# A-5 Country appendices

## Unweighted result link

Here is a link to the appendix for unweighted results: https://socialeconomicslab.org/oecd\_climate\_change\_unweighted/

# Country Appendix links

Here is a link to the appendix for each country: https://socialeconomicslab.org/research/working-papers/fighting-climate-change-international-attitudes-toward-climate-policies/

# A-6 Questionnaire

# Survey links

Here are links to the questionnaires of each country:

- Australia: https://lse.eu.qualtrics.com/jfe/form/SV\_OHrxQpnzN85dR2K?Q\_Language= EN-GB
- Brazil: https://lse.eu.qualtrics.com/jfe/form/SV\_bjhZJbHP1U82OtE?Q\_Language=PT-BR
- Canada (English): https://lse.eu.qualtrics.com/jfe/form/SV\_9FveryHcJFsYfoq? Q\_Language=EN
- Canada (French): https://lse.eu.qualtrics.com/jfe/form/SV\_9FveryHcJFsYfoq? Q\_Language=FR-CA
- China: https://lse.eu.qualtrics.com/jfe/form/SV\_3ad13wqkW9bBvfw?Q\_Language= ZN
- Denmark: https://cebi.eu.qualtrics.com/jfe/form/SV\_38ApIc5Y6L1pjBY?Q\_Language=
- France: https://lse.eu.qualtrics.com/jfe/form/SV\_8CfmrUXhHRZJT14?Q\_Language=FR.
- Germany: https://lse.eu.qualtrics.com/jfe/form/SV\_0cWAJE2W8bdBPkG?Q\_Language=DE
- India (English): https://lse.eu.qualtrics.com/jfe/form/SV\_07HaTFCaGAklSrI? Q\_Language=EN

- India (Hindi): https://lse.eu.qualtrics.com/jfe/form/SV\_07HaTFCaGAklSrI?Q\_Language=HI
- Indonesia: https://lse.eu.qualtrics.com/jfe/form/SV\_3mV8QUArjqZ0htc?Q\_Language= ID
- Italy: https://lse.eu.qualtrics.com/jfe/form/SV\_bpiASf7NzB8u0wS?Q\_Language= IT
- Japan: https://lse.eu.qualtrics.com/jfe/form/SV\_6FE480tnfRWabRQ?Q\_Language= .JA
- Mexico: https://lse.eu.qualtrics.com/jfe/form/SV\_8csgJ7Uuymp7irY?Q\_Language= ES
- Poland: https://lse.eu.qualtrics.com/jfe/form/SV\_7Qc5KCPcIVv5qFE?Q\_Language= PI.
- South Africa (English): https://lse.eu.qualtrics.com/jfe/form/SV\_bvC37FRXIyGewKi? Q\_Language=EN-US
- South Africa (Zulu): https://lse.eu.qualtrics.com/jfe/form/SV\_bvC37FRXIyGewKi? Q\_Language=ZU
- South Korea: https://lse.eu.qualtrics.com/jfe/form/SV\_bwNjSPYjPojkuk6?Q\_Language=KO
- Spain: https://lse.eu.qualtrics.com/jfe/form/SV\_0d0TZD6KT4L2S0i?Q\_Language= ES-ES
- Turkey: https://lse.eu.qualtrics.com/jfe/form/SV\_3krmyMYslsDFBI2?Q\_Language= TR
- Ukraine (Ukrainian): https://lse.eu.qualtrics.com/jfe/form/SV\_3gdsY6iHV06IKNg? Q\_Language=UK
- Ukraine (Russian): https://lse.eu.qualtrics.com/jfe/form/SV\_3gdsY6iHV06IKNg? Q\_Language=RU
- United Kingdom: https://lse.eu.qualtrics.com/jfe/form/SV\_40Dm4ZTOR8mlzaS? Q\_Language=EN-GB
- United States: https://lse.eu.qualtrics.com/jfe/form/SV\_1ST7y8mzlEib9iu

Below is the benchmark questionnaire, with country-specific variations indicated in square brackets.

#### Consent

1. This is a survey conducted for academic research purposes by researchers from Harvard University and the OECD. It will take approximately 25 minutes to complete. The survey data is used for research purposes only, and the research is non-partisan. You will be compensated for this survey if you complete the survey and your responses pass our survey quality checks. These checks use statistical control methods to detect incoherent and rushed responses. It is very important for the validity of our research that you answer honestly and read the questions carefully before answering.

The survey collects personal data, including socioeconomic characteristics and political views. All of the answers you provide will remain anonymous and be treated with absolute confidentiality. The personal data we collect will be transferred and stored on secure servers. Only researchers working on the project will have access to the anonymized data. Your participation in this survey is completely voluntary. You are entitled to choose not to take part. If at first you agree to take part, you can later change your mind. Your decision will not be held against you in any way. Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive. You can ask any questions before you decide whether to participate.

If you have questions, concerns, or complaints, or think the research has offended you, you can contact the research team at social economics.research2020@gmail.com or call the Harvard University Area Institutional Review Board ("IRB") at +1 (617) 496-2847. The OECD is committed to protecting the personal data it processes, in accordance with its Personal Data Protection Rules (https://www.oecd.org/general/data-protection.htm). If you have further queries or complaints related to the processing of your personal data, please contact the Data Protection Officer (DPO@oecd.org). If you need further assistance in resolving claims related to personal data protection you can contact the Data Protection Commissioner (DPC@oecd.org).

Do you agree to participate in the survey? Yes: No

# Background questions

- 2. What is your gender? *Male; Female; Other*
- 3. How old are you?

  Below 18; 18 to 24; 25 to 34; 35 to 49; 50 to 64; 65 and above
- 4. What is your zipcode?
- 5. What type of agglomeration do you live in?

  A rural area; A small town (5,000 20,000 inhabitants); A large town (20,000 50,000

inhabitants); A small city or its suburbs (50,000 - 250,000 inhabitants); A large city or its suburbs (250,000 - 3,000,000 inhabitants); A very large city or its suburbs (more than 3 million inhabitants)

- 6. What is the nationality of your parents? (Multiple answers allowed) [For the U.S. and South Africa, we asked the ethnicity instead; and for India, the religion.] [Country]; [Continent except Country]; Other; Prefer not to say
- 7. Do you live with your partner (if you have one)? Yes; No or I don't have a partner
- 8. What is your marital status?

  Single; Married; Divorced or legally separated; Widowed
- 9. How many people are in your household? The household includes: you, the members of your family who live with you (including children), and your dependants. This excludes flatmates.

1; 2; 3; 4; 5 or more

- 10. How many children below 14 live with you? 0; 1; 2; 3; 4 or more
- 11. What is the highest level of education you have completed?

  No schooling completed; Primary school; Lower secondary school; Vocational degree;

  High school; College degree; Master's degree or above
- 12. What is your employment status?

  Full-time employed; Part-time employed; Self-employed; Student; Retired; Unemployed (searching for a job); Inactive (not searching for a job)
- 13. (If "Full-time employed", "Part-time employed", or "Self-employed" to 10) If you work in any of the following industries, please select one describing your industry best.

