

Fighting Climate Change: Attitudes Toward Climate Policies in Poland

Supplement for “Fighting Climate Change:
International Attitudes Toward Climate Policies”
by Antoine Dechezleprêtre, Adrien Fabre, Tobias Kruse,
Bluebery Planterose, Ana Sanchez Chico, and Stefanie Stantcheva

This supplement to “Fighting Climate Change: International Attitudes Toward Climate Policies” presents results for Poland, based on a sample of 2,053 respondents.

The full questionnaire for Poland is available through the following link:

https://lse.eu.qualtrics.com/jfe/form/SV_7Qc5KCPcIVv5qFE?Q_Language=PL

The climate policies video is available here:

https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F_etc0tRoDmoSXkSq.

The climate impacts video is available here:

https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F_6SahJCEqAUd5bdc.

Table 1: Sample representativeness – Poland

| | Poland | |
|---------------------------|------------|--------|
| | Population | Sample |
| Sample size | NA | 2,053 |
| Male | 0.48 | 0.44 |
| 18-24 years old | 0.09 | 0.09 |
| 25-34 years old | 0.17 | 0.18 |
| 35-49 years old | 0.28 | 0.30 |
| More than 50 years old | 0.46 | 0.42 |
| Income Q1 | 0.25 | 0.22 |
| Income Q2 | 0.25 | 0.27 |
| Income Q3 | 0.25 | 0.27 |
| Income Q4 | 0.25 | 0.25 |
| Region 1 | 0.12 | 0.10 |
| Region 2 | 0.14 | 0.13 |
| Region 3 | 0.23 | 0.21 |
| Region 4 | 0.29 | 0.33 |
| Region 5 | 0.22 | 0.23 |
| Urban | 0.57 | 0.66 |
| College education (25-64) | 0.33 | 0.46 |
| Share of voters | 0.63 | 0.87 |
| Voters: Left | 0.02 | 0.06 |
| Voters: Center | 0.16 | 0.13 |
| Voters: Right | 0.81 | 0.76 |
| Voters: Other | 0.00 | NA |
| Voters: Not reported | NA | 0.05 |
| Inactivity rate (15-64) | 0.29 | 0.18 |
| Unemployment rate (15-64) | 0.03 | 0.09 |
| Employment rate (15-64) | 0.69 | 0.75 |

Note: This table displays summary statistics of the sample alongside nationally representative statistics. For *College education (25-64)*, the sample statistics are provided for respondents aged between 25 and 64 years old. For the *Share of voters*, the sample statistics include the share of people who indicated having voted. For the *Voters* variables, the sample statistics include the share of respondents who indicated voted for a party/candidate classified in each category, among respondents who indicated having voted. The *Voters: Not reported* category includes people who indicated having voted but did not report the candidate/party they voted for. For *Inactivity rate (15-64)*, the sample statistics include the share of respondents aged between 15 and 64 years old who indicated being either “*Inactive (not searching for a job)*,” a “*Student*,” or “*Retired*.” For *Unemployment rate (15-64)*, the sample statistics include the share of respondents aged between 15 and 64 years old who indicated being “*Unemployed (searching for a job)*”, among active people (“*Unemployed (searching for a job)*,” “*Full-time employed*,” “*Part-time employed*,” or “*Self-employed*”). For *Employment rate (15-64)*, the sample statistics include the share of respondents aged between 15 and 64 years old who indicated being either “*Full-time employed*,” “*Part-time employed*,” or “*Self-employed*.” Detailed sources for each variable, as well as the definitions of regions, college education, urban, and voting categories are available in Appendix A-7 of “Fighting Climate Change: International Attitudes Toward Climate Policies.”

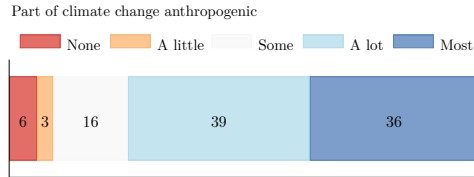
Table 2: Distribution of economic leaning by vote

| | Economic leaning | | | | | |
|---------------------------|------------------|------|--------|-------|------------|--------------|
| | Very left | Left | Center | Right | Very right | Not reported |
| Andrzej Duda | 0.04 | 0.06 | 0.20 | 0.53 | 0.70 | 0.04 |
| Krzysztof Bosak | 0.01 | 0.02 | 0.03 | 0.08 | 0.13 | 0.04 |
| Marek Jakubiak | NA | NA | 0.00 | 0.01 | 0.00 | NA |
| Mirosław Piotrowski | NA | NA | NA | 0.00 | 0.00 | NA |
| Paweł Tanajno | NA | 0.01 | 0.00 | NA | NA | NA |
| Rafał Trzaskowski | 0.58 | 0.60 | 0.32 | 0.17 | 0.08 | 0.41 |
| Robert Biedroń | 0.15 | 0.09 | 0.03 | 0.01 | 0.00 | 0.11 |
| Stanisław Żółtek | NA | NA | 0.01 | 0.00 | NA | NA |
| Szymon Hołownia | 0.12 | 0.10 | 0.14 | 0.06 | 0.02 | 0.04 |
| Waldemar Witkowski | 0.01 | 0.01 | 0.00 | NA | NA | NA |
| Władysław Kosiniak-Kamysz | 0.02 | 0.02 | 0.01 | 0.01 | NA | NA |
| Vote not reported | 0.03 | 0.02 | 0.06 | 0.02 | 0.01 | 0.04 |
| Did not vote | 0.04 | 0.07 | 0.18 | 0.09 | 0.05 | 0.33 |

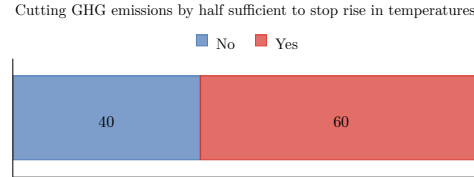
Note: This table displays for each economic leaning the share of votes (among people who indicated having voted), as well as the share of respondents who did not indicate having voted.

Figure 1: Knowledge about climate change

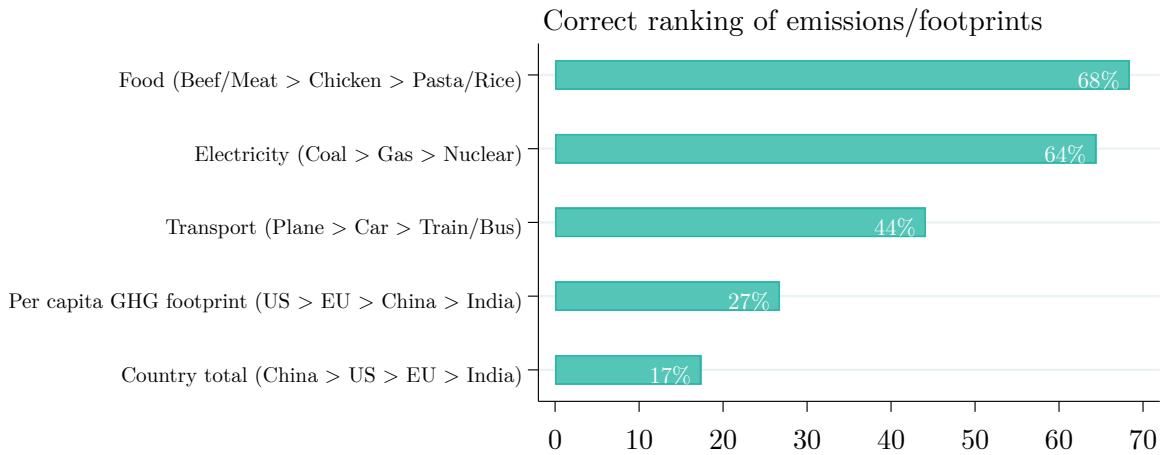
(A) “What part of climate change do you think is due to human activity?”



