

Rental Unit Energy Efficiency in Columbia, MO

Capstone Project – Truman School of Public Affairs

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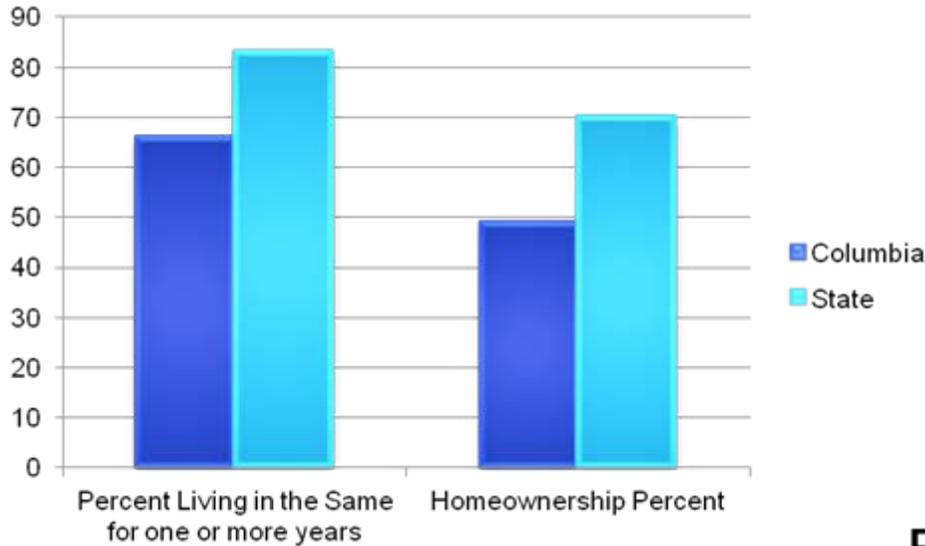
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Overview

- Review and Background
- Methodology
- Results
- Recommendations
- Acknowledgements

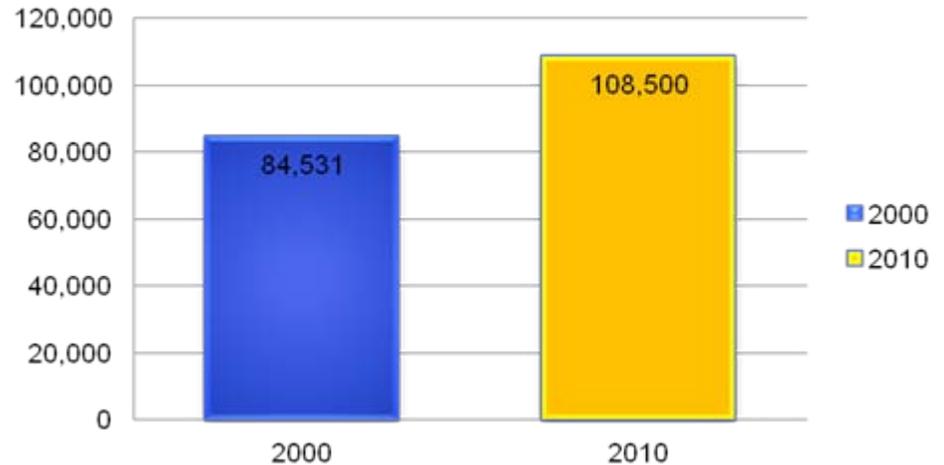
Review and Background

- City of Columbia



2010

Population Growth



Review con't

- Principal-Agent Problem
 - Landlords and Tenants
 - Neither Landlord nor Tenant have incentives
 - Market signals are distorted
 - Weatherization and appliances fall far short compared to owned homes
 - Energy inefficiency results in overall loss for the community

Review con't

- City of Columbia Demand Side Research
 - What factors influence renters' decisions?
 - What sources of information do renters use to make decisions?
 - How do renters perceive energy efficiency?
 - How would be the best way to disperse the information we have so that renters can make the best decisions?

