individual votes. Individual candidates – whether running in a party or as independents – are certain to win if their vote total is higher than "the winning threshold."(In a three-seat district, that winning threshold is just over 25% of the vote, as only three candidates can mathematically reach that threshold.)

The free vote is used in Finland, not in any elections in the United States. Several other nations use similar party list forms of proportional representation, but usually without the same freedom for voters to determine which individual candidates are elected from a party's list of nominees.

Example: In a race to elect 5 candidates, voters cast 1 vote for candidate. Seats are allocated to independents and parties in proportion to their voting strength. A party or independent candidate receiving about 17% of the vote would be guaranteed to win 1 of the 5 seats. A party winning more than 50% of the vote would win three of five seats. A party's share of seats would be filled by its individual candidates who garner the most votes.