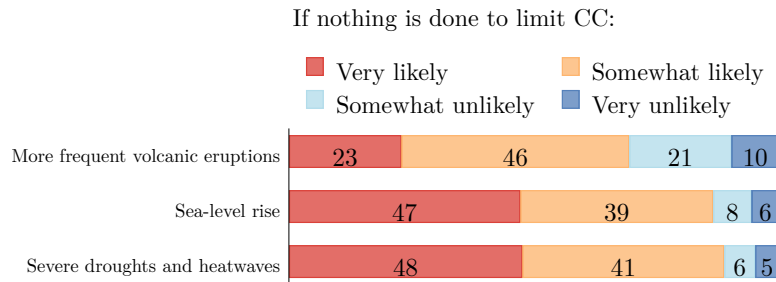
(B) “Do you think that cutting global GHG emissions by half would be sufficient to eventually stop temperatures from rising?”



(C) GHG Emission Ranking

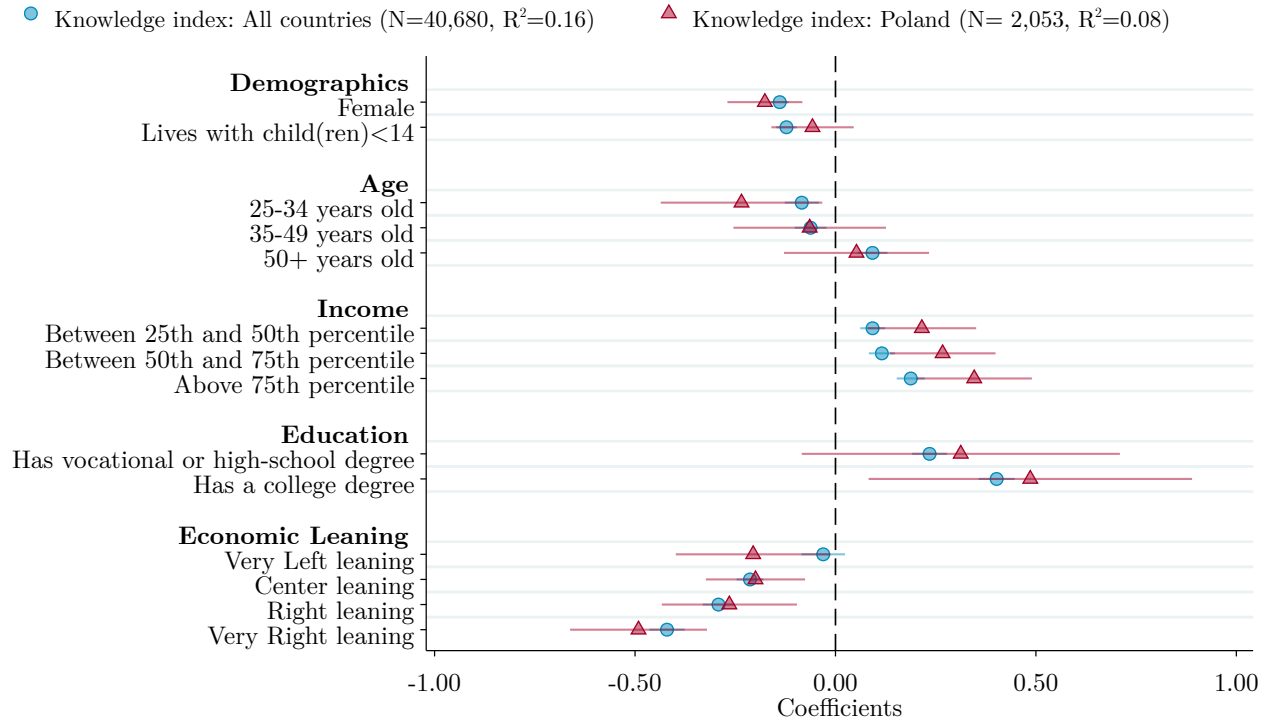


(D) “If nothing is done to limit climate change, how likely do you think it is that climate change will lead to the following events?”



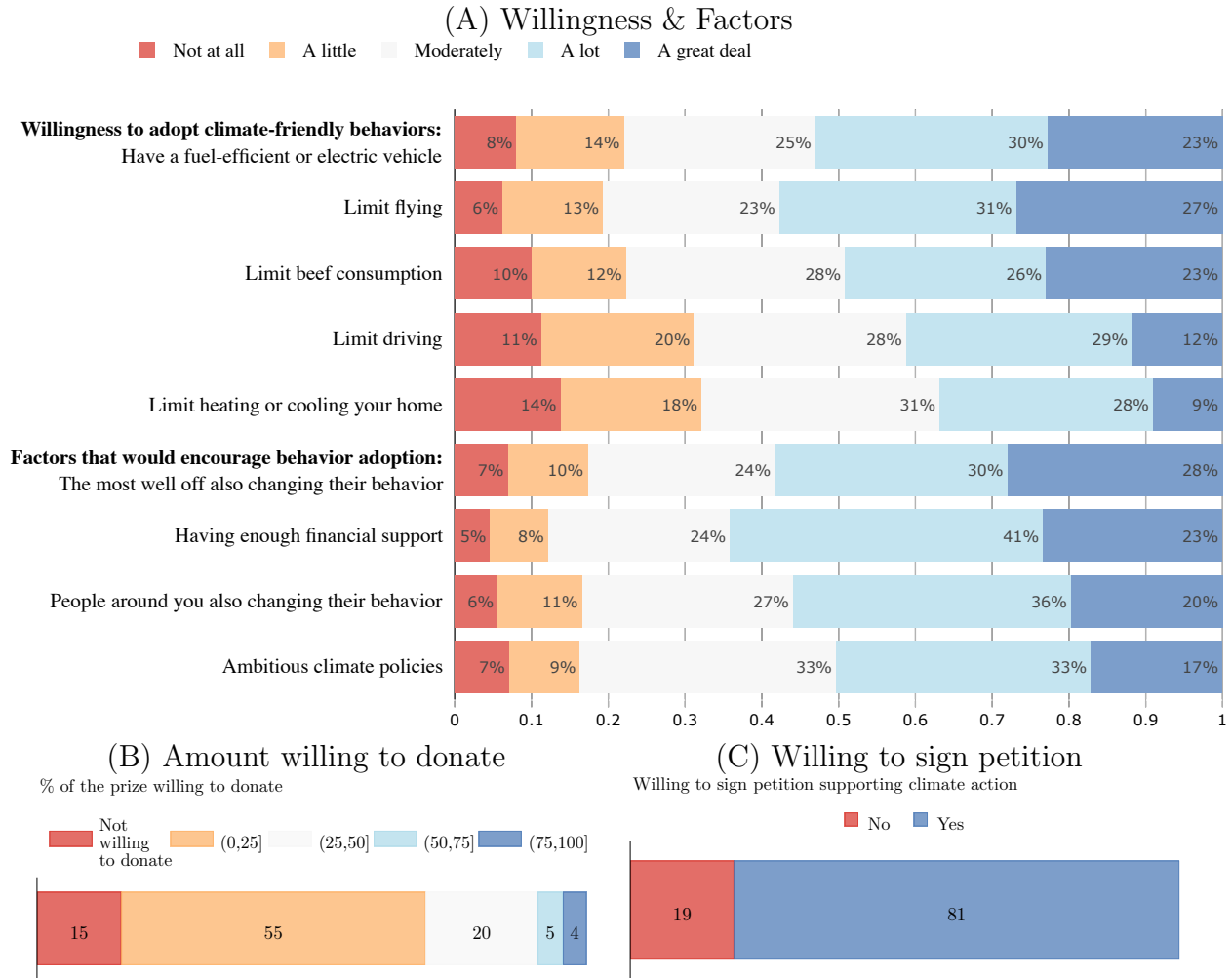
Note: Panel A, B, and C show the distribution of answers to each of the questions mentioned. Panel C shows the percentage of respondents who gave the correct ranking in terms of greenhouse gas emissions for each topic. The shares represented are based on respondents in the control group only (who did not see any pedagogical videos)

