

Extra Credit Vote Instructions

The poll you create must have at least 5 candidates, and must ask a substantive question (I will not accept polls such as “Rank these movies” or “List these fruits in order of preference”). You will earn more extra credit if the poll results in NO Condorcet candidate. You must have between 20 and 30 people vote in your poll. Read all of the following instructions carefully! To create the poll go to the website: http://civs.cs.cornell.edu/civs_create.html

Enter your name as supervisor, and your email so that you can control the poll.

Be sure to check the following two options (if you don't, you can't get any credit for the assignment):

Make this a public poll and **Enable detailed ballot reporting**

In your description of the poll, ask the voters choose a first, second, third, fourth, and fifth choice, and not make any ties. If there are too many ties in your results, your grade will suffer. When you list your candidates on the site you should not attach a number or letter to them (the site will do that for you when you see the results). Once the poll is created, you must click to start the poll, and you will receive an email with the URL that you can send to the voters. In your email, you may want to tell the voters not to cast their ballots on the same computer (nor using the same wireless connection) as other voters, since the site prohibits multiple votes from one IP address. You can also describe the ballots, and how you don't want them to submit any ties. After the ballots are cast, you must click to end the poll, and then click to get the detailed results which you will need to do your analysis.

You should hand in a **single piece of paper**, 8.5 by 11 inches, double-sided (no staples, no tape, no glue), with the individual ballots of the poll and the 1-1 comparisons from the website (you can use screen capture). Your analysis of the poll can be handwritten in the blank space on that sheet of paper. If you hand in a vote on more than one piece of paper, you will get less extra credit (if needed, you can use a copier to reduce the size of the results, leaving more blank space for your work). **Don't forget to put your name on the paper**, and check your work... I will count off for mistakes.

Here's everything I want you to do to analyze the election:

- make a key, giving each candidate a letter, and mark any ties in the detailed ballots
- create a preference schedule from the detailed ballot report, **excluding any ballots with ties**
- list the one-to-one comparisons, using the format A:B 16:12
- create the graph with margins, and find the Smith set
- state whether or not majority and Condorcet candidates exist, and if so, find them
- find the winner(s) using plurality, runoff, elimination, and Coombs (show some work for each method)
- find the winner(s) using pairwise, including a check on the total number of pairwise points
- find the winner(s) using beathpath (showing the necessary disqualifications, with the strengths)

I expect you will do a rough draft of your work, and then produce a final version that is neat and concise. You can see examples from previous students on the course website (but note that these examples may include rankings, which you are not required to do, and there are perhaps other differences).

You are welcome to work in small groups for this assignment, but if you do so I would require something extra. Perhaps a 6th candidate, or more voters, or that you do Borda or some other voting method. You must communicate with me before you conduct your poll so that we can agree on the extra element.

Hand me the single sheet of paper. Do not put it in your quiz folder.

Due date: The day of the first lecture on weighted voting. I will consider extensions, but you must communicate with me by that date so that we can agree on a due date.

Grading Scheme

Setup of poll (30):	substantive question	(10)
	$n > 5$	(10)
	$N > 20$	(10)
Presentation (40):	1 sheet of paper, no glue, no tape, no staples	(10)
	detailed ballots from website	(10)
	1-1 comparison results from website	(5)
	beatpaths results from website	(5)
	few ties, and they are marked	(5)
	organized and legible, question and key	(5)
Analysis (80):	preference schedule and 1-1 comparisons	(15)
	graph with margins	(12)
	Smith set	(5)
	statement about Majority candidate	(2)
	statement about Condorcet candidate	(2)
	credit for no Condorcet candidate?	(10)
	plurality winner(s)	(3)
	runoff winner(s)	(4)
	elimination winner(s)	(6)
	Coombs winner(s)	(6)
	pairwise winner(s)	(6)
	beatpath winner(s)	(6)
	check on pairwise points	(3)

The total grade is 150 possible points. I will scale this grade when I compute your course grade, so that the extra credit is worth a value of about two quizzes.