Behavioral modelling internship – Spring – Summer 2021

The Water-Energy modelling lab at the CSU Powerhouse campus intends to hire 1 graduate research intern to work with on an industry collaboration with the American Council for an Energy-Efficient Economy (ACEEE).

Project Description

How does energy efficiency information affect renters' choices? Currently, virtually no rental listings provide information about how much renters can expect to pay in energy costs. Without this information, renters cannot factor energy efficiency into their decision-making when searching for housing. In this project, we will assess whether including energy-use information in rental listing websites impacts renters' choices. We will test whether this information impacts how often renters choose to click on more efficient listings. If energy-use information does influence renters' decisions, then policymakers may be motivated to require this information on rental websites and landlords may be incentivized to invest in efficiency upgrades. This research can provide meaningful data to local governments that are considering energy-use disclosure policies for rental housing.

This project expands on recently released research by ACEEE on energy efficiency information in real estate listings. The research found that homebuyers, shown simulated real estate search results, were more likely to click on efficient listings when they saw efficiency information. Furthermore, the form in which this information was presented significantly affected how much home buyers were willing to increase purchase price to pay for efficiency. This study will examine if these findings also apply to the rental market as well.

We will simulate an online apartment listing website (which is actually a disguised Discrete Choice Experiment) to determine if and how much users value energy efficiency information when they choose which listing to click. Participants will choose their preferred units from several choice sets (a discrete choice model set up like an apartment listing website) but some participants will see energy efficiency information presented in different forms as part of the choice model and some will not. In this way, the experiment will determine not only whether renters are more likely to actually click on listings that contain efficiency information, but also if the financial value of efficiency can be changed by using different presentations of the information (e.g., home energy score as a number, home energy score along a line, estimated annual energy costs, or some combination of forms).

CSU/ACEEE Student Internship

The intern will work with Dr. Steven Conrad and the ACEEE project team on the behavior analysis and modelling aspects of the project. This involves:

1. Working with the research team to identify the behavior motivations of renters and how energy efficiency affects rental decisions
2. Working with Dr. Conrad on the design and coding of the experiment – specifically using choice modelling to drive consumer choice predictions
3. Working with Dr. Conrad and the research team on the analysis of respondent data to develop behavioral models of choice

No prior experience with behavioral modelling or choice experiments is required. Experience with statistical analysis tools (R, SPSS, SAS) is beneficial. The internship will commence in May 2021 and continue over the summer with total involvement between 150 to 300 hours depending on final funding.

Contact Steve Conrad – steve.conrad@colostate.edu for more information.