

Revenue Use and Public Support for A Carbon Tax

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Carbon pricing is generally seen by economists and others as the most efficient and effective set of climate mitigation policies

But, low levels of public support for carbon pricing (Carattini, Carvalho, and Fankhauser 2018)

- Some increase with funds being used for renewable energy (Kotchen, Turk, and Leiserowitz 2017; Amdur, Rabe, and Borick 2014)
- Some increase with a tax rebate (Carattini, Kallbekken, and Orlov 2019)

Does revenue use influence public support for a carbon tax?

We leverage a survey experiment to examine support for a carbon tax

- Overall support, pre-and-post revenue use treatments
- Ranking of revenue uses post treatment
- Relative support for a carbon compared to others climate policies
- Subset analysis for ideology and partisanship

Hypotheses

Support

- More support when tax is used for *renewable energy* or a *tax rebate*
- More support when tax is used for *deficit reduction* or a *tax rebate* for *conservatives* and *Republicans*

Revenue ranking

- Ranking of revenue use responsive to experimental condition

Relative support

- Increase in ranking when tax is used for *renewable energy* or a *tax rebate*
- Increase in ranking when tax is used for *deficit reduction* or a *tax rebate* for *conservatives* and *Republicans*

Nationally representative sample obtained through Qualtrics

Quotas for age, gender, race/ethnicity

Survey administered through Qualtrics

N = 1657

Respondents were presented with a prompt about a carbon tax, including pro and con arguments

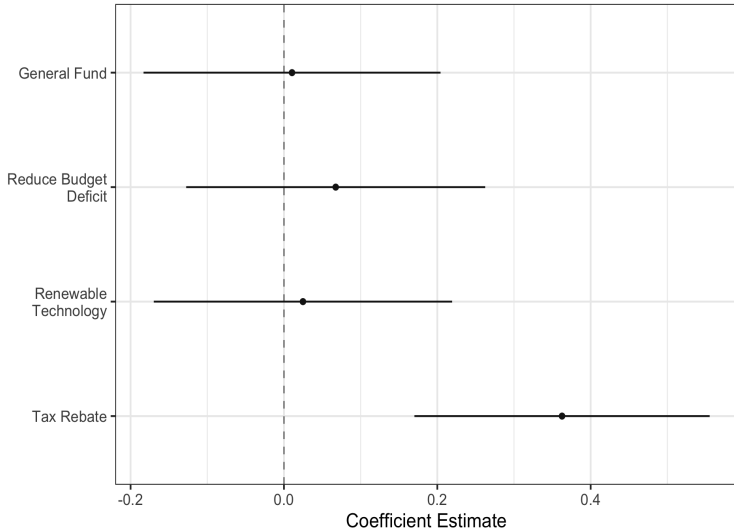
Randomly assigned to one of five tracks:

- **General Fund** (n=334)
- **Reduce Budget Deficit** (n=325)
- **Renewable Technology** (n=328)
- **Tax Rebate** (n=342)
- **Control** (n=326)

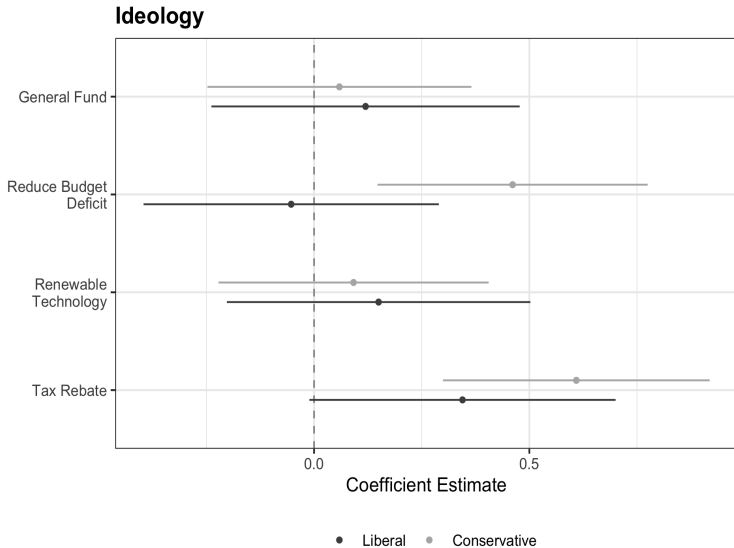
Carbon tax support pre-treatment (1 to 7 scale): $m = 3.97$

