

I.2 Group D proposals

by Matthew Vela

Project 1:

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INteresting topic, doable survey.
I like the umn undergrad paper,
because you can compare your
work to theirs, but you will be
doing a more scientifically valid
survey (not just convenience
samples!)

Project 2:

- A. Interest 7/10
- B. Research Questions 7/10
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- D. Sampling Frame 4/8
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This is an interesting topic and
you have some interesting ideas,
but you have not been very
successul at focusing this so
that there is a single natural
target population to sample
from.

83/100

Project Proposal: Political Attitudes and Major of Carnegie Mellon Students

Movses Musaelian, Matt Vela

I. Interest

10/10

It's always been interesting to me the relationship between the major that students pursue in college and their political philosophy. It would be interesting to know if certain areas in academia draw people with certain political leanings or if such a differentiation doesn't exist. For example, will the stereotype hold that students studying art or music are more left wing when it comes to political and social issues? Breaking or reinforcing long thought stereotypes can be a very interesting task. Which major has the most relatively right wing students and what can be said about that subject and its relationship to such politics? The information that will be obtained from such a survey won't necessarily be the most applicable; however, it will be an interesting expose of Carnegie Mellon students from which all of us can learn a bit more about the community in which we study and live in. Possibly the results from such a survey could be published in the school newspaper. In all, we view this survey as a diagnostic of our community, similar to how several polls are conducted on the US population regarding certain issues that in all serve as a diagnostic of how people think and the relationships that exist.

II. Questions

10/10

The most important question that we will want to study is if there is a distinguishable relationship between one's primary major and political philosophy. The questions that we pose to students will try to gauge their political philosophy, but also social views. For example, questions regarding size of government, views on abortion, traditional marriage, etc. Hence, another question may arise from this regarding social views and political philosophy and how well they run parallel, which we assume will be rather often. Given the fact that many students have double majors and minors in different fields, we will focus on the given student's primary major. While we will only test our school community, the bigger question at hand is if students with certain views both politically and socially are more probable to choose certain majors and what can be said about those areas of study in relationship with the prevalent political/social view. In addition to noting the primary major, it will be important to also take heed of other variables that may exist in influencing one's views for example, where one is from, religion, sex, and age. All of this will have to be recorded as well.

5/5

III. Research

While many stereotypes regarding this question exist, not much tangible research has been done. However, there was this notable research done at University of Minnesota regarding this exact question. The results from this survey concluded that there wasn't a significant relationship between one's university major and social views, however a tangible relationship existed between one's chosen university major and economic views. It will be very interesting to compare the results from the CMU community to this university's community and see if similar relationships

exist. The paper also references some other papers that researched this question, which will add nicely to background with which our results can be compared.

This is a nice paper but I will expect you to do a much more scientifically valid job of selecting a sample (no lazy convenience samples!)

"Choice of Major and Political Attitudes: A Study of University of Minnesota Students", Spring 2010, (Rachel Gage, Jennifer Zick, Kaylie Tully, and Elaina Simon), Department of Psychology, University of Minnesota. Published in University of Minnesota Undergraduate Journal of Psychology (Sentience).
http://www.psych.umn.edu/sentience/files/Gage_2010.pdf

Another source found was a university article which investigates the liberalisation of students' socio-political orientations. The article however does not employ a survey, but provides an extensive history and analysis regarding this trend which is crucial to this topic.

"Higher education and sociopolitical orientation: The role of social influence in the liberalisation of students" Brianne Hastie, University of South Australia, European Journal of Psychology of Education 2007

This third article examines the argument that political orientation is significant in affecting academic success in university. The sample size utilised in the paper are undergraduate students at an American university and their respective grades. The statistical analysis includes multilevel regression modelling.

"What's in a Grade? Academic Success and Political Orientation" Kemmelmeier, Danielson, Basten, Personality and Social Psychology Bulletin, 2005

The fourth paper is regarding voting behaviour of parents and their children at university. The paper includes some useful data regarding political attitudes of students and since this research was done via survey, the questionnaire is shown in the paper.

<http://www.manchester.edu/oaa/Programs/MISC/files/documents/KnightBriannaandLupkinAlycaandMcFaddenKaty-Paper.pdf>

IV. Sampling Frame

8/8

great. already better than the umn paper.

