

A Political Survey of the CMU Community

Dev Doshi, Emily Gehrels, William
Weiner, Crystal Wray, Pavan
Yalamanchili

EMILY

intro

Research Question

- Survey designed to study political leaning of CMU students by measuring respondent's stance on:
 - social/ political/ economic
 - election issues
- Determine relationship to demographic information such as:
 - age/gender
 - major/ QPA
 - religious affiliation
- Can we predict a person's political leaning or election behavior given their demographic information?
- How representative of the US population is the CMU community?

Why it matters

- Election year
- Youth vote big factor in 2008
- Community feelings about:
 - political issues
 - their informedness/choices for the election
- If people not informed, more action can be taken to increase awareness of issues
- Results could influence campaigns or help find new strategies to cater to student voters

Sample Questions

- What political party do you most strongly associate with?
- How much do your religious views impact your daily life?
- How much have you been following the Republican primaries (anchoring vignettes)
- Rank the following candidates in the order you would vote for them in the 2012 presidential elections if given the chance...
- How would you rank the importance of each of the following issues
 - health care policy, immigration, same sex marriage, war in the middle east, alternative energy research, unemployment,...
- Where on the following scale would you place your
 - economic views (very pro-government regulation to very pro-unregulated private)
 - views on social issues (very liberal to very conservative)
 - political preferences (strong to weak central government)

DEV

what we've done so far

Progress

- sampled from the 2011-2012 C-Book
 - random start (1), fixed skip (10)
 - 1102 members sampled
- unique id for each member in sample
 - allows us to know who has not filled out their survey for follow-ups
- decided against stratifying
 - distributions of fields and roles seem equal enough
 - can weight later if necessary

Progress

- mail-merged emails into a template

Subject: Political Survey of the CMU Community

Hello <FIRST NAME>,

We're students in 36-303 (Sampling, Surveys, and Society) and we're conducting a brief survey about politics and the CMU community. You have been randomly selected from the CMU community to take our survey. We'd really appreciate your response and it will only take a few minutes. Your responses will be kept confidential and will not be linked to your name. You can access the survey at: <https://www.surveymonkey.com/s/CMUCommunityPolitics>

Thank you again for your time and consideration.

At the start of the survey, please enter your ID Number. This information is not linked to your name and only is used to track responses to the survey. If you have any questions please contact us by replying to this email or email our Professor, Brian Junker, at brian@stat.cmu.edu

Your ID # is: <ID>

Sincerely,

Dev Doshi, Emily Gehrels, Will Weiner, Crystal Wray and Pavan Yalamanchili

In Progress

- We currently have 72 responses with 63 completed.
- 400 members of our sample have been contacted thus far.
- Will be following up with non-responses based on the unique ID we assigned each one

PAVAN

sampling

MOE and Sample Size

- $N = 10,266$ (students and faculty)
- We have several Binary response variables so set SD to .5 in our calculations to accommodate for these
- An MOE of .05 requires a sample size of 370
- An MOE of .025 requires a sample size of 1337
- We ultimately decided to aim for 300 to 400 respondents

Sampling Scheme

- So we want about 300 respondents
- Hoping for a 25% response rate, we decided upon sampling 1200 people
- We chose our sample by splitting up the C-book in sections of approximately 25 pages per group member.
- We each did a random start did a fixed skip of 10 names, essentially giving us $1/10$ of the population.

Sampling continued

- If we came across our own names or something that wasn't a name (CMU-EMS)
- We decided against stratification
- Our sample included graduate students, undergraduate students, and faculty members
- Instead, we are going to weight our results for graduate students and faculty members.

CRYSTAL

problems, glitches, advice

Problems

- Std dev from a national survey
- C-book coverage error
 - Doesn't include all students/ faculty
 - Not a true SRS
- Did not actually sample every 10th
- Selection bias
- Email -> Nonresponse
- Recontacting those who do not respond

Problems

- Not understanding vocabulary ("social views")
- Questions involving range of issues (biofuel vs solar)
- "How representative of the average person do you think members of Congress are?" vs "How representative of the average person's interests are the interests of Congress?"
- Ranking was too annoying

Advice

- More efficient way of data mining C-book
- Define terms using examples
- Use ID numbers instead of CMU ID

WILL

conclusion

What Remains

- Need to contact the rest of our sample (issues with our mail merge)
- We will recontact on Monday and then close our survey at the end of the week.
- From there we will need to look at non-responses
 - Graduate Students have thus far replied less than Undergraduates so we will likely have to use weights

Analysis

- We will be analyzing the data in R
 - Means and differences between undergrads, grads and professors.
 - Which policy issues are CMU community members most interested in, the least interested in?
 - Are there differences between well informed people and less well informed people?
 - What are differences between majors?