Methodology

- Two-pronged approach
 - Surveys
 - Focus Groups
- Goals
 - Find motivations for Columbia renters
 - Find out if energy efficiency is an interest or selling point
 - Find out how they want to access their information

Methodology - Surveys

- Main tool for data acquisition
- Two tools
 - Online – Google Documents
 - Paper copies – BCH
- Two identical copies of online survey
 - Community
 - City Source, KBIA, Columbia Tribune
 - Student
 - Sustain Mizzou
 - MU Info
- Procedures for managing data

Methodology – Surveys con't

- Quantitative Analysis
 - Difference of means between populations of interest
 - Associations of interest
 - Correlations of interest
- Qualitative Analysis
 - Frequency counts

Methodology – Focus Groups

- Initial Plans
- Recruitment
 - Through the Survey
 - Fliers
- How It Played Out
 - Smaller Number
 - Nonrandom
- Not used for statistical analysis, but qualitative support for quantitative analysis

Results

- Definite demand
- Perception Issue
 - Students – distorted perception
 - Community – helpless perception
- Information Gap
 - Lack of campus resources

Sample Demographics

Students (n=195)

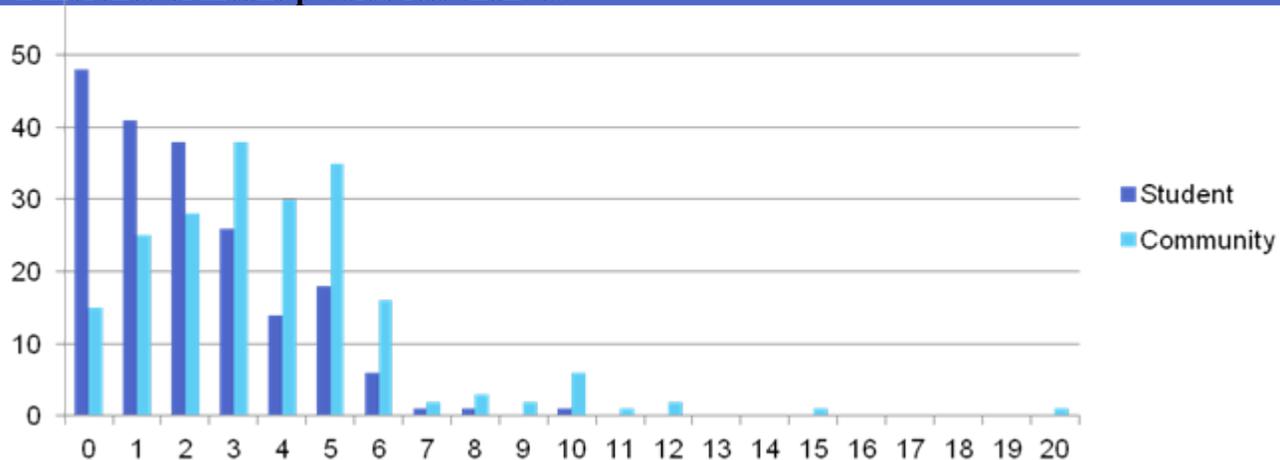
	Mean	Median	Standard Deviation	Standard Error	Min	Max	95% CI
Age Group*	1.38 (18-25)	1 (18-25)	.61	.04	1 (18-25)	4 (56-65)	1.29 - 1.47
Income Bracket*	2.04 (\$10,000- &15,000)	1 (<\$10,000)	1.52	.11	1 (<\$10,000)	7 (\$55,000+)	1.82 - 2.25
Number in HH*	2.50	2	1.33	.09	1	8	2.32 - 2.69

Community (n=205)

Age Group	2.28(26-35)	2 (26-35)	1.19	.08	1 (18-25)	6 (66+)	2.12 - 2.45
Income Bracket	3.96 (\$25,000- \$35,000)	4 (\$25,001-\$35,000)	1.55	.11	1 (<\$10,000)	7 (\$55,000+)	3.74 - 4.17
Number in HH	2.34	2	1.71	.11	1	17	2.11 - 2.58