The sampling frame for this topic would include the undergraduate students at Carnegie Mellon. However, this sampling frame would have to be narrowed down to students who have a declared primary major; hence, many first year students will become illegible units. Most likely it will be 3rd and 4th year students that are included the most in this sampling frame because most if not all have a declared primary major. Given this, the units will be sampled from email addresses in C-book, rather than exclude all the first year students, we plan on having our first question "filter" students who do not have declared majors.

V. Target Population

7/8

It would be sufficient to let the target pop be undergrads with declared majors @ CMU.

The target population here is US university undergraduate students with a declared field of study. Of course, it must be noted that Carnegie Mellon will most likely not be the ideal representative sample of this population, as more people are involved in technical fields given it is a technical university. For example, a possibly better sampling frame might have been students at a large public university where there is

Anything broader, you have a substantial coverage problem.

greater diversity of majors and political attitudes and hence a better representative of US undergraduates as a whole. This nature of Carnegie Mellon will naturally yield some sampling error. I would expect less sampling error at a large public university. One way of tackling this issue would be to make sure a proportional amount of technical students, humanities students, and art students are contacted. Given the much larger amount of technical students, this may be a bit difficult to do as we may lose a good amount of sample size as a result.

VI. Mode of Data Collection 5/5

The mode of collecting the data will be via short questionnaire which will be hosted on one of the online surveying hosts (SurveyMonkey). The questionnaires will be sent via email to the sample population. For this topic, this method seems the easiest as one can choose the people of his sample size carefully, representing a variety of majors, and doesn't require much physical involvement. Of course one downside is the lower response rate that will come with this method, thus we will probably have to utilise an incentive scheme.

VII. Variables to Measure 4/4

but longer than
the umn one.

The questionnaire will be short. The first things we will have to ask are demographical. For example, we will want to know if they have a declared major or not and possibly a question regarding their background (such as religion or homeland). The variables of the content core will have to gauge the individual's attitude towards big/debated questions of political and economic philosophy such as the size of government and government welfare. The other variables will have to gauge the person's views towards the most controversial social issues such as abortion. A combination of these variables will give us a pretty informative picture of individual in our sample.

Written by Movses.

Project Proposal: Frequency of Emergency Vehicles on Forbes and Morewood and their relative effect on student dorming

Matt Vela, Movses Musaelian

I. Interest

interesting topic but not clear
how you are going to make a
causal link....

7/10

If it isn't already apparent, there are quite a few emergency vehicles that pass down Forbes and Morewood on a daily basis. For students that live in Morewood Gardens, this can seem like quite a nuisance, especially for those that live in the towers facing the street. But can the frequency of these emergency response vehicles have any ulterior effect on student health, such as the development of hearing loss, or is the frequency of emergency vehicles merely a matter of annoyance? This survey hopes to measure the frequency of emergency vehicles passing down Forbes and Morewood and make a causal link to student discomfort, particularly any health deficiencies that have occurred in result.

II. Questions

how would you
establish this
correlation?

The most important question that will be asked is if there is any correlation between the frequency of emergency vehicles that pass by Forbes and Morewood and the relative discomfort of students dorming in Morewood Gardens. If there is a correlation, then the result of this study could explain any health deficiencies that result from dorming in Morewood Gardens. However, if it is found that the frequency of the emergency vehicles has no effect or minimal effect on student dorming in Morewood Gardens, then the survey will attempt to conclude that the perceived annoyance of emergency vehicles passing through Forbes and Morewood is merely a matter affecting a few students, perhaps those residing closest to the intersection, and is thus not a significant matter at all.

7/10

III. Research

5/5

Currently, there has no study been conducted correlating the number of emergency vehicles passing through Forbes Ave. to local emergencies and the annoyance levels of Morewood Gardens dorm residents. However, there is various literature illustrating the effects of loud noises on health, a conclusion that this survey hopes to achieve by demonstrating that there is a causal link between daily emergency vehicle responses and the possible effects of the sirens on student dormitory life.