Post-treatment support: 4.005

Results: Support

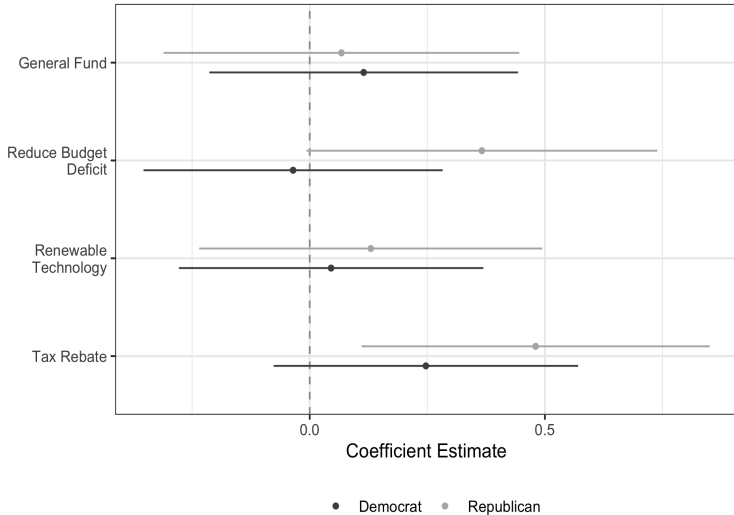


Results: Support by Political Beliefs

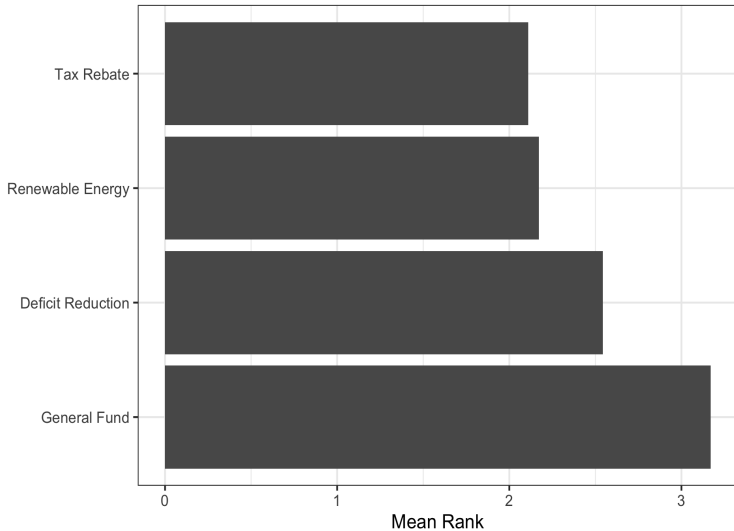


Results: Support by Political Beliefs

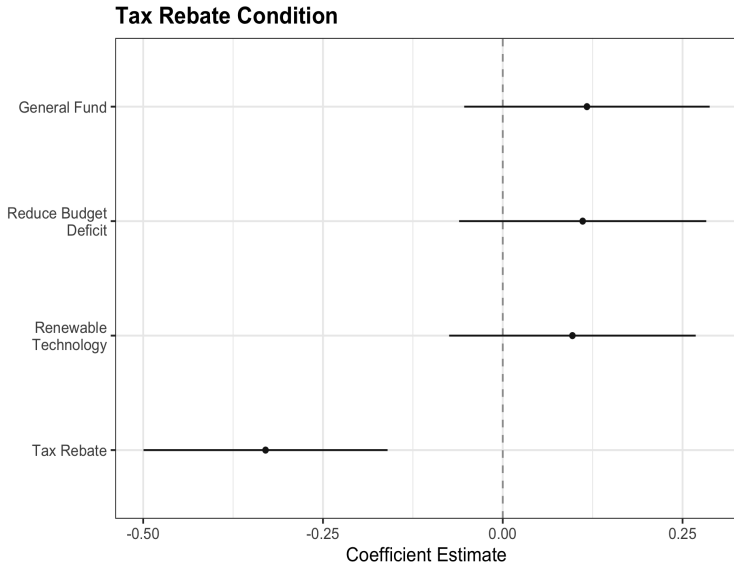
Partisanship



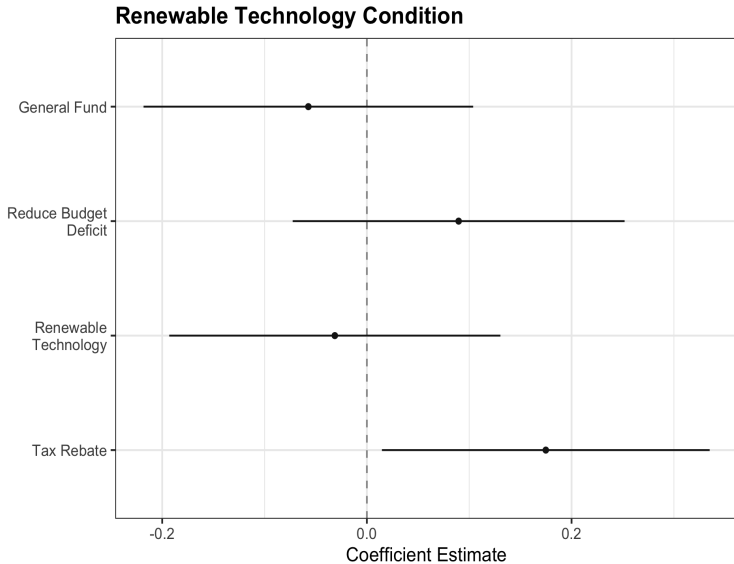
Results: Revenue Use



Results: Revenue Use

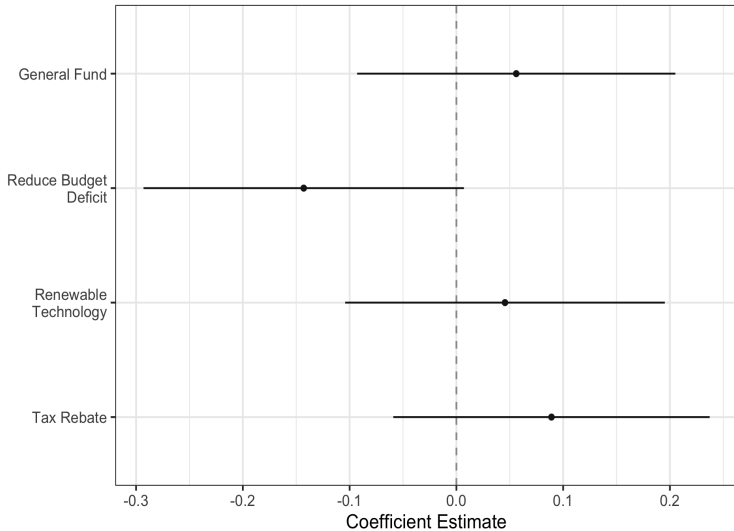


Results: Revenue Use



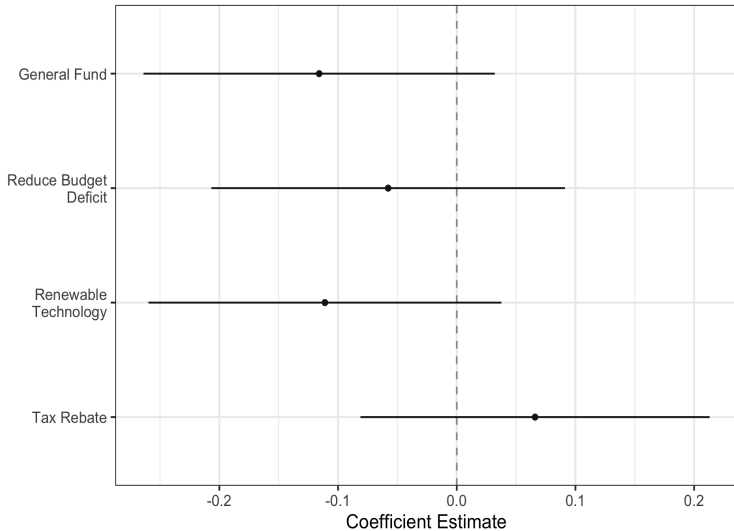
Results: Revenue Use

