Team A II.4

One really interesting thing that you may be able to address in this survey is the assertion by some politicians that the politics of faculty and students are different, and generally students become more like faculty as they experience more years of school (usually right wing politicians claim that universities indoctrinate students to be left wing). Just recording the political views of faculty and of students in various years gives a possible way to test this claim....

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K. looks fine. Think abuot Cbook's coverage error as a frame for faculty . See handout Tues on stratified sampling with cbook.
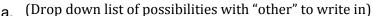
K. Sampling Scheme

- We will perform a stratified simple random sample without replacement of the CMU community for our project. We are doing this because the CMU population contains different populations that we would like to sample. So, we would like to stratify each of these groups to make comparisons between them as well as to make sampling a little bit easier by reducing the sample size. The specific strata we will use will be one for full-time students and another for full-time faculty of CMU. We will use the student section of the C-Book to sample students and the faculty section to sample faculty. Each member of each group will be assigned numbers by us based on their listing in the C-Book (alphabetical by last name) and we will then use minitab to generate random numbers to sample based on the sample size we choose for each strata. We will then match the randomly chosen number with the student or faculty member it was assigned to and contact that person through email with a link to our survey.

L. Questionnaire

Background Questions:

1. What year were you born in?
   a. (drop down with 1930-2000 or four digit open answer)
2. Please specify your race/ ethnicity (check all that apply):
   a. American Indian or Alaska Native
   b. Asian
   c. Black or African American
   d. Native Hawaiian or Other Pacific Islander
   e. White
   f. Hispanic and/or Latino
   g. Other_____
3. What is your religious affiliation?
   a. (enter text)
4. What is your gender?
   a. Male
   b. Female
   c. Other
5. What is your primary major/ department?
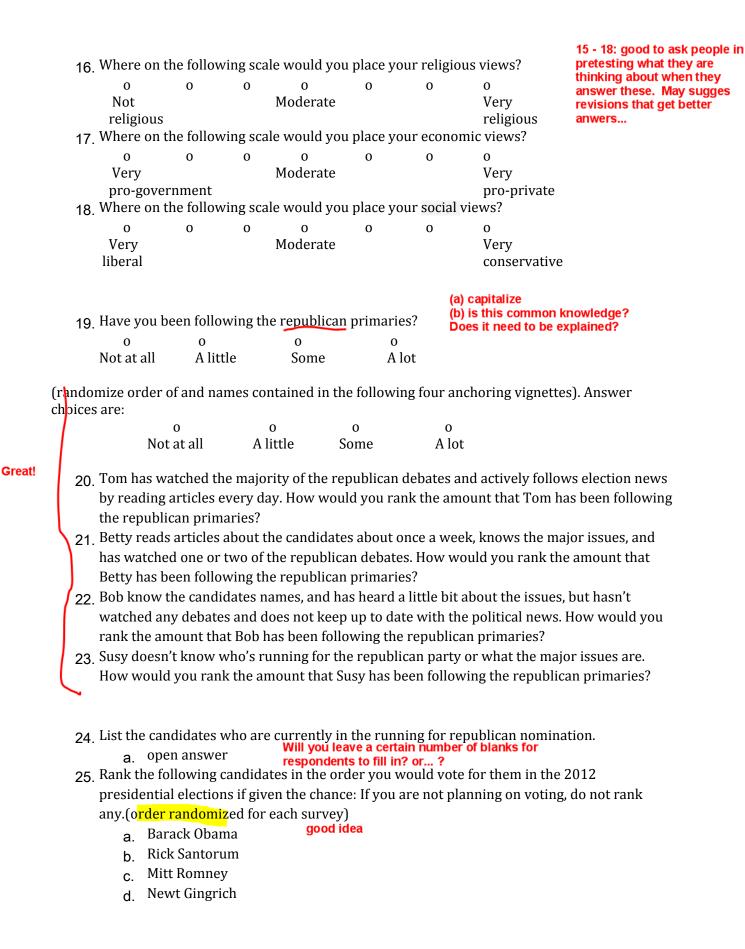   a. (Drop down list of possibilities with "other" to write in)
6. What is your current status at CMU?

Be careful to word this in a way that both faculty and students will feel like they can & should respond.

a. 1st year undergraduate student (freshman)
b. 2nd year (sophomore)
c. 3rd year (junior)
d. 4th year (senior)
e. 5th + year
f. Master's Student
g. PhD Student
h. post doctoral student
i. Faculty/teaching
j. Staff/administration

7. What is your approximate GPA? (drop down with 2 digits)(Only students)

8. Are you a US Citizen?
a. Yes/No

9. In which state did you spend the majority of your life? (drop down with US states, and a choice of outside the US)

10. How much do you have to worry about financial issues?

o   o   o   o   o   o   o
Daily   Occasionally   Never

11. How much do you have to worry about employment issues?

o   o   o   o   o   o   o
Daily   Occasionally   Never

Political Questions:

11. Are you eligible to vote in the US?
a. Yes/No

12. Have you previously voted in a US presidential election?
a. Yes/No

13. Who did you vote for in the 2008 presidential election?
a. Nobody
b. Barack Obama
c. John McCain
d. Ralph Nader
e. Other_____

14. What political party do you most strongly associate with?
a. Democrat
b. Republican
c. Independent
d. Green Party
e. Other_____