For background, this article demonstrates the severity of noisy emergency vehicles and why individuals should be concerned with noise pollution as a detriment to personal health:

<http://kryptowrite.hubpages.com/hub/Emergency-Vehicle-Sirens-The-Noise-Bully-of-the-Twenty-First-Century>

In this study conducted on members of a fire department in New York, the noise level of the fire engine's siren is assessed, as well as it's effects on a firefighter's health and their gradual hearing loss over time:

<http://books.google.com/books?id=B1oDFxJ2Kq8C&pg=PA35&lpg=PA35&dq=noisy+sirens+health+survey&source=bl&ots=G56ejNpbzk&sig=ezFrKAC1ny48tNiXvF1Ehw9lOXU&hl=en&sa=X&ei=7440T9uaIeb-2QWzjpmeAg&ved=0CE4Q6AEwBw#v=onepage&q=noisy%20sirens%20health%20survey&f=false>

In another article, the author attempts to argue against the frequent use of lights and sirens in due to their effect on driver safety and the subsequent health effects on others:

<http://www.emergencydispatch.org/articles/lightssirenliability1.htm>

Finally, this last article demonstrates the health effects caused by noise in a medically sound explanation so as to warrant the conclusion that this survey will attempt to extrapolate as a result of surveying emergency vehicles and their effects on student dorming.

<http://www.noiseandhealth.org/article.asp?issn=1463-1741;year=2004;volume=6;issue=22;spage=5;epage=13;aulast=Ising>

IV. Sampling Frame

4/8 you're still doing two separate surveys?

This sampling frame would be two fold: first, data would be collected regarding the frequency of emergency response vehicles that pass Forbes and Morewood near Carnegie Mellon on a daily basis, and second, students in the Morewood Gardens dormitory would be surveyed for their comfort living in the dorms relative to the frequency of emergency vehicles that pass Forbes and Morewood. It should be noted that the students that are polled in the student survey will be mostly 2nd and 3rd years, with few, if any, seniors present in the building. While all dorming students from within Morewood Gardens will be eligible to be a part of the survey, students whose rooms are located in the North towers facing in the direction of Forbes and Morewood will be oversampled since they are most likely to experience the discomfort of passing emergency vehicles.

V. Target Population

4/8 so far you still have 2 target populations. How large is the student population you are talking about here?

The target population in this study is all dorming undergraduate college students at CMU dorming near Forbes and Morewood. For the purposes of this study, Morewood Gardens is the only dorm in consideration due to the convenience of sampling, but it should also be noted that there exist Greek life dorms on the opposite side of the street that are also subject to the daily passing of emergency vehicles. For purposes of keeping the sampling process as manageable as possible, these additional dorms and their minimal inhabitants will be excluded from the sampling process. While this may lead to sampling error in the survey, this can be easily accounted for by having a larger sample size from Morewood Gardens and adjusting any subsequent weights to adjust for the excluded population.

VI. Mode of Data Collection

3/5

Data collection will be conducted in two ways: first, to collect data on the frequency of emergency vehicles passing Forbes and Morewood, observations will be taken three times throughout the day - one in the morning, afternoon, and night. This will

be accomplished by tallying the number of emergency vehicles that pass in a given time period by either being positioned somewhere along the sidewalk near the intersection, or being positioned in a dorm room directly above the Forbes and Morewood intersection and conducting the tallying from there. Second, the student survey will be collected by going door to door to different dorm rooms on different floors looking for participants to fill out a pencil and paper survey. This can either be self-administered to the students in the dorm, with their responses simply returned when it is most convenient for them, or questions can be administered orally and responses elicited immediately. Either method is relatively costless, since I am able to collect the data at any time since I am a resident of Morewood Gardens. The only foreseen difficulty lies in the possibility that respondents may not be home, or unwilling/unable to complete the survey. For those that are unwilling to complete the survey, an incentive can be given to the subject to make the benefits of the administration of the survey worthwhile for the participant.

is the dorm pop
so small that you
are really talking
about a census
here?

VII. Variables to Measure

The questionnaire in the student sampling will be self-explanatory and simple. The first few questions will intend to establish if the occupants in the room are residents of Morewood Gardens, and if so, how frequently they reside in their rooms during the day. Once this is established, the main variable of interest will attempt to gauge each subject's subjective score of how annoyed or how much of a nuisance passing emergency vehicles are perceived to be. A follow-up question will be asked to illicit how often dorm residents perceive emergency vehicles to pass by Forbes and Morewood. Each subject's responses to these questions will be measured against the actual number of times emergency vehicles pass by Forbes and Morewood so as to determine if there is any causal link between the frequency of these vehicles and the relative discomfort of Morewood Gardens residents as a result of being exposed to these noise.

4/4

Written by Matt.