

Analysis performed November 2014 for California Energy Commission Agreement EPC-14-026, *Examining the Heterogeneity of Energy Efficiency Take-up and Savings Across Socio-Economic and Ethnic Groups Using a Large Scale Quasi-Experiment*:

<u>Participation in Energy-Efficiency Programs By Group</u>	
All California Households	6.0%
By Annual Household Income:	
Less than \$50,000	4.0%
\$50,000 - \$100,000	6.2%
More than \$100,000	10.3%
By Educational Attainment:	
High School or Less	3.6%
Some College or College Degree	6.7%
Master's Degree or More	9.1%

The table above was constructed using household-level microdata from the U.S. Energy Information Administration's 2009 Residential Energy Consumption Survey (RECS). For these calculations, we restricted the sample to include only California households and use RECS sampling weights. There were 1,600+ California households in the most recent RECS, so these proportions are estimated precisely.

We are interested, in particular in a series of questions in RECS that ask households whether they have received a utility rebate in the last 4 years while purchasing some major appliance. This question is asked separately for several different appliances and to get an idea of overall participation we combined refrigerators, freezers, dishwashers, clothes washers, furnaces, central air conditioners, and window replacements. So the table above reports the fraction of households in each category that received a utility rebate for some type of major appliance.

More work could certainly be done to refine these estimates, but the basic comparisons are extremely interesting. Overall about 6% of California households have received some type of utility rebate over the last four years. This ranges widely however across households with different levels of income, and across households for which the household head has different levels of educational attainment. Households with more than \$100,000 in annual income are more than twice as likely to have participated, and households for which the household head has a master's degree or more are more than twice as likely to have participated than high school graduates.