Overview

This document describes the files used to replicate results from the paper "Conservation Spillovers and Behavioral Interventions: Experimental Evidence from Water and Energy Use" published in the *Journal of the Association of Environmental and Resource Economists*.

Replication Instructions

All do-files are in the folder "codeSTATA." To replicate all empirical results:

1. Designate directory in "0_runme"
2. Run "1a_dataprep"
    a. Cleans raw hourly use data and creates variables
    b. Creates pre-treatment electricity billing controls
    c. Merges in weather data, baseline water and electricity use, and assessor data
3. Run "1b_ss_graphs"
    a. Creates Table 1 and Figure 2
4. Run "2a_main_regs"
    a. Creates Table 2, Table 3, Figure 3, and Figure 4.
5. Run "2b_simulation"
    a. Estimates and runs household simulation model and bootstrap
    b. Saves results summarized in Table 4
6. Run "2c_cost_effectiveness"
    a. Estimates cost and damage reductions used to create Table 5.
    b. Creates Tables E.1, E.2, and E.3
7. Run "3a_robustness"
    a. Creates all appendix tables except for survey analysis
8. Run "3b_survey_analysis"
    a. Merges raw survey data with baseline electricity and water use data
    b. Creates Table C.1 and C.2

All figures are saved in "figSTATA" and all tables are saved in "tablesSTATA."

Data Files

Data used in the analysis cannot be shared for privacy reasons. Below we describe the data files used in the replication files and how to obtain them.

1. "BurbankData_20170131.dta" – Raw, hourly meter data for all single-family homes in Burbank, CA. Contact: Burbank Water and Power https://www.burbankwaterandpower.com/about-us/contact-us
2. "elecbilling_20170919.dta" – Monthly electricity billing data for all single-family homes in Burbank, CA. Contact: Burbank Water and Power
3. "weather_20160817.dta" – Hourly temperature, precipitation, and humidity data
4. "PoolAssessorData_20170622_destring" – Assessor data for all homes in Burbank, CA. Contact: https://www.burbankca.gov/departments/community-development/get-property-information

5. “BaselineWater_20171018” – Monthly water billing data for all single-family homes in Burbank, CA. Contact: Burbank Water and Power
6. “Survdata.dta” – Individual survey response data from 2009 California Energy Commission RASS survey. Contact: Glen Sharp, California Energy Commission (glen.sharp@energy.ca.gov).
7. “wholesale_elec_20160906.dta” – Wholesale electricity prices from CAISO OASIS SCE DLAP
8. “Holland_MDelectric_carbon_2011.dta” – Hourly CO2 damages from Holland, Mansur, Muller, and Yates (2016)
9. “Holland_MDelectric_local_2011_Roman.dta” - Hourly local pollution damages from Holland, Mansur, Muller, and Yates (2016)
10. “survey_results_20170728.dta” – Individual survey results from post-treatment survey. Contact: glade@macalester.edu