**W241 – Experiments & Causality Project Progress Report**

Going Green - With Envy or Education?

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## Project Overview

Our group will conduct experiment on whether educating people and social comparison will impact their recycling rate. The experiment has one control group and two treatment groups. The first treatment group focuses on communication tailored to educating consumers about the benefits of recycling to the environment and includes what can be recycled and how to do it. The second treatment group focuses on motivating consumers to recycle more through social comparison. The control group receives no additional information.

## Implementation Plan

Based on initial research and discussion, we plan to execute this experiment in one location (Montgomery County, MD). We will pick a recycling route with lower recycling rate. Generally, one route covers about 600-700 houses and we plan to treat 400 houses (200 in each treatment group). Due to the challenging of measuring volume and content of garbage, we will measure recycling participation: 1/0 indicator for whether a household made materials available for recycle pick-up on the day of collection each week. That means we will count whether there is a recycle bin by the street side for each house.

Since the experiment will be done where Ram lives, he will drive and take videos weekly and the others will process the video and record whether the house has a recycling bin, and which group the house belongs to.

## Progress

Below is a summary of our task and timeline. Thanks to Ram who has done a lot of preliminary research on this topic, including talking to recycling coordinator for Montgomery County and a baseline run.



## Challenge

* It’s very complicated to weigh each bin and determine whether the recycle rate has gone up instead we will be looking at if the consumer has started to use a recycle bin after the treatment has been performed
* Difficult to map the recycling bin and the house number and which house is in treatment group from the video.
* Impossible for us to get current recycling rates by neighborhood or routes for the social comparison. We will try to look for data at higher level such as country or state.

## Cost Estimation

If we treat 400 houses, the total estimated cost is $676. If we treat half of it due to the data unavailability for social comparison, the cost will be $338. We hope for a grant to help cover expenses of the experiment up to $500.

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| --- | --- | --- | --- |
| Treatment Units | 400 |  |  |
| **assume 400 house** | **unit price** | **total cost** | **notes** |
| color print (one page) | 0.42 | 168 | use OfficeDepot |
| print labels | $58 / 100 | 232 | use OfficeDepot |
| envelop & label | $9 /100 | 36 | buy self seal |
| postage stamp | 0.6 | 240 |  |
| glue |  | 5 | for mailing label |
| Total |  | **676** |  |

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