Figure 2: Correlation between knowledge (*Knowledge index*) and socioeconomic characteristics



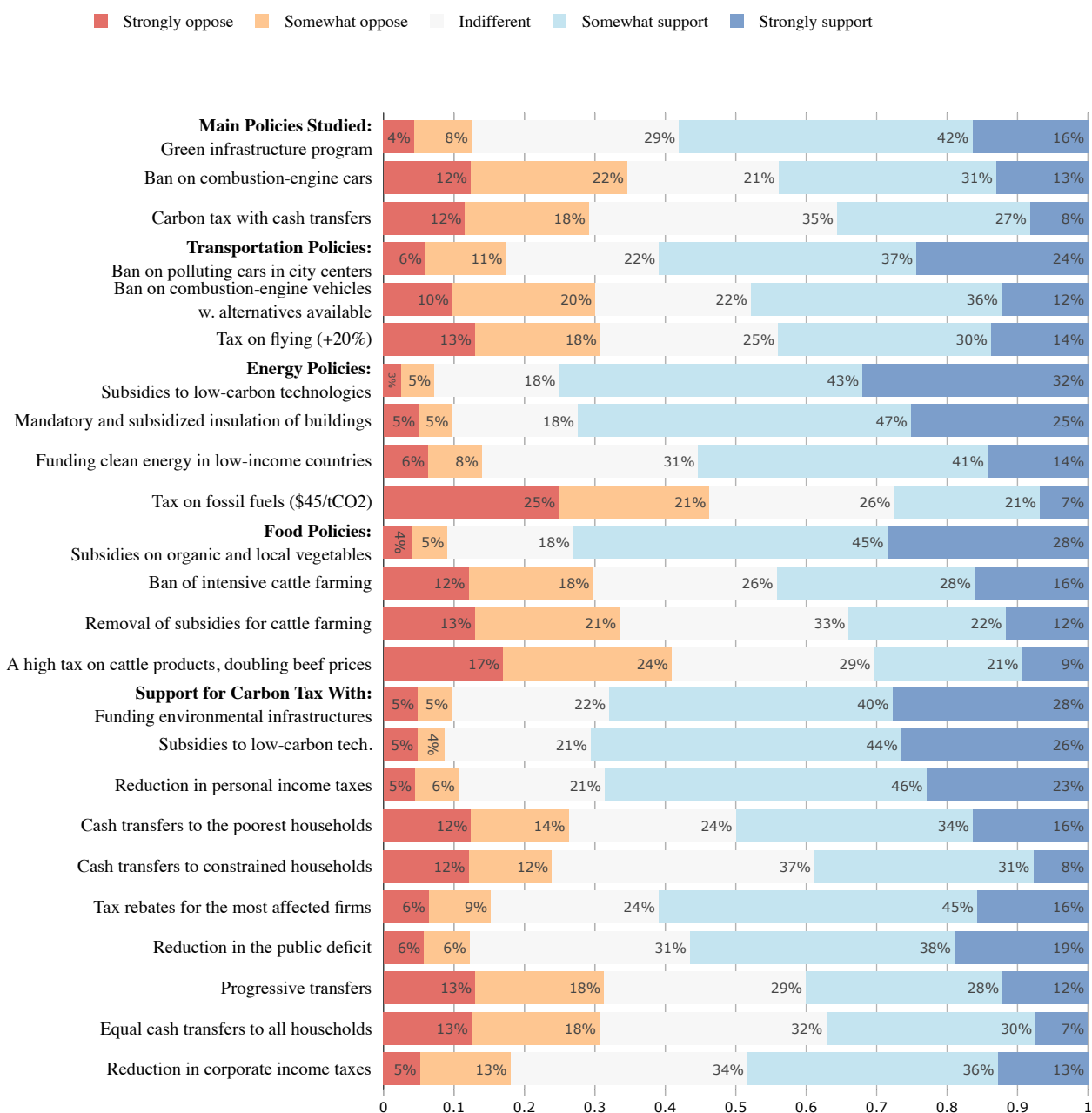
Note: The figure shows the coefficients from an OLS regression of the *Knowledge index* on indicators for individual socioeconomic characteristics. Treatment indicators are included but not displayed. The omitted categories are “male” for *gender* (*gender*: “other” is not displayed), “18-34 years old” for *age*, lowest income quartile for *income*, “no schooling, or highest level achieved is primary or lower secondary education” for *education*, “left leaning” for *economic leaning*. See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for variable definitions.

Figure 3: Willingness to adopt climate-friendly behaviors



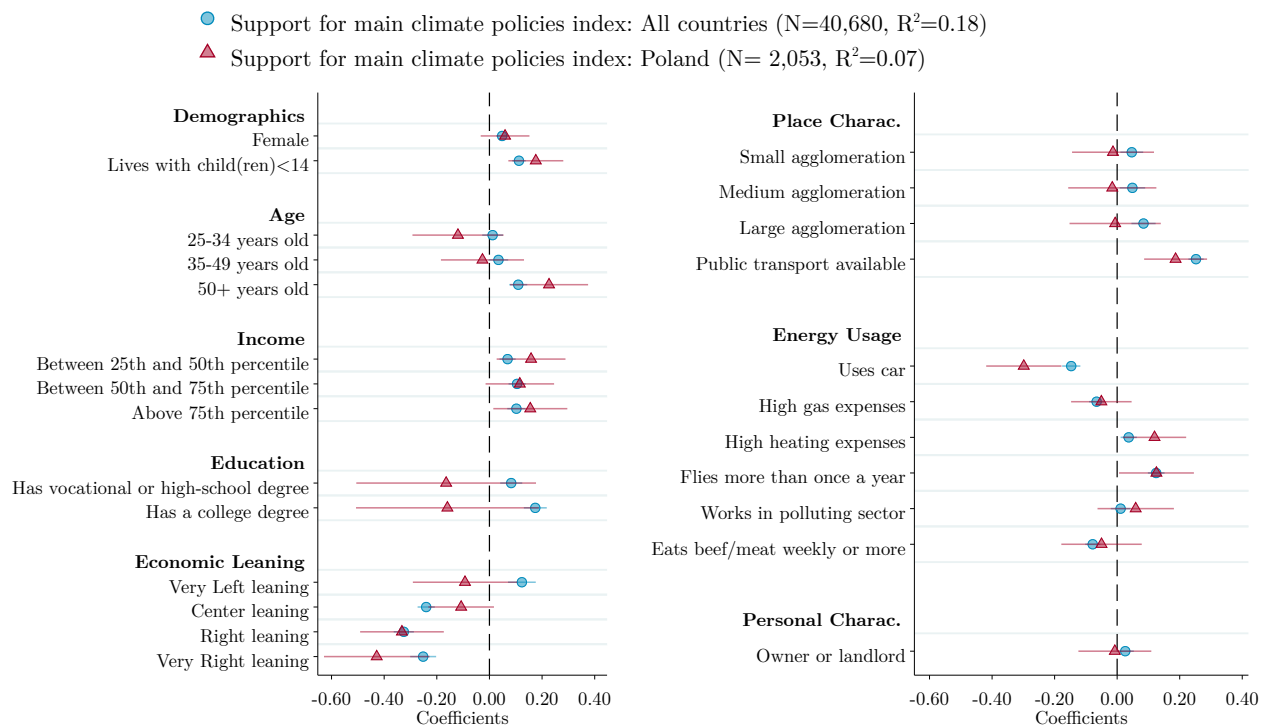
Note: Panel A shows the distribution of answers to two questions, *Willingness to adopt climate-friendly behaviors* are answers to the question “*To what extent would you be willing to adopt the following behaviors?*” and *Factors that would encourage behavior adoption* correspond to answers to the question “*How important are the factors below in order for you to adopt a sustainable lifestyle (i.e. limit driving, flying, and consumption, cycle more, etc.)?*”. Panel B displays the percentage of the prize people are willing to donate (0%, between 0% and 25%, between 25% and 50%, between 50% and 75%, above 75%). Panel C shows the shares of respondents willing to sign a petition to “stand up for real climate action”. All results are based on answers from respondents in the control group only (who did not see any pedagogical videos).

