



# Group D: Measuring Involvement at CMU

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# Agenda

- Purpose of Study
- Questionnaire
- Sample method
- Sample selection
- Future advice
- Current work
  - Glitches and successes
- Future work



# Purpose

- CMU is not known for its school spirit
- Understand how groups form on campus:
  - Unify the student body
  - Improve attendance at school events
    - CMU sports teams, clubs, and the Tartan Rewards Program are potential clients
  - Benefit incoming classes of students and attract more students to Carnegie Mellon



# Questionnaire

- Paper and Pencil survey
- Anonymous
- Question Topics:
  - Demographics
  - Involvement Score Variable
  - Predictor Variables

looking forward to  
hearing more about this  
in the report



# Question Topic Examples

- Demographics
  - Age, Gender, Home School
- Involvement score variable questions
  - Number of Organizations, Level of Involvement within Organizations
- Predictor variables
  - Amount of time spent on work outside classes, specific activities they're participants of



# Sample Method

- Carnegie Mellon undergraduate students are the target population
- Sampling frame is all undergraduate classes at Carnegie Mellon currently taught in Spring 2011
- Random clustered sample ✓
- Random number generator to select undergraduate classes to sample
- Sampled all students in each selected class



# Sample Selection

We approximated an 85% response rate.

This is great and should all be in your report (in the main body or in an appx)

N (Population)= 5,705 (figure provided in lecture)

Standard Deviation (SD)= .5 (worst case)

Margin of Error (ME)= .05

Sample size for SRS with replacement :

$$n_0 = 384.2 = 385$$

But since we're conducting SRS without replacement:

$$n \geq 360.6 = 361$$

We inflated the sample size by 20% because we are doing clustered sampling:

$$n = 361 * 1.2 = 433.2$$

Given our 85% response rate, our sample n is:

$$n = 433.2 / 0.85 = 509.6 = 510$$

This yields a sample size for individual students. how do you convert to a sample size for clusters (classrooms)?



# Future Advice

- Consider the Pros and Cons of clustered vs. stratified sampling ✓
- When randomly selecting classes from the Carnegie Mellon Schedule of Classes be sure to omit Graduate level classes
- Determine the average class size ✓
- Remind Professors you are coming beforehand ✓
- Bring enough surveys ✓





# Current Work

- Selected classes to sample
- Emailed Professors
- Visited seven of the eighteen to twenty classes
- Have classes set up to survey next week
- Set up method for coding the data into a spreadsheet



# Glitches

- Getting Professors' permission
- Interpretation of questions
- Non-response rate is based on:
  - Professors' refusal to let us survey
  - Student refusal to take or complete survey
- Sending follow up emails to reduce non-response rate

I'm looking forward to reading about these in the final report! Especially (but not only) professor and student refusal rates



# Successes

- Already surveyed over 100 students /
- Low non-response rate within classes,  
great!
- Minimum misunderstanding of survey  
great!



# Future Work

- Continue surveying ✓
- End date: April 1<sup>st</sup> or when we reach number of respondents needed for our sample ✓
- Data input ✓
- Analyze data and interpret results
  - Model “involvement score” based on variables ✓
  - Identify trends within the data



# Questions