  Oil, gas or coal; Other energy industries; Cement production; Construction; Automobile manufacturing; Iron and steel manufacturing; Chemical manufacturing; Plastics production; Pulp and paper production; Farming (crop or livestock); Air transport (e.g. airlines); No, none of the above
- 14. (If "Retired", "Unemployed (searching for a job)", "Inactive (not searching for a job)" to 10) If in your last job you worked in any of the following industries, please select one describing your industry best Oil, gas or coal; Other energy industries; Cement production; Construction; Automobile manufacturing; Iron and steel manufacturing; Chemical manufacturing; Plastics production; Pulp and paper production; Farming (crop or livestock); Air transport (e.g. airlines); No, none of the above

- 15. (If "Full-time employed", "Part-time employed", or "Self-employed" to 10) What is the main activity of the company or organization where you work?

  Agriculture, forestry, fishing, hunting; Mining, quarrying, oil, gas, extraction; Utilities; Construction; Manufacturing; Wholesale trade; Retail trade; Transportation and warehousing; Information technology (IT); Finance and insurance; Real estate and rental and leasing; Professional, scientific and technical; Management of companies and enterprises; Administrative and support activities; Waste management and remediation; Educational services; Healthcare and social assistance; Arts, entertainment and recreation; Accommodation and food services; Other services; Public administration; Homemaker; None of the above / Other
- to 10) What was the main activity of the company or organization at which you last worked?

  Agriculture, forestry, fishing, hunting; Mining, quarrying, oil, gas, extraction; Utilities; Construction; Manufacturing; Wholesale trade; Retail trade; Transportation and warehousing; Information technology (IT); Finance and insurance; Real estate and rental and leasing; Professional, scientific and technical; Management of companies and enterprises; Administrative and support activities; Waste management and remediation; Educational services; Healthcare and social assistance; Arts, entertainment and recreation; Accommodation and food services; Other services; Public administration; Homemaker; None of the above / Other

16. (If "Retired", "Unemployed (searching for a job)", "Inactive (not searching for a job)"

- 17. What was the annual income of your household in 2019 (before withholding tax)? [Depending on the country, we ask this question in monthly or yearly terms. Except in the U.S., we adjust the quartile thresholds by multiplying them by the number of consumption units in the households.] [quartiles thresholds are given for the U.S. ] Less than [\$35,000]; between [\$35,000] [\$120,000]; More than [\$120,000]
- 18. Have you or a member of your household been laid off or had to take a cut in your salary or wages due to the COVID-19 pandemic? Yes; No
- 19. Are you a homeowner or a tenant? (Multiple answers are possible) Tenant; Owner; Landlord renting out property
- 20. What is the estimated value of your assets, or the assets of your household if you are married (in [currency])? Include here all your possessions (home, car, savings, etc.) net of debt. For example, if you own a house worth [\$300,000] and you have [\$100,000] left to repay on your mortgage, your assets are [\$200,000]. I estimate my assets net of debt to be:
  - [Quintiles thresholds are given for the U.S.] Less than [\$0]; Between [\$0] [\$4,000]; Between [\$120,000] [\$380,000]; More than [\$380,000]

### Political views

- 21. To what extent are you interested in politics?

  Not at all; A little; Moderately; A lot; A great deal
- 22. Are you a member of an environmental organization? Yes; No
- 23. Do you have any relatives who are environmentalists? Yes; No
- 24. (In China, the next three questions were not asked, and the other questions from this block were asked at the end of the survey.) Did you vote in the [last] election? Yes; No: I don't have the right to vote in [Country]; Prefer not to say
- 25. (If "Yes" to 24) Which candidate did you vote for in the [last] election? [Main candidates or parties]; Other; Prefer not to say
- 26. (If not "Yes" to 24) Even if you did NOT vote in the [last] election, please indicate the candidate that you were most likely to have voted for or who represents your views more closely.

  [Main candidates or parties]; Other; Prefer not to say
- 27. On economic policy matters, where do you see yourself on a scale from 1 to 5, where 1 is Left and 5 is Right? [in the U.S., Denmark and France, the formulation was different: "On economic policy matters, where do you see yourself on the liberal/conservative spectrum?" and the answers were Very liberal; Liberal; Moderate; Conservative; Very conservative; Prefer not to say]

  1; 2; 3; 4; 5
- 28. [In the U.S. only] What do you consider to be your political affiliation, as of today? Republican; Democrat; Independent; Other; Non-Affiliated

# Household composition and energy characteristics

(In Brazil, Mexico, India, and Indonesia, the next two questions on heating were not asked.)

- 29. What is the main way you heat your home?

  Electricity; Gas; Heating oil; Coal; Wood, solar, geothermal, or heat pump; District heating; Don't know, or prefer not to say
- 30. In a typical month [or year, depending on countries], how much do you spend on heating for your accommodation?

  [Numbers are given for the U.S. ] I don't know; Less than [\$20]; [\$20]-[\$75]; [\$75]-[\$125]; [\$125]-[\$200]; [\$200]-[\$250]; [\$250]-[\$300]; More than [\$300]

- 31. Good insulation can keep a building warm in the winter and cool in the summer. How do you rate the insulation of your accommodation?

  Very poor; Poor; Fair; Good; Excellent
- 32. In a typical month, how much do you spend on gas for driving? [Numbers are given for the U.S. ] Less than [\$5]; [\$5]-[\$25]; [\$25]-[\$75]; [\$75]-[\$125]; [\$125]-[\$175]; [\$175]-[\$225]; More than [\$225]
- 33. How many round-trip flights did you take between 2017 and 2019? 0; 1; 2; 3 or 4; 5 to 7; 8 to 14; 15 or more
- 34. How often do you eat [beef / India: meat]?

  Never; Less than once a week; One to four times per week; Almost or at least daily
- 35. Which mode of transport did you mainly use for each of the following trips in 2019?
  - Commute to work or place of study
  - Grocery shopping
  - Recreational and leisure activities (excluding holiday travel)

Car or Motorbike; Public Transport; Walking or Cycling; Other; Not Applicable

36. How do you rate the availability (ease of access and frequency) of public transportation where you live?

Very poor; Poor; Fair; Good; Excellent

# Open-ended question

37. When thinking about climate change, what are your main considerations? What should [country] government do regarding climate change? Please write as much as you would like, your response will be very useful.

#### Video treatments

Randomized groups of respondents see one of two videos, both videos, or neither.

#### Climate impacts video

Recent academic studies have assessed the effects of climate change in [country]. We will now show you a 3 minute video (with sound) that summarizes the results of these studies. Please pay attention to the information provided as you will be asked questions about it later. Do not skip forward or close the page while the video is running. Please proceed to the next page when you are ready.

[Here are the links to the video of each country:]

- Australia: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_6zC4wlmsEXrDnYq
- Brazil: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_ 571ND31Sz5SI.4oK
- Canada (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_9zxyasw9TTVFqx8
- Canada (French): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_1QSWUKIYiJDNxfE
- China: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_9vHesDcevMYMffU
- Denmark: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_dgnXQoN84vq2YXs
- France: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_9YacInO3B7TVcGy
- Germany: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_3NNS6u7MbEm738y
- India (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_b91U7goEX1i0FvM
- India (Hindi): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bvLcTKdd7WG8SZ8
- Indonesia: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_9QQCwEicwdwYp94
- Italy: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_ 1GpaU9AOpOuA246
- Japan: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_e3BFKqjnqsS0waW
- Mexico: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_cSdiidvle1QaekS
- Poland: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_6SahJCEqAUd5bdc
- South Africa (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_8iAWsyQlvy07iJg

- South Africa (Zulu): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_4NHM2UHj6XttP70
- South Korea: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_2071FHigxMNs2rk
- Spain: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_4NsVOyDmpposo3I
- Turkey: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_8AKIwJiwMxyQnyu
- Ukraine (Ukrainian): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_1Bz6VaDS6IzAMGq
- Ukraine (Russian): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bemd3trrg7wgFym
- United Kingdom: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bj8yT5eiDpZCR82
- United States: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_cT8837yWYLScqLs

[Below is the script used for the U.S.]