Figure 4: Share of respondents who support or oppose climate change policies.



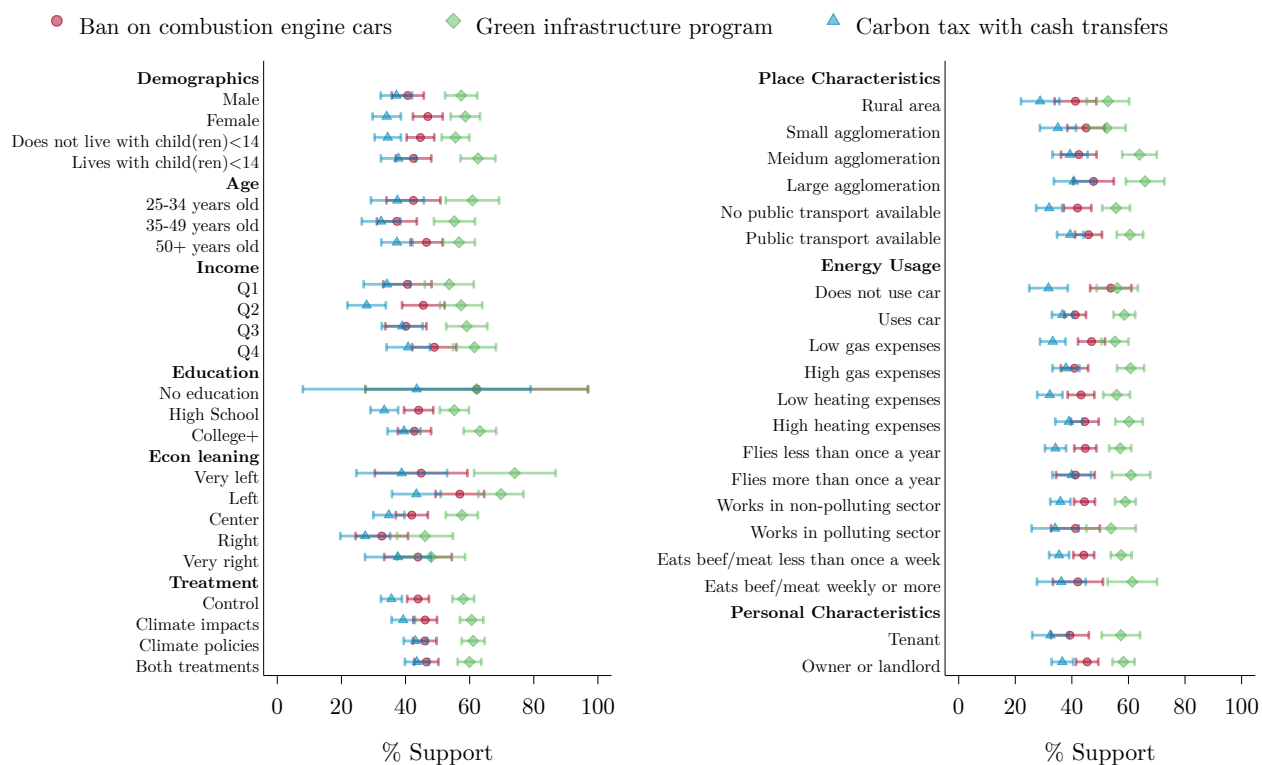
Note: The figure shows the distribution of support to each policy, based on answers from respondents in the control group only (who did not see any pedagogical videos). For the exact phrasing of each question, see Appendix A-5 of “Fighting Climate Change: International Attitudes Toward Climate Policies.”

Figure 5: Correlation between “*Support for main climate policies index*” and socioeconomic and energy usage characteristics



Note: The figure shows the coefficients from a regression of the *Support for main climate policies index* on socioeconomic indicators (left panel) and energy usage indicators (right panel). In the right panel, we control for but do not display the coefficients on socioeconomic indicators. Treatment indicators are included but not displayed. The omitted category for *Place characteristics* is “Rural or very small agglomeration.” For a list of all omitted categories, see the notes to Figure 2. See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for detailed definitions of the variables.

Figure 6: Share who support the main climate policies by socioeconomic, energy usage characteristics, and treatment group



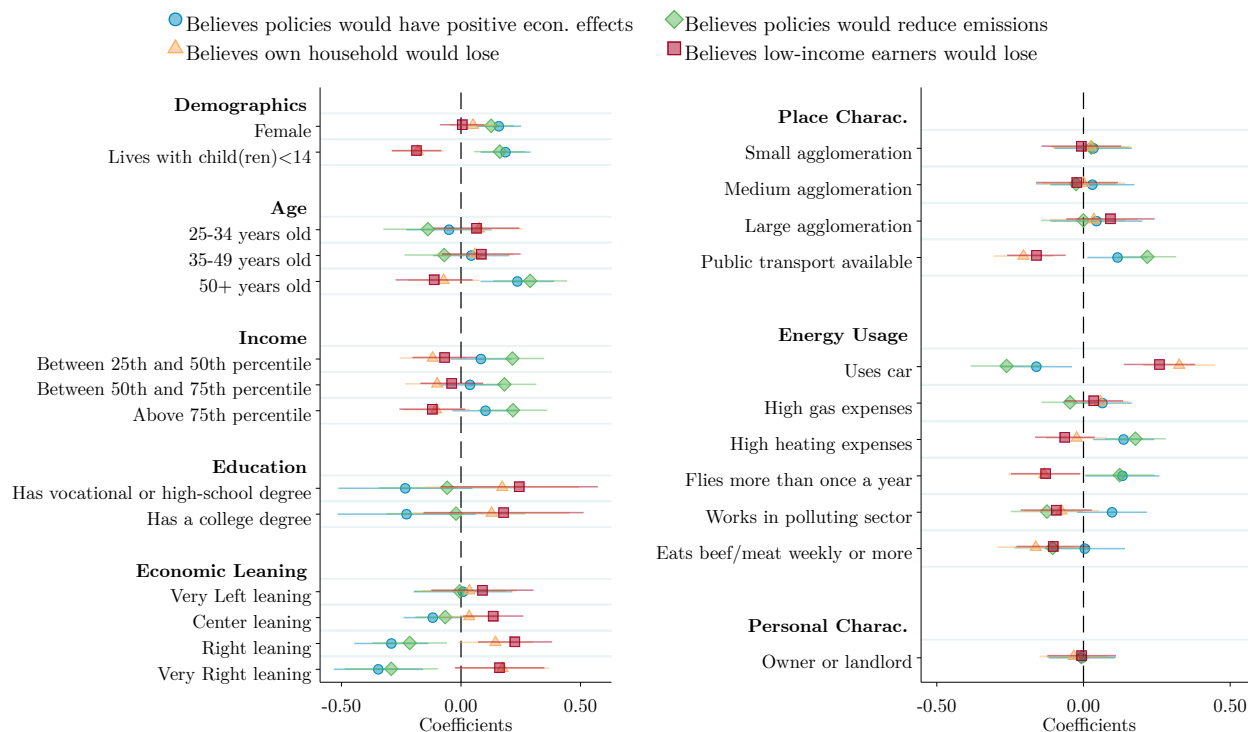
Note: The figure shows the share of respondents who support (somewhat or strongly) each of the three main policies, by group. Except for the rows labeled “Treatment” all means are taken over respondents in the control group only (who did not see any pedagogical videos). A 90% confidence interval is displayed. See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for detailed variable definitions.