15. Where on the following scale would you place your political views?

o   o   o   o   o   o   o
Very   Moderate   Very
liberal   conservative

16. Where on the following scale would you place your religious views?

o   o   o   o   o   o   o
Not   Moderate   Very
religious   religious

17. Where on the following scale would you place your economic views?

o   o   o   o   o   o   o
Very   Moderate   Very
pro-government   pro-private

18. Where on the following scale would you place your social views?

o   o   o   o   o   o   o
Very   Moderate   Very
liberal   conservative

19. Have you been following the republican primaries?

o   o   o   o
Not at all   A little   Some   A lot

(randomize order of and names contained in the following four anchoring vignettes). Answer choices are:

o   o   o   o
Not at all   A little   Some   A lot

20. Tom has watched the majority of the republican debates and actively follows election news by reading articles every day. How would you rank the amount that Tom has been following the republican primaries?

21. Betty reads articles about the candidates about once a week, knows the major issues, and has watched one or two of the republican debates. How would you rank the amount that Betty has been following the republican primaries?

22. Bob know the candidates names, and has heard a little bit about the issues, but hasn't watched any debates and does not keep up to date with the political news. How would you rank the amount that Bob has been following the republican primaries?

23. Susy doesn't know who's running for the republican party or what the major issues are. How would you rank the amount that Susy has been following the republican primaries?

24. List the candidates who are currently in the running for republican nomination.
   a. open answer

25. Rank the following candidates in the order you would vote for them in the 2012 presidential elections if given the chance: If you are not planning on voting, do not rank any.(order randomized for each survey)

   a. Barack Obama
   b. Rick Santorum
   c. Mitt Romney
   d. Newt Gingrich

e. Ron Paul

f. Other_____

26. How do you feel about the state of the US Education System?

o   o   o   o   o   o   o

Very Ineffective   Moderately Effective   Very Effective

again good to get pretesters to tell you what they are thinking or what seems confusing or unclear as they answer these

27. How do you feel about the state of alternative energy research (e.g. solar, wind, geothermal, biofuel)?

o   o   o   o   o   o   o

Sub-par   Adequate   Excellent

28. How representative of the average person do you think Congress is?

o   o   o   o   o   o   o

Not Very Representative   Moderately Representative   Very Representative

29. How representative are the interests of Congress of the average person?

o   o   o   o   o   o   o

Not Very Representative   Moderately Representative   Very Representative

30. Rank the following issues in order of importance, with 1 being the most important. If you do not feel an issue is important, do not rank it. If you think issues are of equal importance, assign them the same value.

a. Abortion law

b. Health care policy

c. Same-sex marriage

d. war in the Middle East

e. Immigration policy

f. Web Censorship policy

g. Education Reform

h. Separation of church and state

i. Alternative energy research

j. Environmental policy

k. Drug law (decriminalizing or legalizing marijuana)

l. Employment/Unemployment issues

M. Sample Size

- We will be using a random sample without replacement. Therefore, we will use that information to make our calculation of the sample size. To make this calculation we will consider one of our most important questions, which is an individual's political affiliation The difficult part of this is determining what the population standard deviation. To do this we consulted a semesterly survey conducted at Harvard University that polls their students on their political views (we felt this acted as a good comparison to CMU students). In this case we looked at two measures of political affiliation, whether they self identified as liberal, conservative or moderate and their party affiliation. In both cases, the standard deviation was very similar (16.8percentage points for political leaning and 17.0 percentage points

for party affiliation). As such we decided to use a round number for the two and put the population standard deviation at 17percentage points for this question. The general results for both of these questions ranged between the 20 and 30 percent, with 1 and 2 percent replying not sure for each. We additionally included a calculation for the case where a variable is binary.

Show me the calculations.

What ME did you choose?

What SD did you get, based on your research?

What is your estimated sample size, based on these calculations?

- Here is the link to the survey from Harvard where we found our statistics http://www.iop.harvard.edu/var/ezp_site/storage/fckeditor/file/fall_poll_11_M_exec_summ.pdf
- Survey size calculations for chosen MOE:

N= 10, 266 (Students and Staff combined) In this case we did a calculation for a sample size without replacement using the standard formula for finding a sample size $((1.96^2)*(SD^2)/(ME^2))$, then multiplying it by the population size and dividing that by the population size plus the calculated sample size. That number is represented in the final sample size column. With the low standard deviation found for political affiliation a sample size needed for margin of error of .05 is ~45. For a margin of error of .025 the sample size would be ~175. We also included calculations for questions with standard deviation of .5, because we do have several binary response variables. In this case for a MOE of .05 our sample size would be 370 and for .025 it would be 1337. Comparing the results for these two calculations it appears that our ideal sample size would probably be between 200-300, because that would give us a standard deviation around .05 depending on the question. With a response rate between 20% and 30% we would need to sample about 1000 individuals to get the ideal sample size to get our desired margins of error. Examples of several of our calculations are listed below.

MOE	SD	n0	Final Sample Size
0.05	0.17	44.4089	44.21761842
0.01	0.17	1110.222	1001.874151
0.1	0.17	11.10222	11.09023041
0.025	0.17	177.6356	174.614184
0.05	0.5	384.16	370.3030339
0.01	0.5	9604	4961.98611
0.1	0.5	96.04	95.14985852
0.025	0.5	1536.64	1336.577769