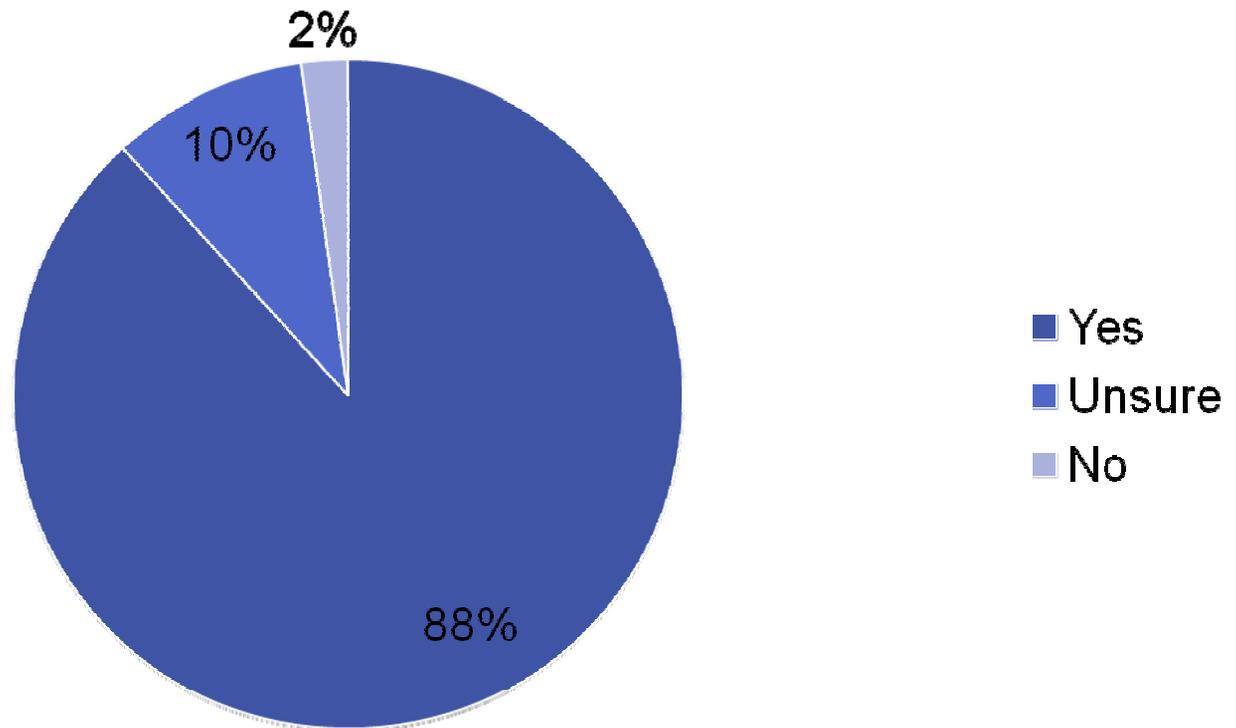
Number of Places Rented in Past

* Difference of means p-value less than .05



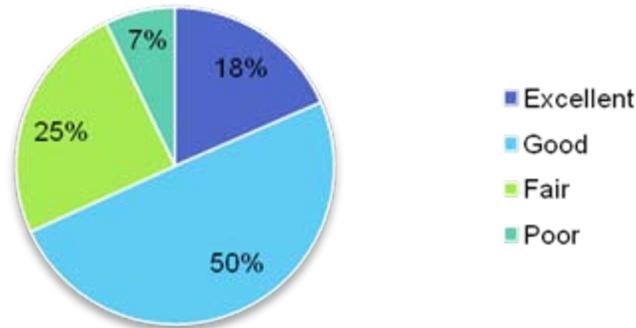
Is There a Demand?