Figure 7: Perceived characteristics of the main policies

| | Green Infrastructure Program | | | Carbon Tax w. Cash Transfers | | | Ban on Combustion-Engine Cars | | |
|---|------------------------------|-----------|-------------|------------------------------|-----------|-------------|-------------------------------|-----------|-------------|
| | Poland | High Inc. | Middle Inc. | Poland | High Inc. | Middle Inc. | Poland | High Inc. | Middle Inc. |
| Effectiveness of Main Climate Policies | | | | | | | | | |
| Reduce air pollution | 81 | 76 | 83 | 74 | 68 | 80 | 79 | 79 | 84 |
| Reduce GHG emissions/Reduce CO ₂ emissions from cars | | | | 66 | 64 | 75 | 72 | 73 | 78 |
| Make electricity production greener | 78 | 70 | 78 | | | | | | |
| Encourage insulation of buildings | | | | 71 | 64 | 69 | | | |
| Increase the use of public transport/Encourage less driving | 69 | 60 | 71 | 57 | 51 | 69 | | | |
| Positive effect on economy and employment | 50 | 37 | 45 | 41 | 31 | 42 | 39 | 35 | 40 |
| Costless way to fight climate change | 66 | 30 | 39 | 56 | 27 | 36 | 59 | 29 | 38 |
| Distributional Impacts of Main Climate Policies | | | | | | | | | |
| <i>Believes the following groups would gain</i> | | | | | | | | | |
| Those living in rural areas | 28 | 25 | 50 | 23 | 21 | 43 | 17 | 16 | 36 |
| Low-income earners | 23 | 21 | 48 | 24 | 22 | 42 | 13 | 12 | 35 |
| The middle class | 21 | 22 | 49 | 21 | 21 | 40 | 14 | 15 | 35 |
| High-income earners | 35 | 39 | 51 | 27 | 33 | 41 | 33 | 40 | 49 |
| Self-Interest | | | | | | | | | |
| Believes own household would gain | 24 | 23 | 50 | 25 | 20 | 41 | 14 | 15 | 36 |
| Perceived Fairness and Support | | | | | | | | | |
| Support main climate policies | 58 | 57 | 78 | 36 | 37 | 59 | 44 | 43 | 65 |
| Main climate policies are fair | 48 | 51 | 72 | 33 | 35 | 55 | 38 | 39 | 59 |

Note: The questions on the effectiveness and fairness have answer options *Strongly disagree/Somewhat disagree/Neither agree nor disagree/Somewhat agree/Strongly agree*. We report the share of respondents who answer “Somewhat agree” or “Strongly agree.” Questions on the distributional impacts and self-interest have answer options *Lose a lot/Mostly lose/Neither win nor lose/Mostly win/Win a lot*. Depicted is the share of respondents who say “Mostly win” or “Win a lot.” “Support main climate policies” has answer options *Strongly oppose/Somewhat oppose/Neither support nor oppose/Somewhat support/Strongly support*. We show the share of respondents who “Somewhat support” or “Strongly support.” The shares represented are based on respondents in the control group only (who did not see any pedagogical videos). For the exact phrasing of each question, see Appendix A-5 of “Fighting Climate Change: International Attitudes Toward Climate Policies.”

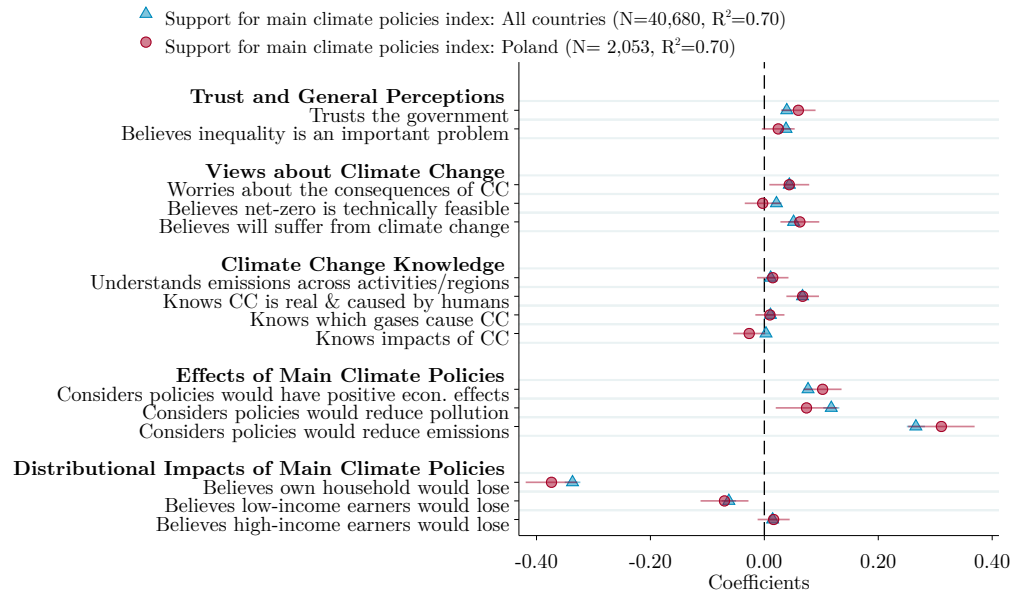
Figure 8: How different groups perceive the effectiveness and distributional effects of the three main climate policies



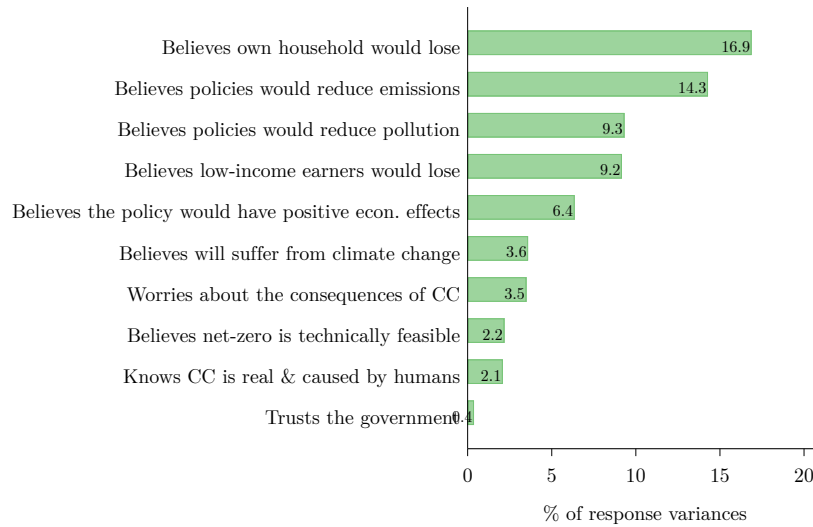
Note: The figure shows the coefficients from two regressions. In the left panel, the indices listed in the legend are regressed on indicator variables for socioeconomic characteristics, as well as treatment indicators (not shown). In the right panel, the same indices are regressed on energy usage indicators, as well as treatment indicators, and socioeconomic characteristics (not shown). Each index is constructed by averaging the z-scores of the answers to a given question (e.g., “believes policies would have economic effects”) across all three main policies and standardizing again. See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for detailed variable definitions. See the notes to Figure ?? for a list of the omitted categories.

