Procedures for a Hand-Counted Choice Voting Election

Important!
- Follow these procedures **exactly**.
- Before you begin counting a real election, read over all of these procedures, and count a mock election for practice.
- Note that there is a "troubleshooting" section to explain what to do in certain cases. Be sure you read this, too.
- If you have any questions at all, call for assistance. Numbers to call are listed on page 4.

Materials needed
- Pencils, and a pen with red ink.
- A blank Choice Voting Results Form (one is included with these instructions)
- A calculator.
- Scratch paper can be useful

Creating the Ballots
On the ballots, list each candidate with enough space for a voter to put a number by his/her name. The instructions should to the voters should say:

> "Rank each candidate in order of preference -- #1 to your favorite candidate, #2 to your second favorite, etc. *Do not give the same ranking to more than one candidate.* You can rank as many or as few candidates as you like, but it is to your advantage to give a ranking to as many candidates as you can."

An Overview of How a Choice Voting Election is Counted
A Winning Threshold is calculated. For example, if there were 100 votes and five seats to fill, the Threshold would be 20 votes.

The election is counted in rounds. In each round, votes are transferred to Continuing candidates (candidates that aren't yet officially declared Elected or Defeated). The election is basically a process of elimination – when there are only enough candidates left to fill the seats, they are the winners, and the election is over.

Each candidate has a pile of ballots. A ballot is put in a candidate's pile when s/he is the highest ranked candidate on the ballot. Whenever candidates achieve the Winning Threshold, then they are declared Elected. At the end of each round, the candidate with the fewest number of votes is declared Defeated, and his or her votes are transferred to the remaining Continuing candidates.

Continuing Candidates, When Candidates are Elected and Defeated
Anytime a candidate reaches the Winning Threshold, s/he is immediately declared Elected. Candidates who are Elected can no longer receive any more votes – they already have enough.

Any candidates that are declared Defeated can not receive any more votes.

Candidates that aren't Elected or Defeated are called "Continuing" candidates – they are the only ones that can ever have ballots transferred to them.

Counting the Election

Step 1. **Use the Results Form**
Record the basic information, such as the candidates' names, etc., on the Results Form.

Step 2. **Shuffle Ballots**
Shuffle the ballots. Mix them up in a paper bag, for example.

Step 3. **Number Ballots**
Take each ballot out and number it in red ink in the upper right hand corner. This is so you can repeat the count if you need to. You will sort the ballots in this order. Write the total number of ballots on the Results Form.

Step 4. **The Winning Threshold**
Calculate the winning threshold -- how many votes a candidate needs to be elected. To do this, divide the number of votes by the number of seats you have to fill, and then drop any fractions. For example, let us say that you had 85 votes to fill 7 seats on your Board of Directors. The winning threshold would be 12, because 85 divided by 7 is 12 and 1/7. We drop the 1/7, and the winning threshold is 12, in this example.
Exception 1: If you are electing only one person, e.g. the group's President, then the threshold is a simple majority of the votes.
Exception 2: In certain extremely rare cases, this threshold does not work properly, due to the rounding. To check it, divide the number of votes by the threshold you calculated, rounding down. The result should be the number of seats to be filled. If it isn't, see Troubleshooting, item #10.
Record the Winning Threshold on the Results form.

Step 5. **Start Sorting Ballots**
Take each ballot one at a time, and transfer it to whomever has the #1 ranking on the ballot. You will make a pile of ballots for each candidate – each pile holds all of their ballots. Remember that only Continuing candidates can ever get ballots – as soon as anyone reaches the Threshold they are immediately declared Elected, so don't give them any more ballots. Instead, give the ballot to whomever the voter put down as his/her next choice. Keep this up until all the ballots are distributed. Record the results of this count in the "1st Round" column of the Results Form.

Step 6. **Election Finished?**
The election will be finished when you have enough winners, or when you have only the right number of people left. Most likely, at this point, after having only looked at the first choices, you've elected 1-3 people, but you haven't filled all the seats. So go on to Step 7.

Step 7. **Transfer from the Weakest Candidate**
Find the candidate that has the fewest number of votes. Declare that candidate Defeated. Defeated candidates can't have any ballots – so transfer those ballots to whichever Continuing candidate has the next highest ranking on each ballot. As always, once someone has enough votes in their pile, they are immediately declared Elected.

Record the results of this round on the Results form.

Note: If there is a tie for the last position, here is how you break it. Whoever had the most votes in the last round wins the tie – the other person is defeated. If they had the same number of votes in the last round, then check the previous round, etc. If they've had the same number of votes the whole election, then you just have to flip a coin, draw names from a hat, etc.
Ties are not uncommon in very small elections, so you do need to be prepared to handle them.