Over the past decades, humans have been burning more and more fossil fuels like coal, gas or oil. Burning fossil fuels releases  $\mathrm{CO}_2$  into the atmosphere. Today, the concentration of  $\mathrm{CO}_2$  in the atmosphere is higher than at any point in time over the last 800,000 years. And it's the concentration of greenhouse gases like  $\mathrm{CO}_2$  that drives global temperature. Climate scientists agree: the build-up of greenhouse gases released by human activity in the atmosphere causes climate change. A rapid transition away from fossil fuels is possible and could contain global warming below  $+[2^{\circ}\mathrm{C}\ /\ 3.6^{\circ}\mathrm{F}]$ , meaning  $3.6^{\circ}\mathrm{F}$ . But if greenhouse gas emissions continue on their current trend, the average global warming will be  $+[4^{\circ}\mathrm{C}\ /\ 8^{\circ}\mathrm{F}]$  in 2100 and  $+[7^{\circ}\mathrm{C}\ /\ 13^{\circ}\mathrm{F}]$  in 2200. This may seem far away, but climate change is already affecting us right now in the places where we live.

- Because of climate change, in the U.S. hurricanes have become increasingly intense and cause much more harm and damages. Hurricane Katrina caused more than 1,800 deaths and more than 100 billion dollars in damages.
- The amount of air pollution generated by burning fossil fuels is already responsible for 200,000 deaths in the U.S. each year.
- Heatwaves are becoming longer, more frequent, and more severe. In the absence of ambitious action against climate change, the U.S. will experience 70 days of extreme heat per year (that is six times more than in the past) and up to 135 days a year in a State like Texas.

- In the South and in the Midwest, agricultural yields will decrease because of the heat.
- With the mix of more hurricanes, rising sea levels, more heatwaves, and lower agricultural output, the average income in Southern states will be 10 to 20% lower than it could be.
- In the North-East, the risk of heavy rain has already increased by 55%. More severe storms and rising sea levels will lead to more flooding.
- In the West, hotter and drier conditions are causing more wildfires. Since the mid 80s, the area burned by wildfires across the Western U.S. is estimated to have been twice what it would have been without climate change. This was even before accounting for the California wildfires last summer, which were by far the largest on record.

To tackle climate change, we need to bring greenhouse gas emissions close to zero. This is possible, but it requires a deep transformation in the sectors most responsible for emissions: energy, transport, and industry.

- 38. Were you able to watch and listen to the video until the end?

  Yes; No, there was a technical problem; No, I skipped part of the video
- 39. From what was said in the video, if greenhouse gas emissions continue on their current trend, what will be the rise in global average temperature in 2100?

  [1°C / 2°F]; [2°C / 3.6°F]; [4°C / 8°F]; [7°C / 15°F]; Don't know
- 40. [This question depends on the country, U.S. one is given] From what was said in the video, in the absence of ambitious action against climate change, how frequent will extreme temperatures (that is, temperature above 95°F) occur on average across the U.S. by the end of the century?
  - 70 days per year; 80 days per year; 90 days per year; 100 days per year; Don't know

#### Climate policy video

We will now show you a 5 minute video (with sound) that summarizes the features of some policies proposed to fight climate change. Please pay attention to the information provided as you will be asked questions about it later. Do not skip forward or close the page while the video is running. Please proceed to the next page when you are ready.

- Australia: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?
   F=F\_3gagRLUpgyAicVE
- Brazil: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_eCZzzoblKYpWKhO
- Canada (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File. php?F=F\_9Lekk0zTPurlzkG

- Canada (French): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_9twKmQCtMuJpfp4
- China: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_ 1ZhXvFBoUtvq7qK
- Denmark: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_390XHJ3gT6p4U74
- France: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_6F2lrvw2eo1eQNU
- Germany: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_9SvqNOCSY8ywnHw
- India (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_2mj1MdvMpAYJAuG
- India (Hindi): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_00696ZTnBDTFQ10
- Indonesia: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_1RqbYYeT2cOnOPc
- Italy: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_6mMBZqNPLgvUKZo
- Japan: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_OrCWm2QnbEfaR1k
- Mexico: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_3UbhIz7hb99f0wu
- $\bullet \ \, Poland: \ \, https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F_etk0tRoDmoSXkSq$
- South Africa (English): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_9FD0xYLGIwdrYh0
- South Africa (Zulu): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_1zij8ULej3rYsXs
- South Korea: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php? F=F\_402BSbDDYVUUhb8
- Spain: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_ 9ZCXWK6BphbFQWy

- Turkey: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F= F\_9RF3ckVwWR9MH1Y
- Ukraine (Ukrainian): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bDbSZHrj0tU9b7w
- Ukraine (Russian): https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_3wr99GUKuUVgK3k
- United Kingdom: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bg5w9RRYbGtMrwa
- United States: https://lse.eu.qualtrics.com/WRQualtricsControlPanel/File.php?F=F\_bj5mFN15bJnlUbk

Below is the script used for the U.S.]

To fight climate change and avoid an ever-warming climate, we need an array of policies. Climate policies are needed to transform the way we produce energy, to make buildings greener, to put greener cars on the roads and reduce our fuel consumption. But these policies also need to protect people's jobs and incomes. Let's have a closer look on three possible climate policies.

Let's start with a policy that forces car producers to produce greener cars – a ban on combustion-engine cars. With a ban on combustion-engine cars, car producers are first required by law to produce cars that emit less CO<sub>2</sub> per [kilometre/mile]. The emission limit is lowered every year, so that only electric or hydrogen vehicles can be sold after 2030. Note that electric vehicles currently cannot travel as far and can be more expensive than cars that run on petrol. Together with a plan to produce electricity from clean sources, a ban on combustion-engine cars would accomplish the transition needed in the car industry.

Now, let's turn to a policy that combines a tax on carbon emissions to reduce emissions and cash transfers to protect people's purchasing power. With a carbon tax, all products that emit greenhouse gases would be taxed. For example, the price of gasoline would increase by [40 cents per gallon]. With a carbon tax, companies and people pay for the greenhouse gases they emit. This pushes them to reduce their emissions. To compensate people for the price increases, the revenues of the carbon tax would be redistributed to all households, regardless of their income. Each adult would thus receive [600 dollar] per year. On average, poorer people own smaller cars, live in smaller houses and fly less, so they use less fossil fuels than average. [The previous sentence is adapted in middle-income countries.] As they would receive the same cash transfer as everyone else, poorer people will generally gain from a carbon tax with cash transfers. Conversely, rich people will tend to lose. Does this policy work? Yes! The Canadian province of British Columbia has a carbon tax with cash transfers since 2008. Research has shown that this policy has decreased carbon emissions, increased employment, and made a majority of people richer. The last policy is a large program of public investment in green infrastructure, which would be financed by additional debt taken

up by the government. A green infrastructure program would bring about the transition in energy infrastructure needed to halt climate change but it could come at the expense of other possible projects funded by the government. In [the U.S.], such a programme could create [4 million] jobs in green sectors, such as public transportation, renewable power plants, buildings' insulation, or sustainable agriculture, but [2 million] of people could lose their job in the fossil fuel industry. In general, all climate policies have the potential to transform the economy into a greener, safer, less polluted world. This green transformation has some downsides: people will have to change their habits, and some people will even have to change job. For example, there will be less demand for polluting sectors such as coal mining. But re-training options would be offered to workers in these sectors to ensure that they could find a new job elsewhere. And the green transition also comes with benefits: a safer world for future generations of course, but also less pollution. And climate policies can be designed to protect poor and middle-class households, as they can have more income with the carbon tax with cash transfers, and more jobs with a green infrastructure program. We have focused on three important policies, but many others would be useful to fight climate change, including funding research into green technologies, subsidising the insulation of buildings, or stopping deforestation. To stop climate change, we probably need all of them together.

