Understanding the Affect of User Effort on Electricity Feedback and Energy Savings

Joana M. Abreu, Ph.D.

jabreu@fraunhofer.org

Fraunhofer

© Fraunhofer USA

Target behavior:

Obtain feedback about electrical consumption by logging into an online dashboard

Dashboards can

- Display electricity usage and make it visible and specific
- Offer tips about energy saving opportunities relevant to one's household
- Provide feedback in context by offering comparisons with the past
- Model behavior by enabling comparisons within similar household groups
- Setting goals for consumption





Research questions

Can we motivate tenants that don't pay electrical bills to visit online dashboard? Can we motivate people to persist with the behavior and keep track of their performance?

And to use less electricity?



© Fraunhofer USA

Experimental design

Site and recruitment

- Target population: Harvard Grad Students living in the University Housing
- Students self selected to be a part of the study
- Two treatment groups, both have access to an online dashboard
- Bi weekly reminder
 - One group receives a bi-weekly email reminding to log in to the portal
 - Email provides information to on usage and compares usage against previous period of usage
- Duration: 30 weeks (between October 20 and May 15)





© Fraunhofer USA

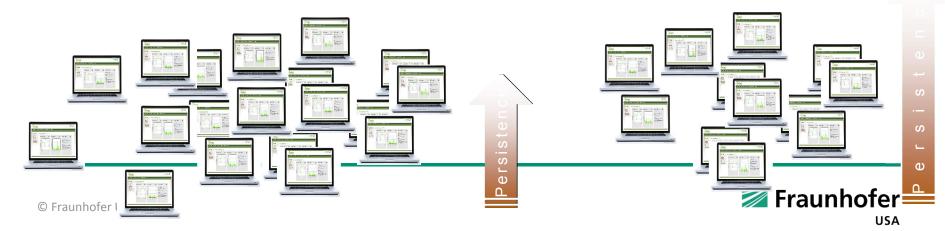
The main takeaways this experiment are





bi-weekly report by email, comparing usage with the previous week and reminding participants to log into the online dashboard





The main takeaways this experiment are