Will Consider Utilities When Renting Next Unit

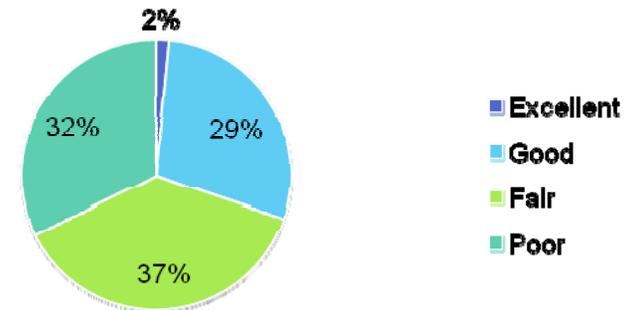


Perceived Quality of Rental Properties

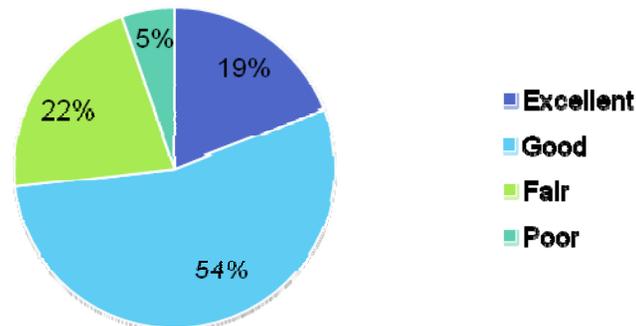
Quality of Unit (Student)



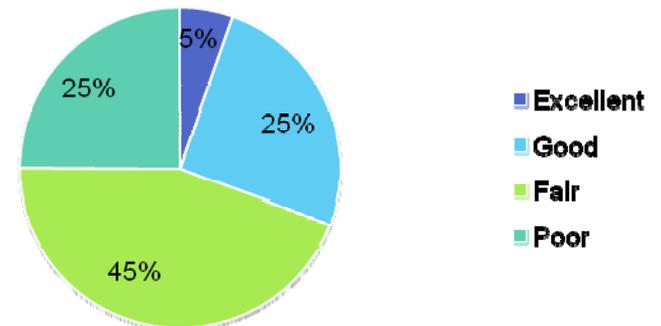
Energy Efficiency of Unit (Student)



Quality of Unit (Community)

