

# Climate Change and Individual Behavior

Based on BFI Working Paper 2022-66, “[Climate Change and Individual Behavior](#),” by René Bernard, Goethe University and Deutsche Bundesbank; Panagiota Tzamourani, Deutsche Bundesbank; and Michael Weber, Chicago Booth

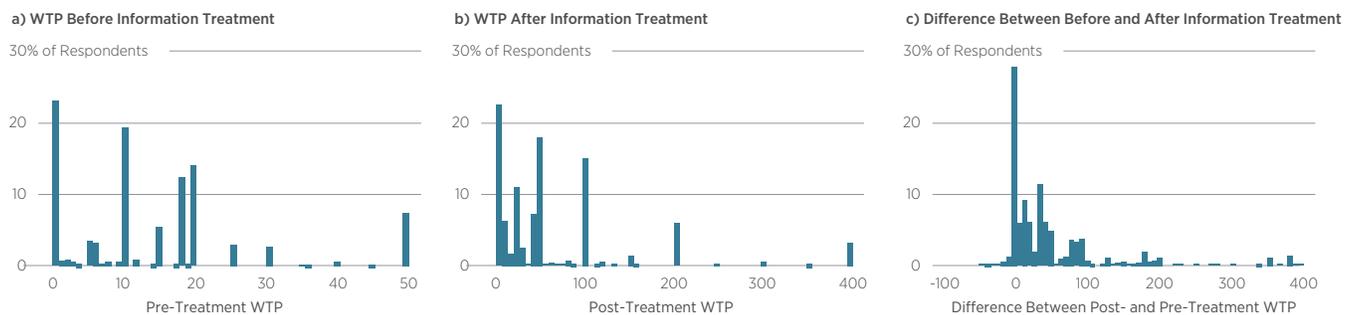
*Receiving truthful information about ways to reduce CO2 emissions increases individuals’ willingness to pay for voluntary CO2 offsetting, with responses varying according to sociodemographic characteristics and prior beliefs regarding climate change.*

It is understood that individuals can mitigate the negative effects of CO2 emissions on the earth’s climate by the lifestyle choices they make and by their support of emissions-reducing policies. However, little is known about what shapes a person’s views about climate change. Do people change their behavior in response to certain information? And what happens if the same information is presented with different framing? Does such framing influence a person’s views and, ultimately, affect her behavior? What price is she willing to pay to reduce CO2 emissions?

These and similar questions motivate this new working paper, which studies how information on carbon emission reduction influences participants’

willingness to pay (WTP) for voluntary offsetting CO2 emissions. The authors’ analysis is based on a large representative survey of the German population, to whom they provide information on ways to reduce individual CO2 emissions. Broadly described, individuals were assigned to four treatment groups and one control group. The treatment groups received identical, truthful information on ways individuals may reduce CO2 emissions, but they varied the framing of the treatments, with two groups receiving information framed as scientific research, and two groups receiving information on the behavior of people like them. The authors then determined individuals’ willingness to purchase carbon offsets both before and after receiving the information.

**Figure 1 •** Distribution of the Willingness to Pay (WTP) for CO2 Compensation



Notes: This figure plots the distribution of the willingness to pay for CO2 compensation for a continental flight before any information treatment (Panel A), the willingness to pay for CO2 compensation for an intercontinental flight after information treatments (Panel B) and the difference between the two (Panel C). Around 23% of respondents are not willing to pay anything, whereas 28% of respondents are willing to pay €20 or more (before any information treatments).

Their findings include the following:

- Providing information on actions to fight climate change increases individuals' WTP for voluntary carbon offsetting by €15 compared to the change in the control group, which corresponds to about one-third of the overall increase in WTP for carbon offsetting.
- Framing matters: Peer framing increases the WTP on average by €18, whereas the scientific framing increases the average WTP by €12. Within the scientific framing, the government framing increases WTP by about €3 more than the general research framing, but little variation exists within the peer framing.
- Older survey participants and those with a secondary school certificate, but no tertiary education, are most responsive to the provided signal; women also react strongly.
- Participants that were ex ante more positively disposed toward taking actions to fight climate change display a larger reaction to information treatments. Specifically, individuals with a higher prior WTP, a higher degree of climate concerns, and those with a strong environmental stance are more responsive.

- Regarding politics, supporters of a center-right (CDU/ CSU) and far right (AfD) party do not react at all to information treatments. Supporters of a center-left party (SPD) increase their WTP by more than €30 in response to the information treatments. The treatment effect for supporters of the Green party is similar in magnitude but only marginally significant.
- A follow-up survey of the endogenous information acquisition of individuals finds that individuals choose information that largely aligns with their prior stance toward a topic, while they disregard information that might challenge their existing beliefs.

**Bottom Line:** This work suggests that information is a powerful tool in persuading people to reduce their carbon footprint. More than just information, though, appealing to internalized personal norms, or invoking adherence to social norms, can be effective in motivating individuals toward more climate-friendly behavior.

## READ THE WORKING PAPER

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[bfi.uchicago.edu/working-paper/202266](https://bfi.uchicago.edu/working-paper/202266)

## ABOUT OUR SCHOLAR



### **Michael Weber**

*Associate Professor of Finance  
and Fama Faculty Fellow, Chicago Booth*  
[chicagobooth.edu/faculty/directory/w/  
michael-weber](https://chicagobooth.edu/faculty/directory/w/michael-weber)