- 41. Were you able to watch and listen to the video until the end?

  Yes; No, there was a technical problem; No, I skipped part of the video
- 42. The video presented three climate policies. What was the first policy about?

  A ban on combustion-engine cars; A ban on short-haul flights; A ban on coal power plants; A ban on single-use plastic bags; Don't know
- 43. The green infrastructure program described in the video would be financed by:

  Additional government debt; Taxes on the wealthiest; Increase in the VAT (value-added tax); Reduction in social spending; Don't know

# Climate knowledge

- 44. How often do you think or talk with people about climate change? Almost never; Several times a year; Several times a month
- 45. In your opinion, is climate change real? *Yes; No*
- 46. (If "Yes" to 60) What part of climate change do you think is due to human activity? None; A little; Some; A lot; Most
- 47. Do you agree or disagree with the following statement: "Climate change is an important problem."
  - Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 48. How knowledgeable do you consider yourself about climate change? Not at all; A little; Moderately; A lot; A great deal
- 49. Greenhouse gases are gases that trap heat in the atmosphere and make the Earth warmer, causing climate change. In particular, the burning of fossil fuels and agricultural production emit greenhouse gases. Which of the following elements contribute to climate change? (Multiple answers are possible)

  CO: Hudrogen: Methone: Particulate matter

CO<sub>2</sub>; Hydrogen; Methane; Particulate matter

50. Do you think that cutting global greenhouse gas emissions by half would be sufficient to eventually stop temperatures from rising?

Yes; No

For the next three questions we would like you to rank the items according to the greenhouse gas emissions they emit, to the best of your knowledge (where 1 is the item that emits the most and 3 the item that emits the least). The greenhouse gas emissions of a product are those emitted at all steps involved in its production and distribution.

51. If a [family of 4 or couple or person, depending on the country] travels [500 km from New York City to Toronto (for the U.S.)], with which mode of transportation do they emit the most greenhouse gases? Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).

Car (running on diesel or gasoline); [Coach or Train, depending on the country]; Plane

52. Which dish emits the most greenhouse gases? We consider that each dish weighs half a pound. Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).

A [beef] steak; One serving of [pasta]; Chicken wings

53. Which source of electric energy emits the most greenhouse gases to provide power for a house? Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).

Gas-fired power plant; Nuclear power plant; Coal-fired power station

- 54. Which region contributes most to global greenhouse gas emissions? Please rank the regions from 1 (most) to 4 (least) and note that multiple regions may have the same rank.
  - The U.S.
  - The European Union
  - China
  - India

1; 2; 3; 4

- 55. Consider now per capita emissions: in which region does the consumption of an average person contribute most to greenhouse gas emissions? Please rank the regions from 1 (most) to [4 / 5] (least).
  - The U.S.
  - The European Union
  - China
  - India
  - [Country, if not above or not in the EU]

1; 2; 3; 4; [5]

- 56. If nothing is done to limit climate change, how likely do you think it is that climate change will lead to the following events?
  - Severe droughts and heatwaves
  - More frequent volcanic eruptions
  - Rising sea levels
  - Lower agricultural production
  - Drop in standards of living
  - Larger migration flows
  - More armed conflicts
  - Extinction of humankind

Very unlikely; Somewhat unlikely; Somewhat likely; Very likely

#### Attitudes and risks

- 57. To what extent are the following groups responsible for climate change in [country]?
  - Each of us
  - The high income earners
  - [country] government
  - Companies
  - Previous generations

Not at all; A little; Moderately; A lot; A great deal

58. To what extent do you think that it is technically feasible to stop greenhouse gas emissions by the end of the century while [maintaining / sustaining] satisfactory standards of living in [country]?

Not at all; A little; Moderately; A lot; A great deal

- 59. To what extent do you think climate change already affects or will affect your personal life negatively?
  - Not at all; A little; Moderately; A lot; A great deal
- 60. How likely is it that human kind halts climate change by the end of the century? Very unlikely; Somewhat unlikely; Somewhat likely; Very likely
- 61. If we decide to halt climate change through ambitious policies, what would be the effects on [country] economy and employment?

  Very negative effects; Somewhat negative effects; No noticeable effects; Somewhat positive effects; Very positive effects
- 62. If we decide to halt climate change through ambitious policies, to what extent do you think it would negatively affect your lifestyle?

  Not at all; A little; Moderately; A lot; A great deal
- 63. Here are possible behaviors that experts say would help reduce greenhouse gas emissions. To what extent would you be willing to adopt the following behaviors?
  - Limit flying
  - Limit driving
  - Have an electric vehicle
  - Limit [beef / India: meat] consumption
  - Limit heating or cooling your home

Not at all; A little; Moderately; A lot; A great deal

- 64. 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.)?
  - Ambitious climate policies
  - Having enough financial support
  - People around you also changing their behavior
  - The most well-off also changing their behavior

Not at all; A little; Moderately; A lot; A great deal

# Policy 1: Ban on the sale of combustion-engine cars

To fight climate change, car producers can be required by law to produce cars that emit less CO2 per [kilometer / mile] of the cars they sell. The emission limit is lowered every year so that only electric or hydrogen vehicles can be sold after 2030. This policy is called a ban on combustion-engine cars. We will now ask you a few questions regarding this specific policy.

- 65. Do you agree or disagree with the following statements? A ban on combustion engine cars would...
  - reduce CO<sub>2</sub> emissions from cars
  - reduce air pollution
  - have a

negative/positive(randomized)

effect on [country] economy and employment

- have a large effect on [country] economy and employment
- be a

costly/costless(randomized)

way to fight climate change

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 66. In your view, would the following groups win or lose if a ban on combustion-engine cars was implemented in [country]?
  - Low-income earners
  - The middle class
  - High-income earners
  - Those living in rural areas

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

67. Do you think that your household would win or lose financially from a ban on combustionengine cars?

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

68. Do you agree or disagree with the following statement: "A ban on combustion-engine cars is fair"?

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 69. Do you support or oppose a ban on combustion-engine cars?

  Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

  Strongly support
- 70. Do you support or oppose a ban on combustion-engine cars where alternatives such as public transports are made available to people?

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

### Policy 2: Green infrastructure program

A green infrastructure program is a large public investment program, which would be financed by additional public debt, to accomplish the transition needed to cut greenhouse gas emissions. Investments would concern renewable power plants, public transport, thermal renovation of buildings, and sustainable agriculture. We will now ask you a few questions regarding this specific policy.