Figure 9: Beliefs underlying support for the main climate policies

(A) Correlation between support for the three main policies and beliefs



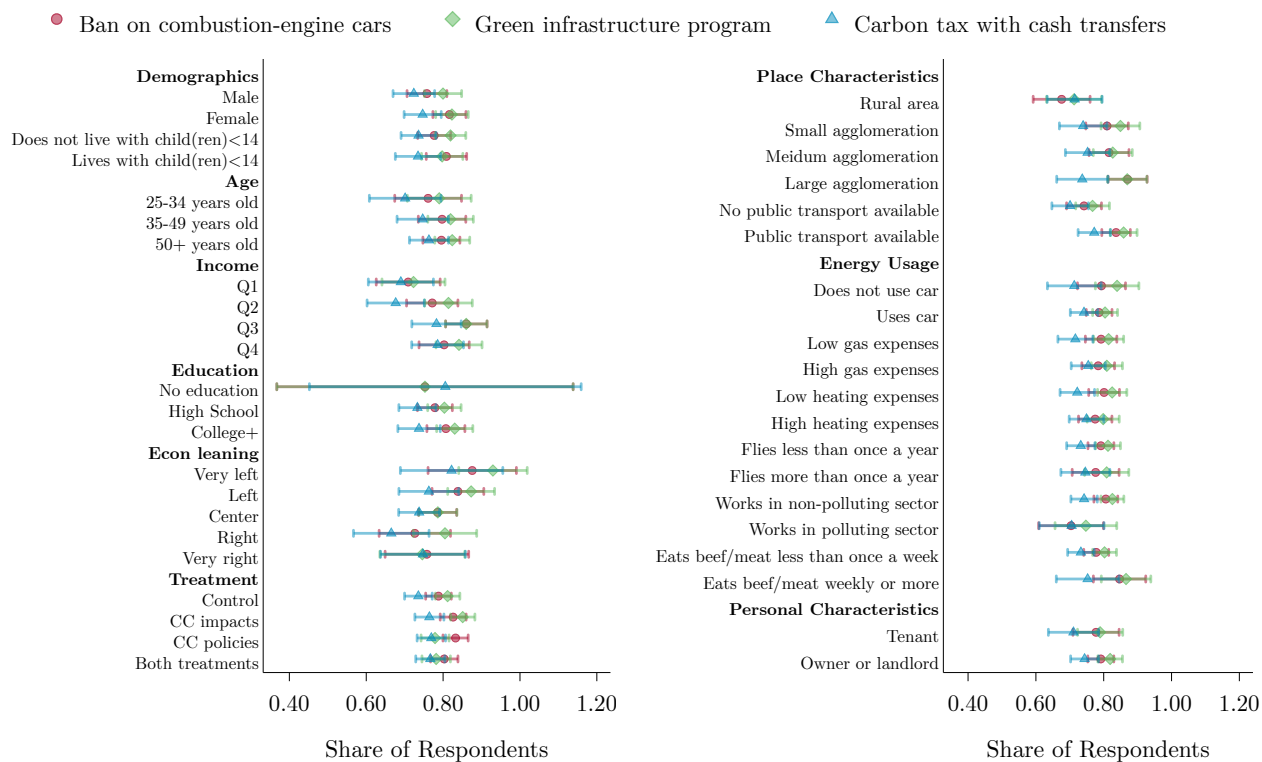
(B) Share of the variation in *Support for main policies* explained by different beliefs



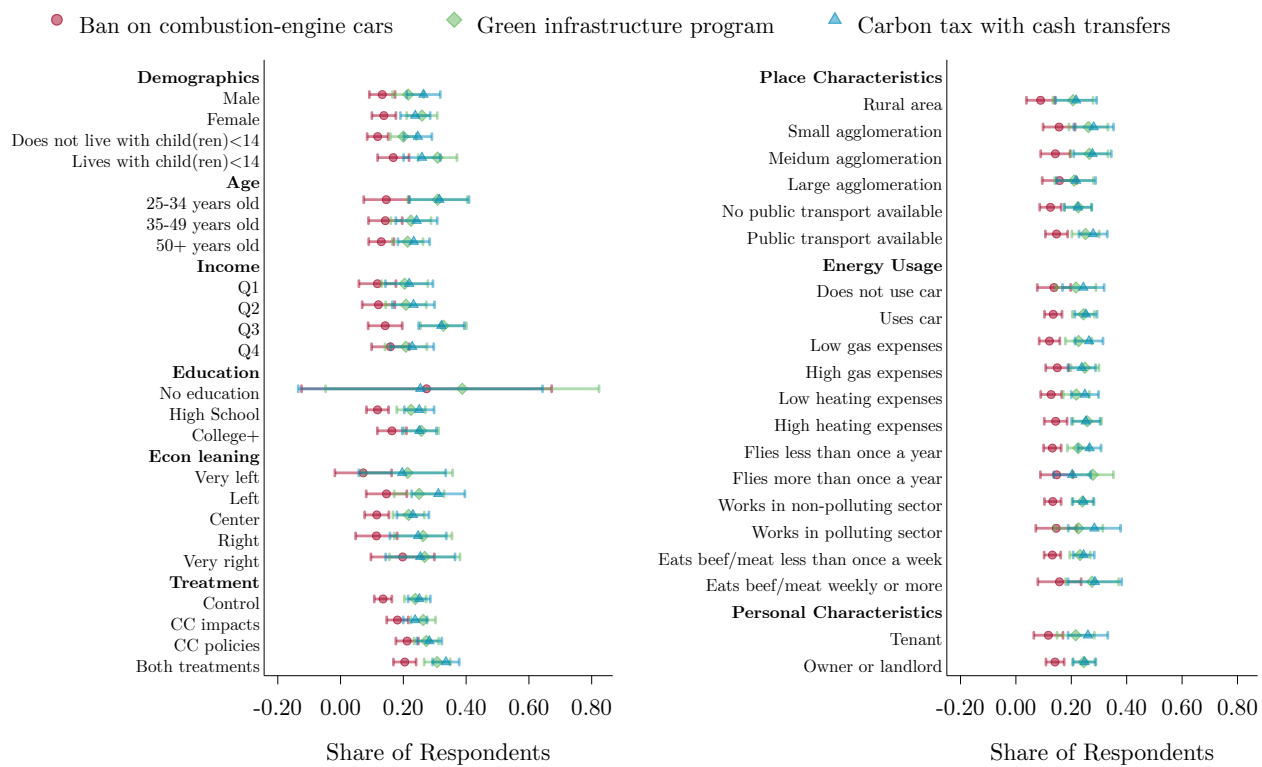
Note: Panel A shows the coefficients from a regression of support for each policy (indicator variable equal to 1 if the respondent supports the policy somewhat or strongly) on standardized variables measuring respondents’ beliefs and perceptions. Treatment indicators, and individual socioeconomic characteristics are included but not displayed. Panel B depicts the share of the variance in the *Support for main policies* index that is explained by each belief and perception. We use the LMG method (see Grömping 2007). See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for detailed variable definitions.

