

What Determines Involvement at Carnegie Mellon?

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Section 1: Introduction

1.1 Research Question and Motivation

Carnegie Mellon is not known for its school spirit. In particular, we have noticed low attendance at sporting events and the creation of the Tartan Rewards Program, which aims to increase attendance at Carnegie Mellon events. Understanding how groups form on campus can be used to unify the student body and improve attendance at school events. CMU sports teams and clubs and the Tartan Rewards Program could be possible clients of this survey because the information could improve their attendance rates. This study needs to be done now to benefit incoming classes of students and attract more students to come to Carnegie Mellon.

1.2 Citations to Relevant Literature – An Overview

this could be done right now!

1.3 Quick Summary of Main Results

Section 2: Methods

2.1 Target Population and Frame

Our target population is Carnegie Mellon University undergraduate students. Given that our mode of data collection is a random sample of university wide courses, our sampling frame is all undergraduate students in these randomly ~~generated~~ courses.

selected

2.2 Sample Size

The population (N) is 5,705. We are using a Margin of Error (ME) of .05 and a worst-case standard deviation (SD) of .5. From this we calculated $n_0 = 385$. Because we are conducting SRS without replacement, we found $n \geq 360.6 = 361$. And because we are doing clustered sampling, we inflated this figure by 20% to obtain $n = 433.2 = 433$.

(Still to discuss- how to deal with response rate at both levels- need to meet with Prof. Junker to discuss)

you want to target about 433 students; how many classes does this translate into?

What about oversampling to account for nonresponse?

2.3 Sample Design and Methods

We did a random cluster sample of undergraduate classes at Carnegie Mellon University. Undergraduate Students in randomly sampled classes. We will use a simple random sampling without replacement method to select students to take our survey. Attached are the classes we randomly selected through a random number generator. We plan to survey all the students in these 25 classes. We will email the respective professors for permission to come in

how was the number 25 arrived at?

and administer the survey (hopefully at the end of class, so as not to disrupt the lecture). Once we gain permission, we will be conducting self-administered pen-and-paper questionnaires that the students can take.

We decided on SRS without replacement because we would like to give equal chances to all the undergraduate classes (minus the graduate classes). Since our target population is Carnegie Mellon Undergraduates, it would be best to not stratify and give all the undergraduates an equal chance. We chose to do SRS without replacement since once we choose a class for our sample we are not replacing the chosen class back into our random number generator.

We administered in-class surveys of randomly selected classes from the undergraduate course offerings. We felt that this was the best method of collecting data because it will minimize errors and lead to the best random sample of undergraduate students with the highest response rate.

I will be very curious about the faculty and student response rates for this study! Interesting....

2.4 Response

Our survey consists of three categories of questions, including demographic questions, predictor variables, and questions that lead to our creation of an “involvement score”, which will be discussed later. The demographic questions ask the students’ gender, year, college within CMU, and race. The predictor variables ask about specific activities or affiliations that a student can be a part of on and off campus. Some examples of these questions are “Are you a Resident Assistant?” and “Do you have a campus job?” The predictor variables also consist of quantitative questions, such as asking how much time they spend on academics outside of classes and how many sports events they have attended. The involvement score questions ask students how many organizations they are a part of and the positions they hold within those organizations.

2.5 Post-Survey Processing

We are currently in the process of gathering and analyzing data. Each completed survey is entered into a spreadsheet where, upon the completion of data collection, we will use our variables to produce a per person and aggregate involvement score that will measure participation in campus events and activities. Furthermore, we will run analysis to find correlations between predictor variables and specific involvement categories as well as that between demographics and involvement.

we can’t answer these because we haven’t done anything yet...

Section 3: Results

3.1 Introduction to Results

3.2 General Results

3.3 Statistical Analyses

3.3.1 ANOVA (this was just in the example paper, we don't have to use anova if we don't need it)

3.3.2 Binary Logistic Regression (same as previous)

3.4 Conclusions about our Research Questions

Section 4: Discussion

4.1 Our Research Questions

Our research question asks what the factors are in motivating CMU undergraduates' involvement on campus. We looked into factors such as how many organizations a student is a member of, and how active they are in each of these organizations. These factored into an involvement score, and we used demographic variables such as school, and response variables such as how many majors the student has, if they have specific campus involvement, such as working as a teacher's assistant, or as an orientation counselor. We looked to see which factors were statistically significant in affecting student involvement, how significant they were, and how they affected involvement.

4.2 Surprising/Unexpected Results

4.3 Brief Answers to Research Questions

4.4 Strengths

4.5 Weaknesses

4.6 Take Home Message

List of References

This could be done right now!

Please format the references like the examples at

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Some overall comments:

* you didn't discuss or cite any of the articles you found on this subject!

* * sample size for individual students OK but

- no oversampling for nonresponse?
- how did the student sample size get converted into a number of classes (25) to sample?
- provide more information on how the classes were randomly selected.

* please make a list of references at the end of the paper (before the appendices) in a format like the examples at

<http://www.library.cornell.edu/resrch/citmanage/apa>

* don't forget to include -- and use -- appendices