- 71. Do you agree or disagree with the following statements? A green infrastructure program would...
  - make electricity production greener
  - increase the use of public transport
  - reduce air pollution
  - have a negative effect on [country] economy and employment
  - have a large effect on [country] economy and employment
  - be a costly way to fight climate change

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 72. In your view, would the following groups win or lose with a green infrastructure program?
  - Low-income earners
  - The middle class
  - High-income earners
  - Those living in rural areas

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

- 73. Do you think that your household would win or lose financially from a green infrastructure program?
  - Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot
- 74. Do you agree or disagree with the following statement: "A green infrastructure program is fair"?
  - Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 75. Do you support or oppose a green infrastructure program?

  Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

  Strongly support

76. Until now, we have considered that a green infrastructure program would be financed by public debt, but other sources of funding are possible.

What sources of funding do you find appropriate for public investments in green infrastructure? (Multiple answers are possible)

Additional public debt; Increase in the [sales tax / VAT (value-added tax)]; Increase in taxes on the wealthiest; Reduction in social spending; Reduction in military spending

### Policy 3: Carbon tax with cash transfers

To fight climate change, [country] government can make greenhouse gas emissions costly, to make people and firms change their equipment and reduce their emissions. The government could do this through a policy called a carbon tax with cash transfers. Under such a policy, the government would tax all products that emit greenhouse gas. For example, the price of gasoline would increase by [40 cents per gallon]. To compensate households for the price increases, the revenues from the carbon tax would be redistributed to all households, regardless of their income. Each adult would thus receive [600 dollar] per year.<sup>33</sup> We will now ask you a few questions regarding this specific policy.

- 77. Do you agree or disagree with the following statements? A carbon tax with cash transfers would...
  - encourage people to drive less
  - encourage people and companies to insulate buildings
  - reduce the use of fossil fuels and greenhouse gas emissions
  - reduce air pollution
  - have a negative effect on [country] economy and employment
  - have a large effect on [country] economy and employment
  - be a costly way to fight climate change

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 78. In your view, would the following groups win or lose under a carbon tax with cash transfers?
  - Low-income earners
  - The middle class
  - High-income earners
  - Those living in rural areas

 $<sup>^{33}</sup>$ The tax considered is (implicitly) set at \$45 per ton of  $CO_2$  (see Appendix A-11.1.1 for details of the computation.

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

79. Do you think that your household would win or lose financially under a carbon tax with cash transfers?

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

80. Do you agree or disagree with the following statement: "A carbon tax with cash transfers is fair"?

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 81. Do you support or oppose a carbon tax with cash transfers?

  Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

  Strongly support
- 82. Now, we consider a variant of the policy where the cash transfers are higher for low-income people compared to high-income people. Do you agree or disagree that such a policy would be fair?

  Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree;

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

83. Do you support or oppose a carbon tax with cash transfers with higher transfers for low-income people compared to high-income people?

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

# Preferences on climate policies

Strongly support

84. [Attention check question] To show that you are attentive, please select "a little" in the following list:

Not at all; A little; Moderately; A lot; A great deal

- 85. Do you support or oppose the following climate policies?
  - A tax on flying (that increases ticket prices by 20%)
  - A national tax on fossil fuels (increasing gasoline prices by [40 cents per gallon])
  - A ban of polluting vehicles in dense areas, like city centers
  - Subsidies for low-carbon technologies (renewable energy, capture and storage of carbon...)
  - A contribution to a global climate fund to finance clean energy in low-income countries

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

- 86. Governments can use the revenues from carbon taxes in different ways. Would you support or oppose introducing a carbon tax that would raise gasoline prices by [40 cents per gallon], if the government used this revenue to finance...
  - Cash transfers to households with no alternative to using fossil fuels
  - Cash transfers to the poorest households
  - Equal cash transfers to all households
  - A reduction in personal income taxes
  - A reduction in corporate income taxes
  - Tax rebates for the most affected firms
  - Funding environmental infrastructure projects (public transport, cycling ways, etc.)
  - Subsidizing low-carbon technologies, including renewable energy
  - A reduction in the public deficit

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

## Willingness to pay and real stake questions

87. To fight global warming, [country] government could implement a policy package to reduce emissions, for example by investing in clean technologies (renewable energy, electric vehicles, public transport, more efficient insulation, etc.). The funding for these investments could be collected annually through an additional individual contribution for the foreseeable future. Assume that everyone in [country] as well as citizens of other countries would be required to contribute according to their means. Are you willing to pay ([\$10 / \$30 / \$50 / \$100 / \$300 /\$500 / \$1,000 ]) annually through an additional individual contribution to limit global warming to safe levels (less than 2 degrees Celsius)?

Yes; No

88. By taking this survey, you are automatically entered into a lottery to win [\$100]. In a few days you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part. You can also donate a part of this additional compensation (should you be selected in the lottery) to a reforestation project through the charity The Gold Standard. This charity has already proven effective to reduce 151 million tons of CO<sub>2</sub> to fight climate change and has been carefully selected by our team. The Gold Standard is highly transparent and ensures that its projects feature the highest levels of environmental integrity and contribute to sustainable development. Should you win the lottery, please enter your donation amount using the slider below: Slider going from 0 to [100]

## International burden-sharing

- 89. At which level(s) do you think public policies to tackle climate change need to be put in place? (Multiple answers are possible)
  - Global; [Federal / European / ...]; [State / National]; Local
- 90. Do you agree or disagree with the following statement: "[country] should take measures to fight climate change."
  - Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 91. How should [country] climate policies depend on what other countries do?
  - If other countries do more, [country] should do...
  - If other countries do less, [country] should do...

Much less; Less; About the same; More; Much more

- 92. [In all countries but the U.S., Denmark and France] All countries have signed the Paris agreement that aims to contain global warming "well below +2 °C'. To limit global warming to this level, there is a maximum amount of greenhouse gases we can emit globally, called the carbon budget. Each country could aim to emit less than a share of the carbon budget. To respect the global carbon budget, countries that emit more than their national share would pay a fee to countries that emit less than their share. Do you support such a policy?
  - Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support
- 93. [In all countries but the U.S., Denmark and France] Suppose the above policy is in place. How should the carbon budget be divided among countries?

  The emission share of a country should be proportional to its population, so that each human has an equal right to emit.; The emission share of a country should be proportional to its current emissions, so that those who already emit more have more rights to emit.; Countries that have emitted more over the past decades (from 1990 onwards) should receive a lower emission share, because they have already used some of their fair share.; Countries that will be hurt more by climate change should receive a higher
- 94. [In the U.S., Denmark, and France only] To achieve a given reduction of greenhouse gas emissions globally, costly investments are needed. Ideally, how should countries bear the costs of fighting climate change?
  - Countries should pay in proportion to their income

emission share, to compensate them for the damages.

- Countries should pay in proportion to their current emissions
- Countries should pay in proportion to their past emissions (from 1990 onwards)

- The richest countries should pay it all, so that the poorest countries do not have to pay anything
- The richest countries should pay even more, to help vulnerable countries face adverse consequences: vulnerable countries would then receive money instead of paying

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 95. Do you support or oppose establishing a global democratic assembly whose role would be to draft international treaties against climate change? Each adult across the world would have one vote to elect members of the assembly.

  Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support
- 96. Imagine the following policy: a global tax on greenhouse gas emissions funding a global basic income. Such a policy would progressively raise the price of fossil fuels (for example, the price of gasoline would increase by [40 cents per gallon] in the first years). Higher prices would encourage people and companies to use less fossil fuels, reducing greenhouse gas emissions. Revenues from the tax would be used to finance a basic income of [\$30] per month to each human adult, thereby lifting the 700 million people who earn less than \$2/day out of extreme poverty. The average British person would lose a bit from this policy as they would face [\$130] per month in price increases, which is higher than the [\$30] they would receive.

Do you support or oppose such a policy? Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

97. Do you support or oppose a tax on all millionaires around the world to finance low-income countries that comply with international standards regarding climate action? This would finance infrastructure and public services such as access to drinking water, healthcare, and education.

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

# Housing and cattle products

(In Brazil, Mexico, India, and Indonesia, these 5 questions on heating were not asked. In Australia, they were asked with *cooling* instead of *heating*.)

98. (If "Owner" or "Landlord renting out" at 13) How likely is it that you will improve the insulation or replace the heating system of your accommodation over the next 5 years?

Very unlikely; Somewhat unlikely; Somewhat likely; Very likely

- 99. (If "Owner" or "Landlord renting out" at 13) What are the main hurdles preventing you from improving the insulation or replace the heating system of your accommodation? (Multiple answers are possible)

  The choice to insulate or replace the heating system is not mine; The upfront costs are too high; It is too much effort; It won't improve its energy efficiency; My insulation and heating systems are already satisfactory
- 100. GROUP 1. Imagine that [country] government makes it mandatory for all residential buildings to have insulation that meets a certain energy efficiency standard before 2040. The government would subsidise half of the insulation costs to help households with the transition. Do you support or oppose such policy?
- 101. GROUP 2. Imagine that [country] government makes it mandatory for all residential buildings to have insulation that meets a certain energy efficiency standard before 2040. The government would subsidise half of the insulation costs to help households with the transition. Insulating your home can take long, may cause disruptions to your daily life during the renovation works, and may even require you to leave your home until the renovation is completed. Do you support or oppose such policy? Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support
- 102. Imagine that [country] government makes it mandatory for all residential buildings to have insulation that meets a certain energy efficiency standard before 2040. The government would subsidise half of the insulation costs to help households with the transition. Insulating your home can take long, may cause disruptions to your daily life during the renovation works, and may even require you to leave your home until the renovation is completed. Do you support or oppose such policy?

  Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support
- 103. (In India, this question was skipped.) Imagine that, in order to fight climate change, [country] government decides to limit the consumption of cattle products like beef and dairy. Do you support or oppose the following options?
  - A high tax on cattle products, so that the price of beef doubles
  - Subsidies on organic and local vegetables, fruits, and nuts
  - The removal of subsidies for cattle farming
  - The ban of intensive cattle farming

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support; Strongly support

## Trust, perceptions of institutions, inequality, and the future

- 104. Do you agree or disagree with the following statement: "Most people can be trusted." Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 105. Do you agree or disagree with the following statement: "Over the last decade, [country] government could generally be trusted to do what is right."

  Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 106. Some people think the government is trying to do too many things that should be left to individuals and businesses. Others think that the government should do more to solve our country's problems. Which come closer to your own view?

  Government is doing too much; Government is doing just the right amount; Government should do more
- 107. How big of an issue do you think income inequality is in [country]?

  Not an issue at all; A small issue; An issue; A serious issue; A very serious issue
- 108. Do you think that overall people in the world will be richer or poorer in 100 years from now?

Much poorer; Poorer; As rich as now; Richer; Much richer

#### Feedback

- 109. Do you feel that this survey was politically biased?

  Yes, left-wing biased; Yes, right-wing biased; No, I do not feel it was biased
- 110. The survey is nearing completion. You can now enter any comments, thoughts or suggestions in the field below.

#### Petition

111. Finally, are you willing to sign a petition to "stand up for real climate action"? As soon as the survey is complete, we will send the results to the [head of state's] office, informing him what share of people who took this survey were willing to support the following petition. "I agree that immediate action on climate change is critical. Now is the time to dedicate ourselves to a low-carbon future and prevent lasting damage to all living things. Science shows us we cannot afford to wait to cut harmful carbon emissions. I'm adding my voice to the call to world leaders in [country] and beyond — to act so we do not lose ground in combating climate change." Do you support this petition (you will NOT be asked to sign, only your answer here is required and remains anonymous)?

Yes; No

# A-7 U.S. Robustness Survey Questionnaire

### Consent

1. Welcome to this survey.

This is a survey conducted for academic research. It will take approximately 15 minutes to complete. The survey data is used for research purposes only, and the research is non-partisan. You will be compensated for this survey if you complete the survey and your responses pass our survey quality checks. These checks use statistical control methods to detect incoherent and rushed responses. It is very important for the validity of our research that you answer honestly and read the questions carefully before answering.

The purpose of this survey is for us to understand what shapes your views on current policy matters, what you think should be done, what you believe is fair, and what you think the government should do. You should know the following:

- You may not be told everything. As part of this research design, you may not be told about the purpose or procedures of this research. However, the purpose or procedures of the research will be disclosed to you following your participation.
- Whether or not you take part is up to you. Your participation is completely voluntary. You can choose not to take part. You can agree to take part and later change your mind. Your decision will not be held against you. Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive. You can ask all the questions you want before you decide.
- If you have questions, concerns, or complaints, or think the research has hurt you, contact the research team at social.economics.research2020@gmail.com or call the Harvard University Area Institutional Review Board ("IRB") at (617) 496-2847.

All of the answers you provide will remain anonymous and be treated with absolute confidentiality.

Do you agree to participate in the survey? Yes; No

# Background questions

- 2. What is your **gender**? *Male*; *Female*; *Other*
- 3. Which **ZIP code** do you currently live in? [Text entry]

- 4. How old are you?

  Below 18; 18 to 24; 25 to 34; 35 to 49; 50 to 64; 65 and above
- 5. Which one of these best describes your **ethnicity/race**?

  European American/White; African American/Black; Hispanic/Latino; Asian/Asian
  American; American Indian or Alaskan Native; Native Hawaiian or Other Pacific
  Islander; Other
- 6. What was your **TOTAL household** income, **before taxes**, in 2023? \$0-\$14,999; \$15,000-\$24,999; \$25,000-\$34,999; \$35,000-\$49,999; \$50,000-\$74,999; \$75,000-\$99,999; \$100,000-\$149,999; \$150,000-\$199,999; \$200,000+
- 7. What type of agglomeration do you live in?

  A rural area; A small town (5,000 20,000 inhabitants); A large town (20,000 50,000 inhabitants); A small city or its suburbs (50,000 250,000 inhabitants); A large city or its suburbs (250,000 3,000,000 inhabitants); A very large city or its suburbs (more than 3 million inhabitants)
- 8. How many **children** below 14 live with you? 0; 1; 2; 3; 4 or more
- 9. What is the **highest level of education** you have completed?

  Primary education or less; Some High School; High School degree/GED; Some College; 2-year College Degree; 4-year College Degree; Master's Degree; Doctoral Degree; Professional Degree (JD, MD, MBA)
- 10. What is your **employment status**?