Figure 10: Share of respondents who hold key beliefs about the main climate policies by socioeconomic characteristics, energy usage, and treatment group

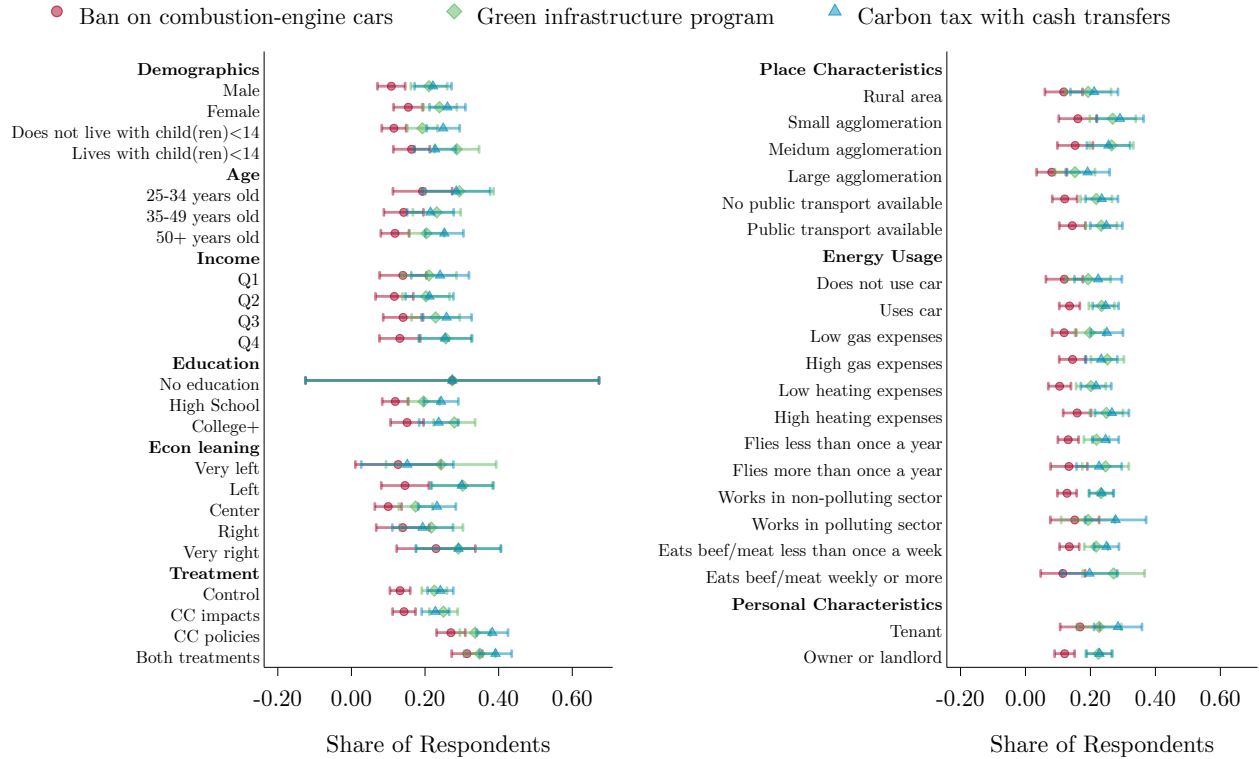
(A) Share who believes [policy] would reduce pollution



(B) Share who believes own household would lose from [policy]

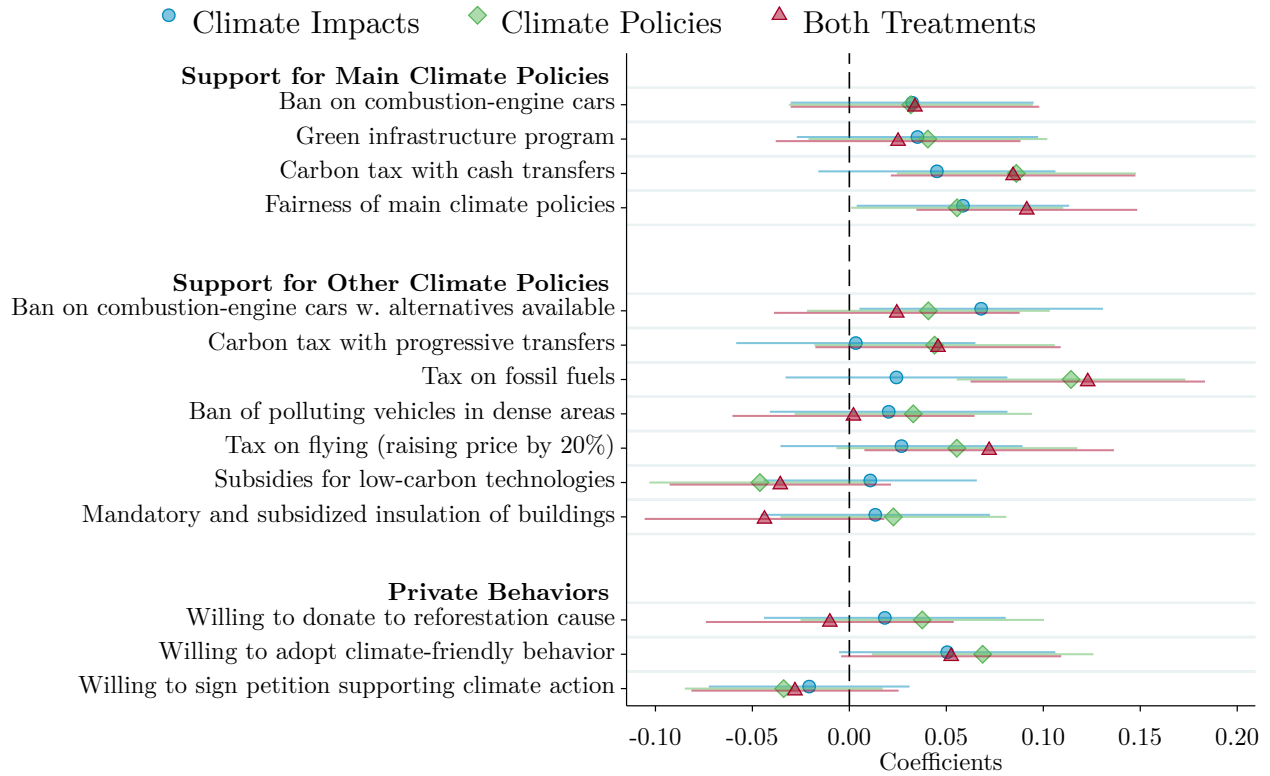


(C) Share who believes low-income earners would lose from [policy]



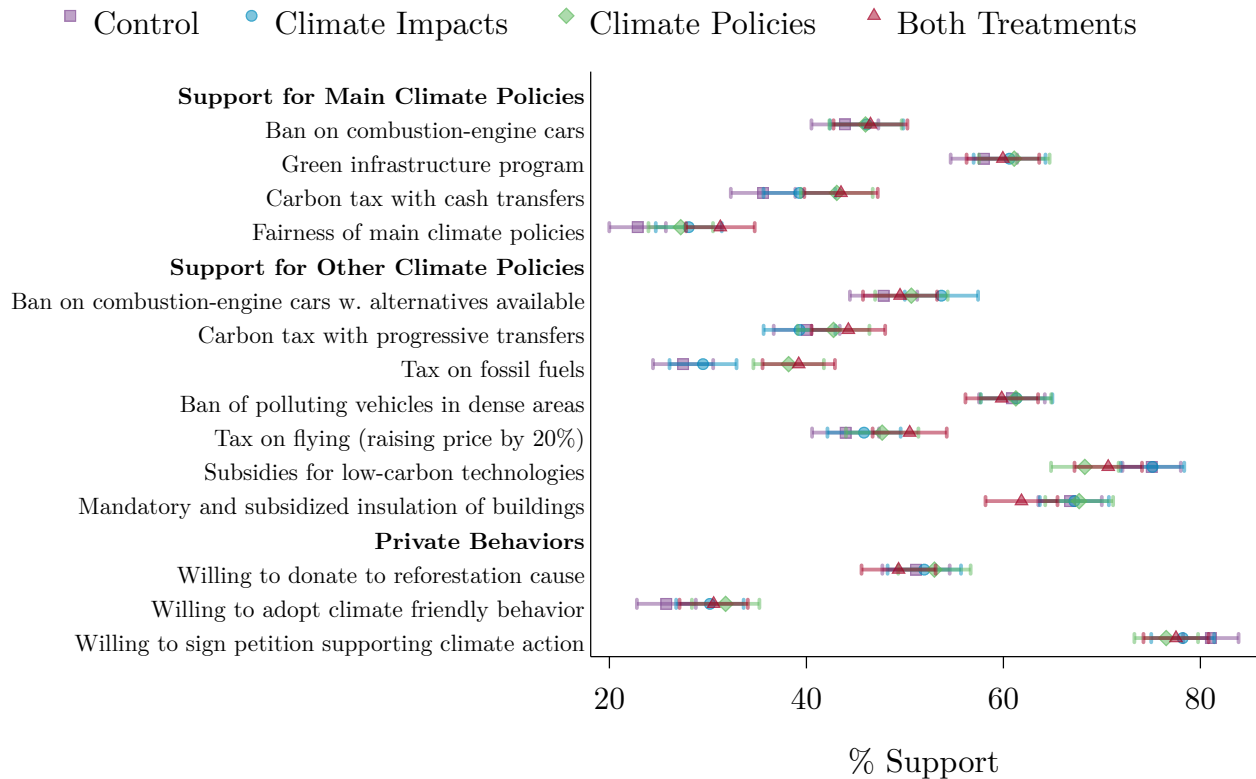
Note: The figure shows the share of respondents who agree (somewhat or strongly) with the statement. Means are shown by socioeconomic characteristics, treatment group, and energy usage. Except for the rows labeled “Treatment,” the means are taken over respondents in the control group only (who did not see any pedagogical videos). A 90% confidence interval is displayed. See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for detailed variable definitions.

