



Citizens' Climate Lobby

Financial Impact on Households of Carbon Fee and Dividend

Summary by Jerry Hinkle and Daniel Richter

Introduction

In February, 2016, Citizens' Climate Education (CCE) and Citizens' Climate Lobby (CCL) released a working paper that assessed the net financial impact on U.S. households of a \$15/ton of CO₂ carbon fee in which all proceeds are returned to households on a per-capita basis. The purpose of that working paper (see link at end to download) was to respond to enduring interest from members of Congress in how their own constituents would fare under CCL's Carbon Fee and Dividend proposal. To complete that study CCE and CCL funded Kevin Ummel, an independent researcher at the International Institute for Applied Systems Analysis and author of a separate, earlier study estimating household carbon emissions with zip-code level detail.

The analysis is “static” and does not consider the “dynamic” effects the policy and corresponding price changes would have on the general economy. It is assumed the entire pollution fee is passed through in the form of higher prices “overnight”, without changes in production or consumption in response to the price signal.

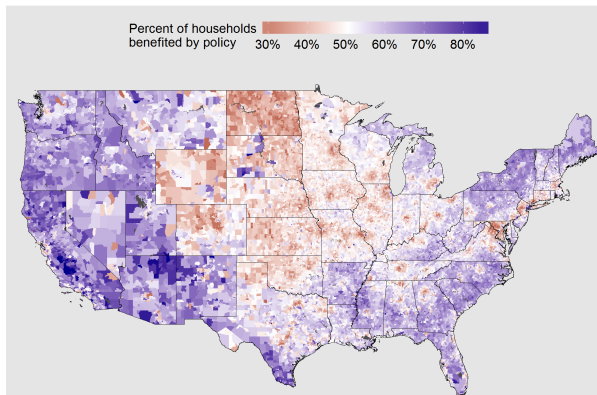


Figure 1: Map of US showing which zip codes have more (blue) or fewer (red) households benefiting with Carbon Fee and Dividend. Overall, 54% of households, and 59% of individuals benefit.

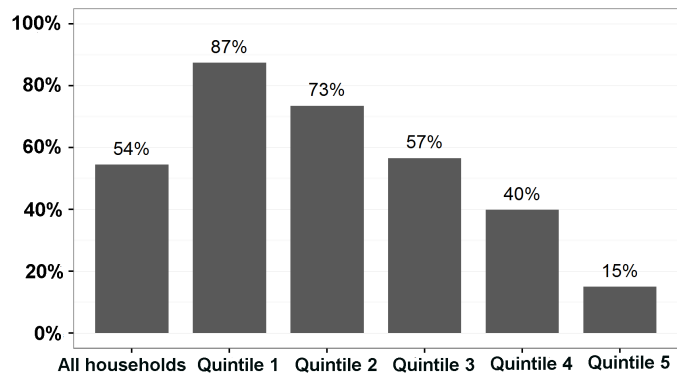


Figure 2: Percent of Households Benefited, by Income quintile. The average household in Quintile 1 sees a net gain of about \$300 per year, equal to 1.87% of income. Quintile 1 has a median (or typical) income of 95% of the federal poverty level (FPL).

Study Highlights:

- 54% of US households and 59% of individuals receive a net financial benefit as the dividend exceeds the estimated increase in costs of goods purchased (Figure 1). This analysis includes none of the health and environmental benefits that come with the reduction of GHGs.

- The gains are concentrated among those considered “most vulnerable” within our society: those with lower incomes (Fig 2), the youngest and oldest (Fig 3), and minorities (Fig 4). Since the Dividend formula is not means-tested in any way, this effect stems simply from charging for pollution and returning proceeds equally per person; not any type of redistribution.
- Though households with higher incomes generally experience a net loss in this study, the impact would be minimal. About 25% of all households in the 4th and 5th quintiles actually benefit. Among those that do not, the typical loss is equal to just 0.23% of income. Improved attribution of emissions means that the top quintile has an estimated per-person CO2 footprints 2.2 times larger than those in the bottom quintile, down from 2.9 found in the author's earlier work.

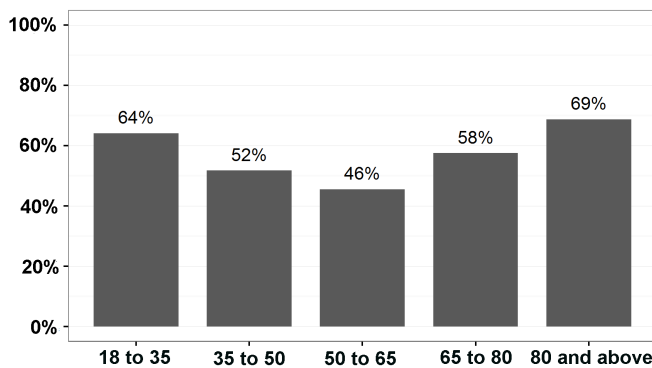


Figure 3: Percent of Households benefited, by age group. Older households do well because they tend to have smaller footprints, reflecting reduced mobility and less consumption as a result of low fixed incomes. Younger households tend to be larger – and therefore benefited by the dividend formula – in addition to having less income/consumption in early career.

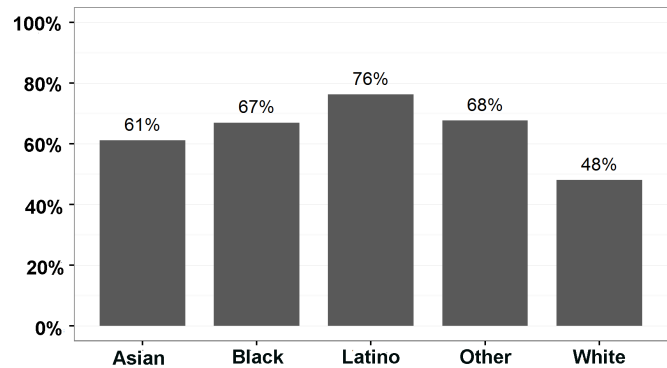


Figure 4: Percent of Households benefited, by race. Minority households do well because on average they have lower income and/or more people per household, both associated with a lower footprint. Since the dividend formula is per capita, households with more members generally see higher net benefit.

Reducing Costs

How can households who experience a net loss reduce their carbon footprint, and thus their pollution costs? There are many avenues for this, from more efficient transportation (e.g., public transit), more efficient living conditions (e.g., higher household density), and careful consumer choices. Being static, with price signals passed on “overnight”, this study did not allow for or anticipate any such changes in behavior.

Conclusions

This new study provides a useful look at how every congressional district does in unprecedented detail. Though overall projections for how many households benefit are lower than some previous estimates, the overall progressivity of this policy is highlighted, especially in contrast to other options for addressing climate change.