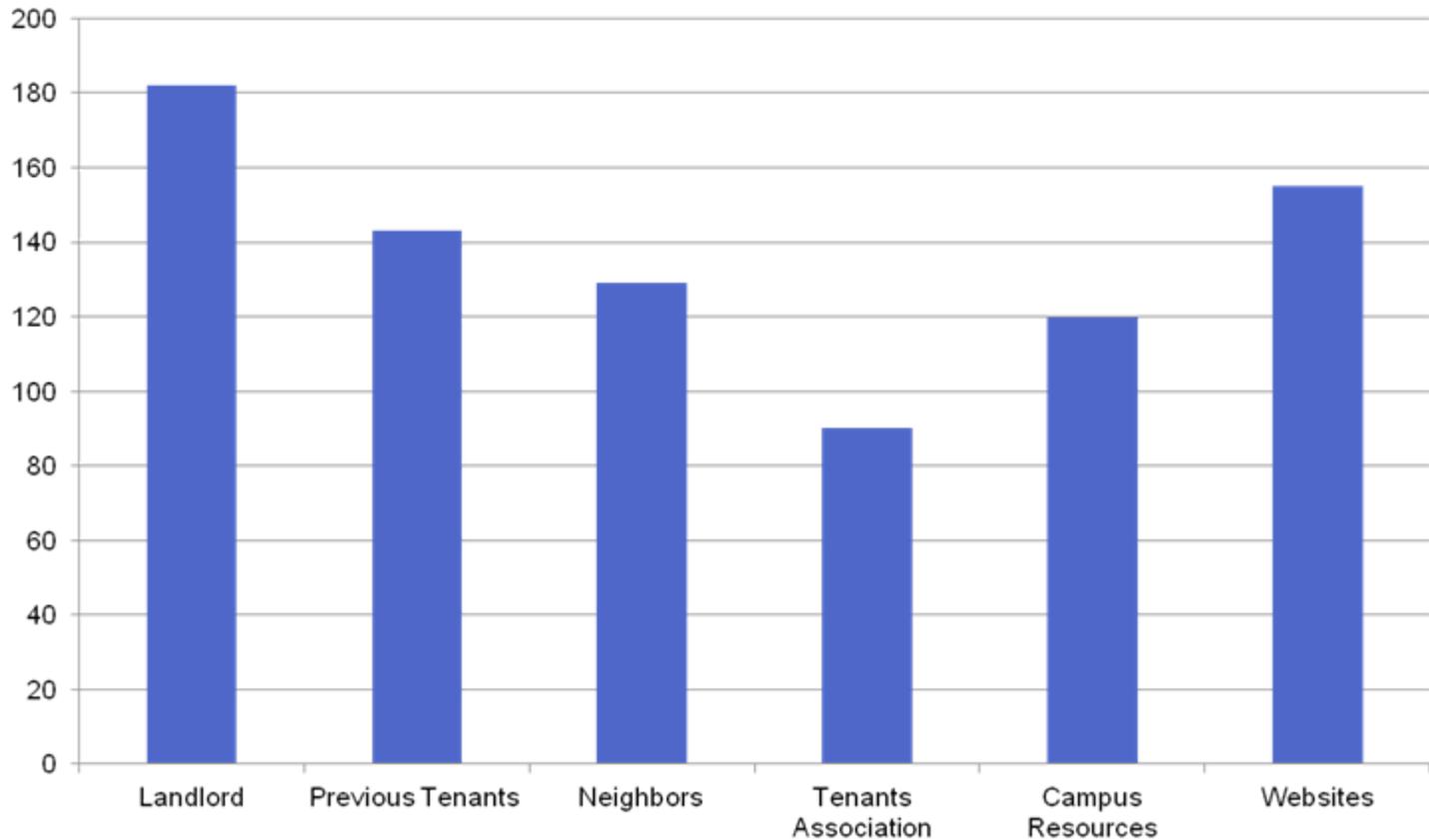


Energy Efficiency of Unit (Community)

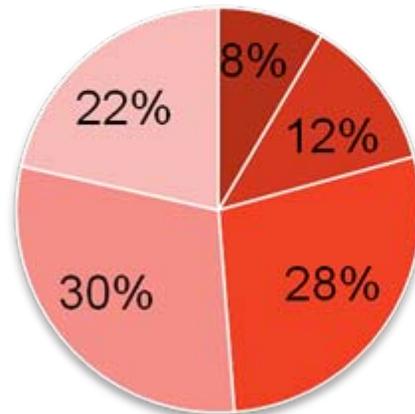


Choosing Property

Information Used When Deciding on Unit (Students)

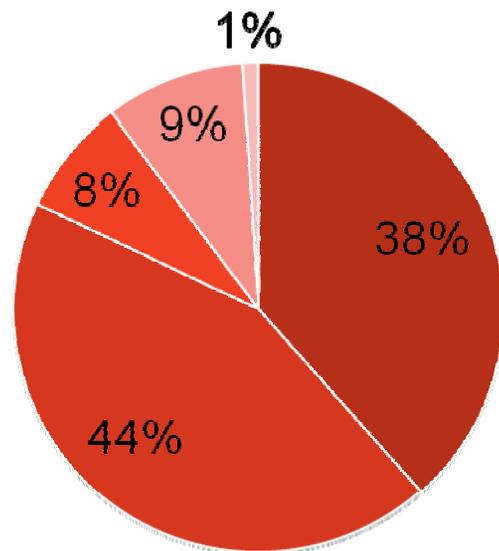


Usefulness of Landlord (Student and Community)