  Full-time employed; Part-time employed; Self-employed or small business owner; Student; Retired; Unemployed and looking for a job; Not currently working and not looking for a job
- 11. (If "Full-time employed", "Part-time employed", or "Self-employed" to 10) If you work in any of the following industries, please select one describing your industry best. Oil, gas or coal; Other energy industries; Cement production; Construction; Automobile manufacturing; Iron and steel manufacturing; Chemical manufacturing; Plastics production; Pulp and paper production; Farming (crop or livestock); Air transport (e.g. airlines); No, none of the above
- 12. (If "Retired", "Unemployed (searching for a job)", "Inactive (not searching for a job)" to 10) If in your last job you worked in any of the following industries, please select one describing your industry best Oil, gas or coal; Other energy industries; Cement production; Construction; Automobile manufacturing; Iron and steel manufacturing; Chemical manufacturing; Plastics production; Pulp and paper production; Farming (crop or livestock); Air transport (e.g. airlines); No, none of the above

13. Are you a homeowner or a tenant? (Multiple answers are possible) Tenant; Owner; Landlord renting out property

#### Political views

14. [Attention check question] To show that you are attentive, please select "a little" in the following list:

Not at all; A little; Moderately; A lot; A great deal

- 15. What do you consider to be your political affiliation, as of today? Republican; Democrat; Independent; Other; Non-Affiliated
- 16. Did you vote in the 2020 Presidential election?

  Yes; No: I don't have the right to vote in the United States; Prefer not to say
- 17. (If "Yes" to 16) Which candidate did you vote for in the 2020 Presidential election? Joe Biden; Donald Trump; Other
- 18. (If not "Yes" to 16) Even if you did NOT vote in the 2020 election, please indicate the candidate that you were most likely to have voted for or who represents your views more closely.

Joe Biden; Donald Trump; Other

19. On economic policy matters, where do you see yourself on the liberal/conservative spectrum?

Very liberal; Liberal; Moderate; Conservative; Very conservative

20. Are you a member of an environmental organization? Yes: No

# Household composition and energy characteristics

- 21. In a typical month, how much do you spend on heating for your accommodation?

  I don't know; Less than [\$20]; [\$20]-[\$75]; [\$75]-[\$125]; [\$125]-[\$200]; [\$200]-[\$250];

  [\$250]-[\$300]; More than [\$300]
- 22. In a typical month, how much do you spend on gas for driving?

  Less than [\$5]; [\$5]-[\$25]; [\$25]-[\$75]; [\$75]-[\$125]; [\$125]-[\$175]; [\$175]-[\$225]; More than [\$225]
- 23. How many round-trip flights did you take between 2021 and 2023? 0; 1; 2; 3 or 4; 5 to 7; 8 to 14; 15 or more
- 24. How often do you eat beef?

  Never; Less than once a week; One to four times per week; Almost or at least daily

- 25. Which mode of transport did you mainly use for each of the following trips in 2023?
  - Commute to work or place of study
  - Grocery shopping
  - Recreational and leisure activities (excluding holiday travel)

Car or Motorbike; Public Transport; Walking or Cycling; Other; Not Applicable

26. How do you rate the availability (ease of access and frequency) of public transportation where you live?

Very poor; Poor; Fair; Good; Excellent

## Attitudes and risks – New Questions

27. In your view, is global climate change a very serious problem, somewhat serious, not too serious or not a problem?

A very serious problem; A somewhat serious problem; Not too serious; Not a problem

28. Do you think our country does or does not have a responsibility to take steps to deal with climate change?

Does; Does not

29. How concerned are you, if at all, that global climate change will harm you personally at some point in your lifetime? Are you very concerned, somewhat concerned, not too concerned or not at all concerned?

concerned; somewhat concerned; not too concerned; not at all concerned

30. How confident are you that actions taken by the international community will significantly reduce the effects of global climate change – very confident, somewhat confident, not too confident, or not at all confident?

very confident; somewhat confident; not too confident; not at all confident

31. Do you think climate change will be a threat to people in your country in the next 20 years?

Very serious threat; Somewhat serious threat; Not a threat at all; Don't know

32. Which of the following are you most concerned about? The impacts of global warming on...

you and your family; your local community; the U.S. as a whole; people all over the world; non-human nature; not at all concerned

33. Do you think actions taken by the international community to address global climate change, such as the Paris climate agreement, will mostly benefit the U.S. economy, mostly harm the U.S. economy, or have no impact?

mostly benefit the U.S. economy; mostly harm the U.S. economy; have no impact

34. How much do you think climate change will harm you personally?

A great deal; A moderate amount; Only a little; Not at all; Don't know

### Preferences on climate policies

### Policy 1: Ban on the sale of combustion-engine cars

To fight climate change, car producers can be required by law to produce cars that emit less CO<sub>2</sub> per mile of the cars they sell. The emission limit is lowered every year so that only electric or hydrogen vehicles can be sold after 2030. This policy is called a ban on combustion-engine cars. We will now ask you a few questions regarding this specific policy.

### **Original Questions**

- 35. Do you agree or disagree with the following statements? A ban on combustion-engine cars would...
  - reduce air pollution
  - reduce CO<sub>2</sub> emissions from cars
  - have a negative effect on the U.S. economy and employment

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 36. In your view, would the following groups win or lose if a ban on combustion-engine cars was implemented in the U.S.?
  - Low-income earners
  - High-income earners

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

37. Do you think that your household would win or lose financially from a ban on combustionengine cars?

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

38. Do you support or oppose a ban on combustion-engine cars?

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

Strongly support

#### **Incentivized Questions**

[TREATED] If your answers to the questions on the next page are accurate, you will be entered in a lottery to win a \$80 bonus, to be converted into Panel Points. Only those who answer correctly will be part of this lottery. In a few days, you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part.

39. Do you think a ban on combustion-engine cars would decrease or increase CO<sub>2</sub> emissions from cars"

Decrease; Neither decrease nor increase; Increase

40. Do you think a ban on combustion-engine cars would decrease or increase the total costs of owning a car for low-income families (earning less than \$25,000 a year)?

Decrease; Neither decrease nor increase; Increase

### Policy 2: Green infrastructure program

A green infrastructure program is a large public investment program, which would be financed by additional public debt, to accomplish the transition needed to cut greenhouse gas emissions. Investments would concern renewable power plants, public transport, thermal renovation of buildings, and sustainable agriculture. We will now ask you a few questions regarding this specific policy.

#### **Original Questions**

- 41. Do you agree or disagree with the following statements? A green infrastructure program would...
  - make electricity production greener
  - increase the use of public transport
  - reduce air pollution
  - have a negative effect on the U.S. economy and employment

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 42. In your view, would the following groups win or lose with a green infrastructure program?
  - Low-income earners
  - High-income earners

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

43. Do you think that your household would win or lose financially from a green infrastructure program?

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

44. Do you support or oppose a green infrastructure program?

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

Strongly support

#### **Incentivized Questions**

[TREATED] If your answers to the questions on the next page are accurate, you will be entered in a lottery to win a \$80 bonus, to be converted into Panel Points. Only those who answer correctly will be part of this lottery. In a few days, you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part.

45. Do you think a green infrastructure program should decrease or increase carbon emissions from the electricity sector?

Decrease; Neither decrease nor increase; Increase

46. If the U.S. invests a lot in renewable energy to reach zero emissions in electricity production by 2035, what will happen to jobs for people without a college degree? Decrease; Neither decrease nor increase; Increase

# Policy 3: Carbon tax with cash transfers

To fight climate change, the U.S. government can make greenhouse gas emissions costly, to make people and firms change their equipment and reduce their emissions. The government could do this through a policy called a carbon tax with cash transfers. Under such a policy, the government would tax all products that emit greenhouse gas. For example, the price of gasoline would increase by 40 cents per gallon. To compensate households for the price increases, the revenues from the carbon tax would be redistributed to all households, regardless of their income. Each adult would thus receive \$600 per year.<sup>34</sup> We will now ask you a few questions regarding this specific policy.

