# Team_A_I.3

*by* William Weiner

100/100

This all looks fine.

For your target population you probably should do stratified SRS without replacement.  The strata should be something like faculty, staff and students.

best,

-BJ

## Proposal 2: A Political Survey of the CMU Community
**Members**: (Team A) Dev Doshi, Emily Gehrels, Will Weiner, Crystal Wray, Pavan Yalamanchili
**Description**:
*A. Why is this topic interesting? Why does this survey need to be done now? Is there a client for whom you might do the survey?*

This topic is interesting because we are in an election year and, since the CMU community is full of current and future leaders, it would be interesting to see how such a community feels about political issues and their informedness/choices for the election. The survey should be done now to assess how informed the community is; if people are not as informed as they should be before voting, more action can be taken to increase informedness. The political parties and their candidates would be clients who might also find the results of the survey useful.

*B. What question(s) do you propose to study? Give a brief answer that would be understandable to a non-statistician.*

We are seeking a measurement of each respondent's stance on social, political, economic, and election issues. We will obtain demographic information like {age, gender, student/faculty/staff, major/department, QPA} and see if there is a relationship between the demographic information and stance. That is, can we predict a person's political leaning or election behavior given their demographic information? Also, we want to ask how representative of the US population the CMU community is.

*C. What research has already been done on the topic or on the theoretical construct of central importance to your topic? What could be learned from the survey results?*

Dev Doshi

- The American National Election Studies (www.electionstudies.org). THE ANES GUIDE TO PUBLIC OPINION AND ELECTORAL BEHAVIOR. Ann Arbor, MI: University of Michigan, Center for Political Studies [producer and distributor].
- This website contains a large amount of data from the past 50 years of elections. It includes examples of the question phrasing and analysis of the results. It should be useful for refining our research/survey questions and methodology and also for giving us a baseline to evaluate our results against.

Emily Gehrels

- Mary Beth Marklein. Study: College Freshmen Move Left on Key Issues. *USA Today*. Retrieved Jan 29 2012 from:
  http://content.usatoday.com/communities/onpolitics/post/2012/01/college-freshmen-political-views-ucla-study/1.
- This article discusses the changes in political views of incoming college freshman since 2009. The percentage of incoming freshman who reported as moderate has increased. However, when asked about specific campaign issues such as gay rights, and right to

abortions, the results showed an increase in the percentage of responders whose responses were "leftward leaning." This provides an interesting possible survey area of comparing overall leaning with leaning on specific issues.

Will Weiner

- Gage, Rachel. Zick, Jennifer. Tully, Kaylie and Simon, Eliana. "Choice of Major and Political Attitudes: A Study of University of Minnesota Students" *Sentience. The University of Minnesota Undergraduate Journal of Psychology* (2010). http://www.psych.umn.edu/sentience/files/Gage_2010.pdf
- This study looks at whether there is a correlation between a student's major and their political views. It was carried out at the University of Minnesota, so the results may or may not generalize well to the US as a whole, but they seem intuitive. There did not seem to be much other research at a larger national level so it could be interesting to see how our findings compare. In this study it was found that major is uncorrelated with social views, but is significantly related to the economic views of a student. It was found that business, economics, engineering, and computer science majors were significantly more conservative economically than arts, lab science, and social science majors. This gives us an idea of what results we might see and would be interesting to see if these results match our findings.

Crystal Wray

- Perez, Esten and John Della Volpe (eds.) (2011). *Survey of Young Americans' Attitudes Toward Politics and Public Service: 20th Edition.* Harvard University Institute of Politics: Cambridge. http://www.iop.harvard.edu/Research-Publications/Survey/Fall-2011-Survey

- This survey polled 2,028 18-29 year-old U.S. citizens and found that a plurality predict Obama will lose bid for re-election and that Mitt Romney leads among young Republican primary and caucus goers. This survey can provide the framework for how we should conduct our study as well as allow us to compare CMU students to the general population of young adults.

Pavan Yalamanchili

- "College Students and Politics: A Literature Review" by Ross P. Meyer and Nicholas V. Longo http://www.civicyouth.org/PopUps/WorkingPapers/WP46LongoMeyer.pdf
- This article is about the political views and voting tendencies that are common among college students. It explores the reasoning behind the perceived apathy among college students about politics, and whether it is a misconception or an actuality. It uses

literature as its main focus of research, however, while we would like to use survey methodology to provide evidence for or against the notion that college students are not very politically involved.

*D. What is the sampling frame? What population or populations do you plan to sample from? (This is the question many tend to miss).*

The sampling frame is all students, faculty,and staff who currently attend school or work at the Pittsburgh campus of CMU. The sampled units will be asked for an andrew ID to avoid double-counting. We will use the C-Book to gather emails of faculty and students to distribute the surveys via email. To account for those who are not in C-Book, our survey will also include Facebook, Twitter, and cmu.misc.market users.

*E. What is the target population? To what population(s) do you wish to make inferences? How does the target population differ from the sampling frame, for your survey? What possible sampling and non-sampling errors could arise in the survey that you plan to conduct? Explain each possible error, how it could occur, and how you suggest tackling it.*

The target population is all of the students, faculty, and staff from the Pittsburgh campus of CMU. We do not intend to generalize to a greater population such as all US universities. Because not all faculty, students, and staff can be accessed using emails from the C-Book we may encounter coverage error. However, since the vast majority of students and faculty have school-provided email addresses, we can cover most of our population using this frame. Also, depending on how long the survey is available, people may not check their email in time to respond to the survey. These issues might be improved by using media like Twitter and Facebook to get more coverage.

We may also encounter sampling error based on the method we have chosen for choosing a sample from our sampling population, students and faculty who have emails listed in the C-Book, as well as the the possibility of ineligible units in our sampling frame. In order to account for ineligible units, we would use screening questions early in the survey to determine the status of those answering the survey, such as what year, whether they are undergraduate or graduate students, if they are faculty, and whether they are actually full time students or not.

There will likely be some nonresponse error based on those who are chosen to be part of our sample, but do not choose to respond to the survey. We will attempt to minimize this error by recontacting those who do not respond to the survey after our first contact.

We are also aware of the possibility of measurement error if students are unwilling to disclose their political beliefs or perhaps even QPA. In order to minimize this error we will assure the respondents that the results will be kept anonymous.

*F. What is the mode of data collection? How do you plan to carry out the survey (e.g., by telephone, e-mail) and why?*

The data will be collected via Google Docs Forms. It is a free alternative to SurveyMonkey that facilitates easier analysis. Links to the survey will be distributed via email to andrew ID's that are randomly selected from the C-BOOK, This should give us improved coverage as well as additional information about the population. If we have non-response issues we feel confident that we can select an additional random sample to augment out respondent numbers as necessary.

*G. What variables do you propose to measure*

We propose to measure the age, gender, ethnicity, and state referred to as permanent home of each of the respondents, as well as whether the respondent is student/faculty/staff, and if applicable, their QPA, primary major, and home department. We will also measure the subjects' informedness (self-reported, e.g. where and how frequently they get political information) about election expectations, candidates' stances, and their stance on major political issues. We will try to keep the total number of questions between 20-50 based on the final direction the survey will go in.