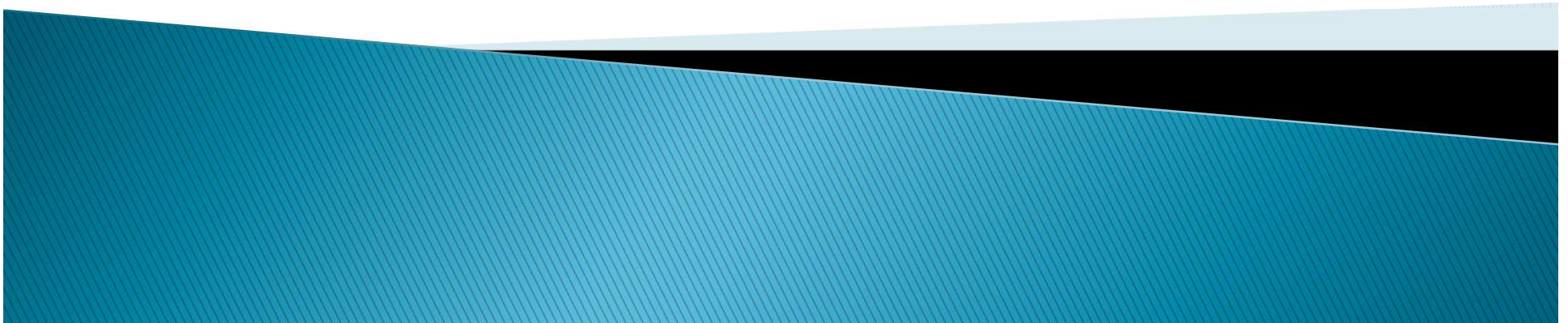


# Analysis of the Off-Campus Housing Search for CMU Students

36-303 | Team E

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# Agenda

- Research Question and Motivation
- Questionnaire
- Sample Selection
- Survey Setup
- Glitches
- Success
- Conclusion
- Future Direction



# Research Question and Motivation

- Research Question
  - What are the common platforms used in the search of off-campus housing?
  - What are your preferences for off-campus housing?
  - Do you think this searching experience can be improved, if so, in what ways?
- Motivation
  - Survey intended to identify the existing difficulty in the search process
  - Looking for possible ways to improve off-campus housing search process
  - Survey result will be of great interest for the community(1)

1. CMU Student Affairs, property managers, college students and college student parents.



# Questionnaire

## Part 0 : Resident Status

## Part 1 : General Information

- Demographics

## Part 2 : Identifying Difficulties in Off-Campus Housing Search

- 7a. When looking for a place to live off-campus, which method have you used the most? (circle most used method)

Housing and Dining / housing fair

Craigslist or other online agents

Word of Mouth

Other: \_\_\_\_\_

- 7b. For the above method that you chose in question 7a, please rate each of the following aspects of that method by circling your choice (1 = disagree strongly, 4 =agree strongly)

It was easy to use/accessible.

1   2   3   4

It provided an adequate amount of information for me.

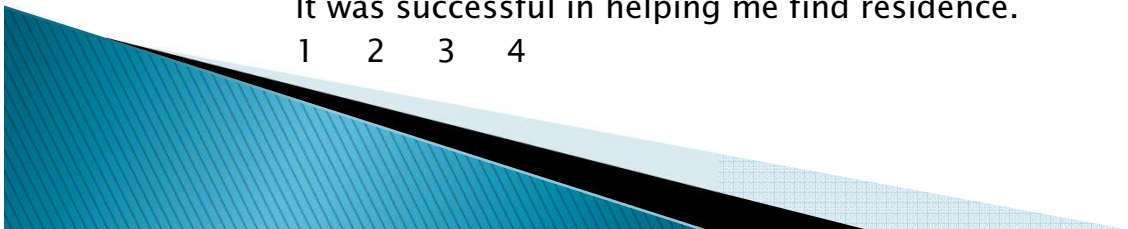
1   2   3   4

It provided accurate information.

1   2   3   4

It was successful in helping me find residence.