- Did not use
- Not Useful
- Somewhat Useful
- Useful
- Very Useful

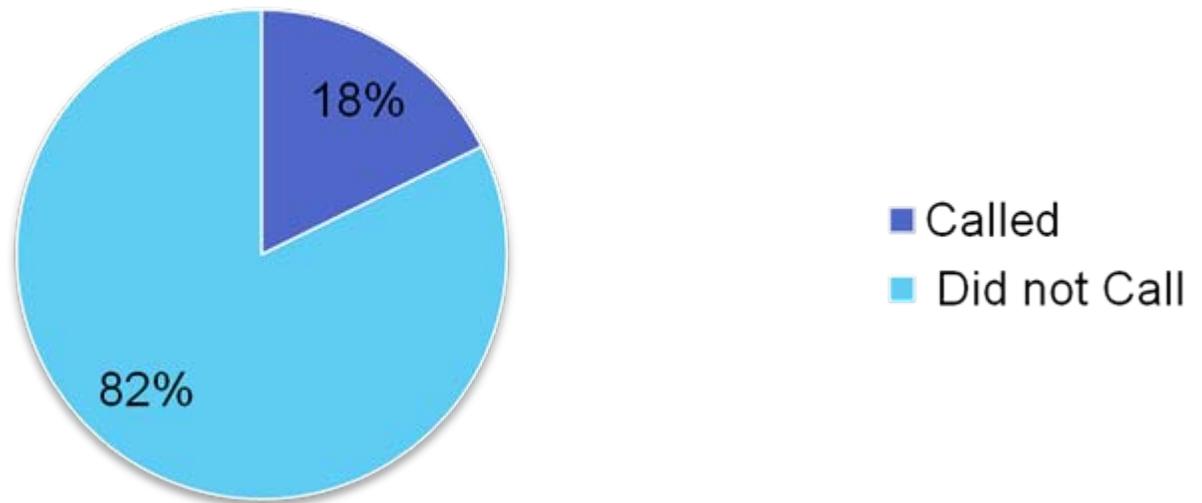
Usefulness of Campus Resources



- Did not use
- Not Useful
- Somewhat Useful
- Useful
- Very Useful

Energy Efficiency Information

Called Utility Company Before Renting



Recommendations

- At the very least
 - Website that serves as a consolidated source of information
 - GIS
 - Utility information with enough years in average to even out variations in usage and weather
 - Nearby amenities
 - Tenant Reviews

Recommendations con't

- Ideally
 - Creation of tenants union
 - Could run the website
 - Provide other services
 - Co-funded between the City and the University of Missouri

Success Story

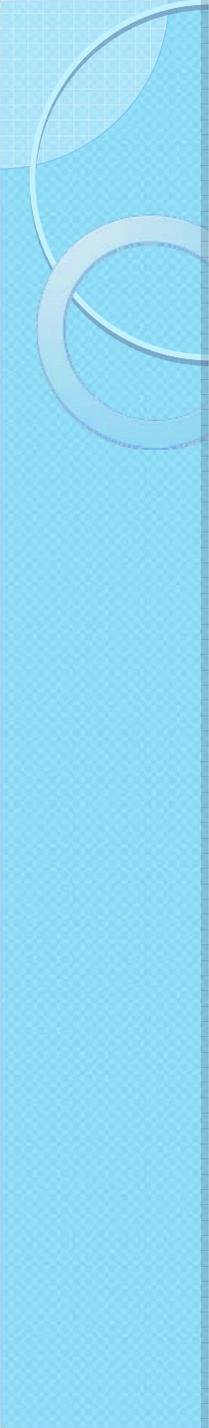
- University of Illinois' Tenant Union
 - Created in the mid-1970s
 - Housed in the Student Union
 - Paid for by student fees
 - Community version is a separate non-profit, but they work closely together
 - Student TU – was used by 40% of student renting population in 2010-2011
 - Community TU – assisted 2100 tenant households during the same period

A Columbia Tenants Association

- Joint funding: student fees, inspection fees, service generated fees
- Precedent with joint positions: Fire Marshall
- Third Party status could allow for Tenant Reviews
- Insures legitimacy and use of website, physical presence, continued education and awareness, catalyst for future endeavors

Acknowledgments

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Questions?