Figure 11: Effects of the treatments on support for climate action



Note: The figure shows the coefficients from a regression of the indicator variables listed on the left, capturing support for various policies and willingness to change behaviors, on indicators for each treatment, controlling for socioeconomic characteristics (not shown). See Appendix A-1 of “Fighting Climate Change: International Attitudes Toward Climate Policies” for variable definitions.

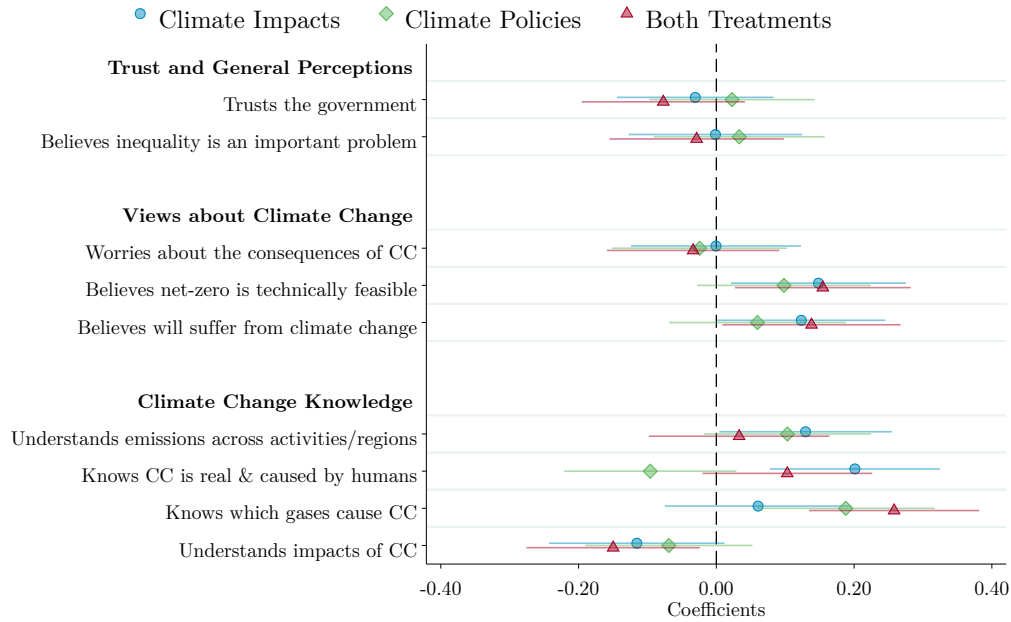
Figure 12: Climate attitudes by treatment group



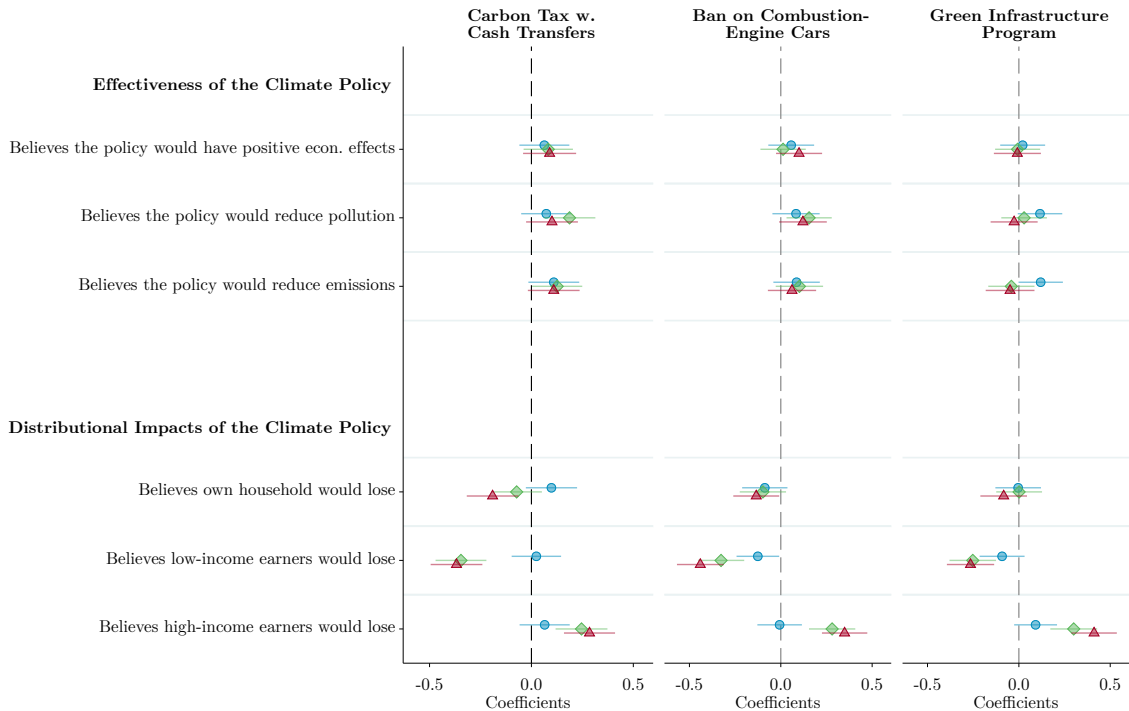
Note: This figure displays the mean of indicator variables by treatment group. Support for policy is an indicator variable equal to 1 if the respondent supports the policy somewhat or strongly. *Fairness of main climate policies* is an indicator variable equal 1 if on average the respondent somewhat or strongly agrees that each climate policy is fair. *Willing to donate to reforestation cause* equals 1 if the respondent is willing to donate more than 20% of the money prize. *Willing to adopt climate-friendly behavior* is an indicator variable equal 1 if on average the respondent is willing to adopt each climate-friendly behavior a lot or a great deal. *Willing to sign petition supporting climate action* equals 1 if the respondent is willing to sign a petition supporting climate action.

Figure 13: Effects of the treatments on beliefs

(A) Effects of the treatments on reasoning



(B) Effects of the treatments on beliefs about properties of the main climate policies



Note: The figure shows the coefficients from a regression of indices listed on the left, capturing respondents' beliefs and perceptions, on indicators for each treatment, controlling for socioeconomic characteristics (not shown). Panel A displays the coefficients from the regressions for reasoning, while Panel B displays the coefficients from regressions of beliefs about properties of each of the three policies. See Appendix A-1 of "Fighting Climate Change: International Attitudes Toward Climate Policies" for detailed variable definitions.