Step 8. **Keep Transferring Until Finished**
Continue transferring ballots from the candidates with the fewest number of votes (Step 7) until you have enough winners, or until there are only the right number of people left. At that point the election is over. Easy as pie!

TROUBLESHOOTING

Of course, not everything goes perfectly every time. Here are some questions and answers.

1. *We made a mistake and gave someone too many ballots. What should we do?*
   Just take the extra ballot off the top of the pile and transfer it to the next Continuing candidate that has the highest ranking on that ballot.

2. *What should we do with blank ballots?*
   This is unusual in private elections. But if it should happen, don't number or count these at all. Don't include them in your calculation of the winning threshold either.

3. *One person only ranked one candidate on his/her ballot, and that person didn't win. When we transfer this ballot, where does it go?*
   In this case, you need an "Exhausted" pile. This pile is for ballots that you can not give to any Continuing candidate.

4. *Toward the end of the election, we had a number of exhausted ballots. There was one seat to fill, but clearly neither of the last two candidates would reach the winning threshold. What do we do?*
   This is actually pretty common. The winner of the last seat will be whomever has the most votes, even if s/he hasn't reached the threshold. This person has won by the process of elimination, and deserves the seat because s/he is one of the strongest candidates, overall.

5. *One candidate who lost got very excited and claimed that we did the count wrong. Is there some way to do a recount?*
   Certainly. Just take the ballots back, and sort them by the ballot numbers you put on them, in red ink, in Step 3. Then do the count again. Also, you have the Results chart to document exactly what happened in the count. This is especially helpful in these sorts of situations.

6. *What should we do when voters put the same ranking for more than one candidate?*
   Ignore that ranking, and move the ballot along based on subsequent rankings.

7. *We had trouble reading what number someone put down. What should we do?*
   Usually, two or three people can get together and figure out what the voter meant. If necessary, you may want to appoint one person, or three people, as Election Referees to make final judgement calls in these situations. But that isn't usually necessary.

8. *What if a voter skips a ranking, putting down a #1 and a #3, but no #2 ranking?*
   Not a problem. Whenever you transfer ballots, they go to the highest ranking that is still a Continuing candidate.

TROUBLESHOOTING (Cont.)

9. *I think I know a better way to do this count. Why don't we do it my way?*
There are many different variations that can be used in a Choice Voting election. The Winning Threshold can be calculated differently. You can allow Elected candidates to receive more votes and then choose one of many different rules on how to transfer the surplus votes. You can break ties differently. Etc.
It is OK to use any of these variations, **if you know exactly what you are doing!**
Our advice is to follow the procedures we recommend, to the letter, unless you check with us first to make sure that the variation you have in mind is actually valid. A number of times we've had counters who thought they knew a better way, but they really didn't, resulting in some embarrassing recounts.

10. *Our threshold did not come out correctly. What do we do now?*
That depends why it didn't come out correctly. There are two different solutions to this problem. Let us say that the threshold is too low. E.g., you have 24 votes, and 7 seats to fill. The calculated threshold is 3. However, 24 divided by 3 is 8 – theoretically 8 people could win, if they each got exactly three votes. In this case, we recommend you just keep your threshold of 3 votes, and declare the **first** seven candidates to reach the threshold the winners.
If the threshold is too high, you need to have a different solution. E.g., let us say that a city council wanted to use PR to appoint a committee. The city council has five members, but the committee has 21 members. The calculated threshold will be 1, which is too high – only 5 people can be chosen, you see. In this case, the solution is to give each voter 5 votes, instead of just one vote. Go to a copy machine, and make 5 copies of each ballot. Then administrate the election – this time the threshold of one vote will work OK – again, the first 21 people to reach the threshold are the winners.
By the way, if you are running into this sort of situation, we recommend you use a computer – it will use a fractional threshold, like 3.4 in the first case of 24 voter and 7 seats to fill, or .238 in the second case, where there are only 5 votes, but 21 seats to fill.

SUPPORT

If any other questions come up that are not answered here, call one of these numbers for help:

Californians for Electoral Reform: 510/527-8025
Center for Voting and Democracy, Western U.S Office: 415/665-5044
Center for Voting and Democracy, Headquarters: 301/270-4616

Is your organization recognized as one that uses Choice Voting or IRV? You can check the list at CfER's web page (cfer.org). If you aren't listed there, send us an email, and we'll list you!

COMPUTERIZED COUNT

Do you want to use a computer program for your count? With a computerized count, once you have it properly configured all you have to do is type in the candidates and ballots, and let the computer do the count. A free service offering this on the web is at demochoice.org. This software can also be downloaded and run on a laptop. A program called "PRMaster" is available for a reasonable price from Initiative Computing (510/654-7818, initcomp.com). To use PRMaster you need a computer (preferably a portable computer), and someone that is pretty comfortable technically – PRMaster is powerful and very fast, but not that user-friendly.

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