1   2   3   4

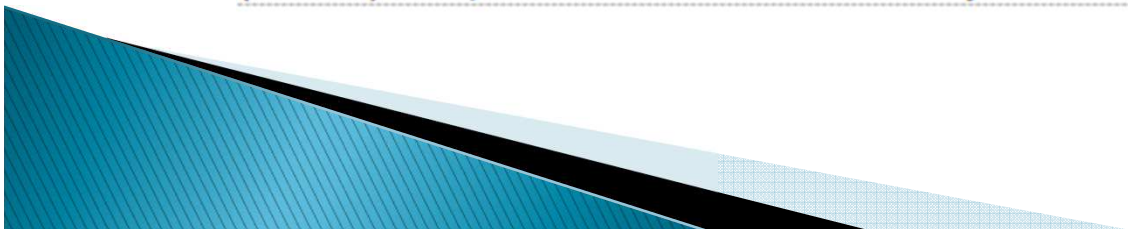


# Questionnaire

## Part 3 : Identifying Preferences in Off-Campus Housing Search

- How important are the following things in affecting your decision to choose a particular house or apartment? (1 = not important, 4=extremely important)

Parking Space Available:	1	2	3	4
Cleanliness inside:	1	2	3	4
(Apartment) Which floor it is on	1	2	3	4
(Apartment) Attractiveness of Apartment Building	1	2	3	4
(Apartment) Frequency/availability of maintenance	1	2	3	4
(House) Basement	1	2	3	4
(House) Attic	1	2	3	4
(House) Backyard	1	2	3	4
(House) Porch	1	2	3	4
(House) Having more than one story	1	2	3	4
(House) Attractiveness of House	1	2	3	4
(House) Attractiveness of Neighborhood	1	2	3	4
(House) Responsiveness and Availability of landlord	1	2	3	4



# Sample Selection

- Sampling Frame: students from C-book
- Stratified SRS : Graduate and Undergraduate
- Calculations

$$n' = \frac{(Z_{\frac{\alpha}{2}})^2 (SD^2)}{(ME)^2}$$

$$n \geq \frac{(N)(n')}{(N + n')}$$

- Sample Size
  - 147 Undergraduate and 109 Graduate with Margin of Error of 0.8
- 25% response rate
  - 588 Undergraduate and 436 Graduate sampled
- Randomly generate 1200 numbers each for undergraduate and graduate (page, column, row)



# Survey Setup

- Survey posted on website
  - Promotional page with raffle details
- Emails
  - Email for preliminary information and selection
  - Email with the survey link
    - Studies have shown that this raises the response rate
  - Follow up email to be sent out in future





# Glitches

## 1. Nonresponse Rate

- Too early to determine the nonresponse rate
  - Distinguishing features of nonrespondents/refusers
- Nonresponse Rate high
  - Web based survey

## 2. Remedies for Nonresponse Rate

- The incentive of raffle will potentially decrease the nonresponse rate
- Follow up E-mail to sample students





# Current Status

- What we have done so far
  - Selected sample
  - Sent out initial email to sample group
  - Created promotional website content
  - Survey to be sent this week



# Conclusion: deadlines

- Follow up email to be sent 1 week after email with survey link
  - Potential additional follow-up email close to deadline, in the event we do not get enough respondents
- Survey cut-off date will be April 14<sup>th</sup>
  - Survey will be up for around 2 weeks
    - Just enough time to collect data, but not too long



# Conclusion: Advice

- Advice
  - Expect delays and difficulties with human subjects; plan deadlines accordingly
    - IRB, CITI (confidentiality, consent)
    - Non-response
    - Other errors
  - Expect slight errors in randomly sampling
    - Account for that error
    - If possible work with digital formats



# Future Direction

- Non-response
  - Programmed survey so that we will only get completed questionnaires
  - May need to weigh undergrads vs grads



# Future Direction

- Analysis
  - Use R to analyze data
    - Relationship of satisfaction to search platform and preferences
    - By groups (demographic information, especially grad/undergrad) with respect to satisfaction



**Thank You**

**Questions?**