Deficit Reduction Condition

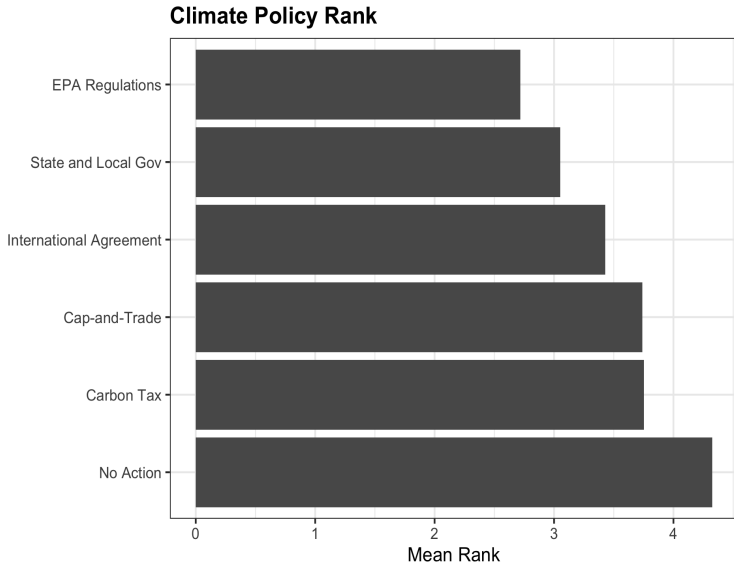


Results: Revenue Use

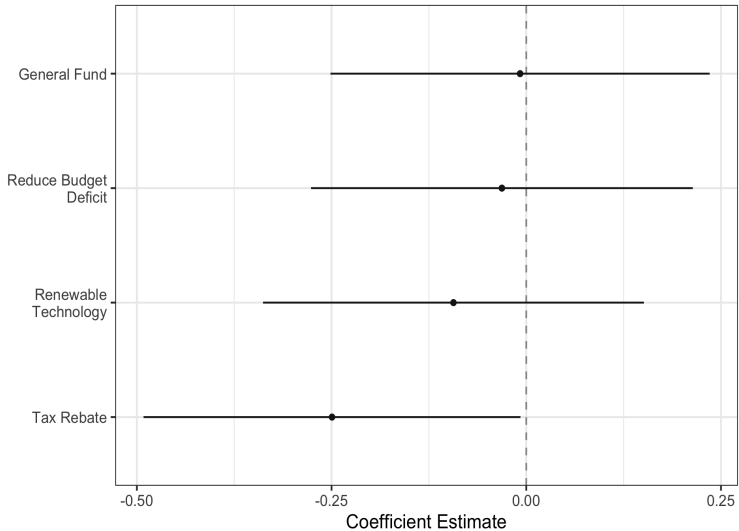
General Fund Condition



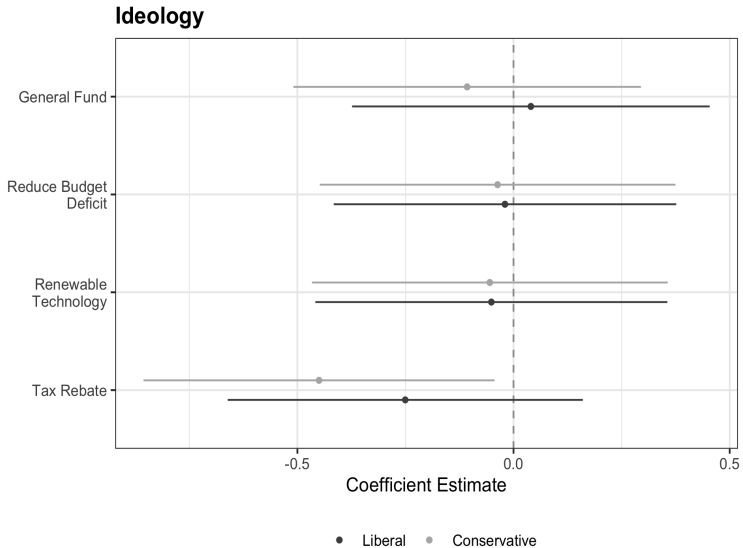
Results: Climate Policy Rankings



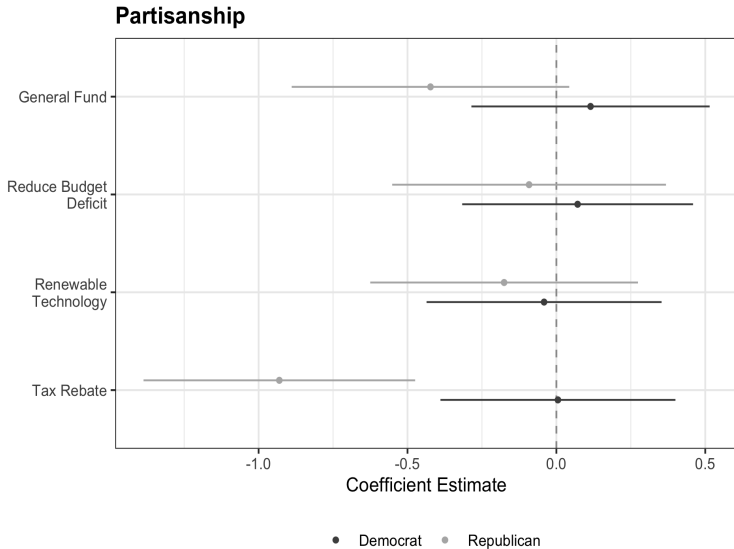
Results: Carbon Tax Ranking



Results: Carbon Tax Ranking by Political Beliefs



Results: Carbon Tax Ranking by Political Beliefs



Revenue use can shift support

- Tax rebate
- Tax rebate, deficit reduction for conservatives and Republicans

Trade-offs between tax refund and renewable energy investment

Carbon pricing still unpopular relative to other policy options

- Tax rebate does shift relative support

References

- Amdur, David, Barry G. Rabe, and Christopher P. Borick. 2014. "Public Views on a Carbon Tax Depend on the Proposed Use of Revenue." *Issue in Energy and Environmental Policy*.
- Carattini, Stefano, Maria Carvalho, and Sam Fankhauser. 2018. "Overcoming Public Resistance to Carbon Taxes." *Wiley Interdisciplinary Reviews: Climate Change* 9 (5): e531. <https://doi.org/10.1002/wcc.531>.
- Carattini, Stefano, Steffen Kallbekken, and Anton Orlov. 2019. "How to Win Public Support for a Global Carbon Tax." *Nature* 565 (7739): 289–91. <https://doi.org/10.1038/d41586-019-00124-x>.
- Kotchen, Matthew J., Zachary M. Turk, and Anthony A. Leiserowitz. 2017. "Public Willingness to Pay for a US Carbon Tax and Preferences for Spending the Revenue." *Environmental Research Letters* 12 (9).