#### **Original Questions**

47. Do you agree or disagree with the following statements? A carbon tax with cash transfers would...

 $<sup>^{34}</sup>$ The tax considered is (implicitly) set at \$45 per ton of CO<sub>2</sub> (see Appendix A-11.1.1 for details of the computation.

- encourage people to drive less
- encourage people and companies to insulate buildings
- reduce the use of fossil fuels and greenhouse gas emissions
- reduce air pollution
- have a negative effect on the U.S. economy and employment

Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree

- 48. In your view, would the following groups win or lose under a carbon tax with cash transfers?
  - Low-income earners
  - High-income earners

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

49. Do you think that your household would win or lose financially under a carbon tax with cash transfers?

Lose a lot; Mostly lose; Neither win nor lose; Mostly win; Win a lot

50. Do you support or oppose a carbon tax with cash transfers?

Strongly oppose; Somewhat oppose; Neither support nor oppose; Somewhat support;

Strongly support

#### **Incentivized Questions**

[TREATED] If your answers to the questions on the next page are accurate, you will be entered in a lottery to win a \$80 bonus, to be converted into Panel Points. Only those who answer correctly will be part of this lottery. In a few days, you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part.

51. Do you think a carbon tax with cash transfers would decrease or increase carbon emissions?

Decrease; Neither decrease nor increase; Increase

52. Do you think that low-income earners would win or lose financially under a carbon tax with cash transfers?

Lose; Neither win nor lose; Win

## Social Desirability Bias

- 53. How many of the following policies do you support? You do not need to tell us which ones, just how many:
  - \$10,000 in student loans for people earning less than \$125,000 a year; Cut sentence enhancements, like third strikes, to shorten prison terms; Eliminate most current gun laws to protect Second Amendment rights; Cut military and financial support to Ukraine; [only treated branch] A carbon tax with cash transfers
- 54. How many of the following behaviors have you adopted or are you willing to adopt? You do not need to tell us which ones, just how many:

  Limit alcohol consumption; Donate 5% of your income to charity; Read one book per month; [only treated branch] Limit meat/beef consumption

### Attitudes and risks – Original Questions

- 55. Do you agree or disagree with the following statement? "Climate change is an important problem."
  - Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 56. How likely is it that humankind halts climate change by the end of the century? Very unlikely; Somewhat unlikely; Somewhat likely; Very likely
- 57. To what extent do you think climate change already affects or will affect your personal life negatively?
  - Not at all; A little; Moderately; A lot; A great deal
- 58. If we decide to halt climate change through ambitious policies, what would be the effects on the U.S. economy and employment?

  Very negative effects; Somewhat negative effects; No noticeable effects; Somewhat pos
  - itive effects; Very positive effects
- 59. If nothing is done to limit climate change, how likely do you think it is that climate change will lead to the following events?
  - Severe droughts and heatwaves
  - More frequent volcanic eruptions
  - Rising sea levels
  - Drop in standards of living
  - Larger migration flows
  - More armed conflicts
  - Extinction of humankind

Very unlikely; Somewhat unlikely; Somewhat likely; Very likely

### Climate knowledge

[TREATED] If your answers to the questions on the next THREE pages are accurate, you will be entered in a lottery to win a \$80 bonus, to be converted into Panel Points. Only those who answer correctly will be part of this lottery. In a few days, you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part.

- 60. In your opinion, is climate change real? Yes; No
- 61. (If "Yes" to 60) What part of climate change do you think is due to human activity? None; A little; Some; A lot; Most
- 62. Greenhouse gases are gases that trap heat in the atmosphere and make the Earth warmer, causing climate change. In particular, the burning of fossil fuels and agricultural production emit greenhouse gases. Which of the following elements contribute to climate change? (Multiple answers are possible)

  CO<sub>2</sub>; Hydrogen; Methane; Particulate matter
- 63. Do you think that cutting global greenhouse gas emissions by half now and keeping them at that level would be sufficient to eventually stop temperatures from rising? Yes; No
  - For the next three questions we would like you to rank the items according to the greenhouse gas emissions they emit, to the best of your knowledge (where 1 is the item that emits the most and 3 the item that emits the least). The greenhouse gas emissions of a product are those emitted at all steps involved in its production and distribution.
- 64. If a family of 4 travels 500 miles from New York City to Toronto, with which mode of transportation do they emit the most greenhouse gases? Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).

  Car (running on diesel or gasoline); Coach; Plane
- 65. Which dish emits the most greenhouse gases? We consider that each dish weighs half a pound. Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).
  - A beef steak; One serving of pasta; Chicken wings
- 66. Which source of electric energy emits the most greenhouse gases to provide power for a house? Please rank the items from 1 (most) to 3 (least) (by clicking and dragging the items).
  - Gas-fired power plant; Nuclear power plant; Coal-fired power station

- 67. Which region contributes most to global greenhouse gas emissions? Please rank the regions from 1 (most) to 4 (least) and note that multiple regions may have the same rank.
  - The U.S.
  - The European Union
  - China
  - India

1; 2; 3; 4

- 68. Consider now per capita emissions: in which region does the consumption of an average person contribute most to greenhouse gas emissions? Please rank the regions from 1 (most) to 4 (least).
  - The U.S.
  - The European Union
  - China
  - India

1; 2; 3; 4

# Trust, perceptions of institutions, inequality, and the future

- 69. Do you agree or disagree with the following statement? "Over the last three years, the U.S. government could generally be trusted to do what is right."

  Strongly disagree; Somewhat disagree; Neither agree nor disagree; Somewhat agree; Strongly agree
- 70. How big of an issue do you think income inequality is in the U.S.?

  Not an issue at all; A small issue; An issue; A serious issue; A very serious issue

#### **Feedback**

71. Do you feel that this survey was politically biased?

Yes, left-wing biased; Yes, right-wing biased; No, I do not feel it was biased

#### **Debrief Statement**

Thank you for your participation in our research study.

We would like to discuss with you in more detail the study you just participated in and to explain exactly what we were trying to study.

Before we tell you about all the goals of this study, however, we want to explain why it is necessary in some kinds of studies to not tell people everything about the purpose of the study before they begin.

As you may know, scientific methods sometimes require that participants in research studies are not given complete information about the research until after the study is completed. Although we cannot always tell you everything before you begin your participation, we do want to tell you everything when the study is completed.

We don't always tell people everything at the beginning of a study because we do not want to influence your responses. If we tell people what the purpose of the study is and what we predict about how they will respond, then their responses would not be a good indication of how they would respond in everyday situations.

This study had two goals: understand what you know about climate change and the environment and see what could change your views on climate change or related policies. For this purpose, we varied the financial incentives for answering the survey and varied the list of items in one question asking you to count how many items applied to you. This was randomized, meaning that you were randomly allocated to one of these branches, while other respondents went into other branches. We could not tell you this beforehand as this may have affected your responses and we wanted them to be as they would in a real world setting. Please note that the information was ENTIRELY accurate and there is nothing misleading in any of the questions.

If other people knew the true purpose of the study, it might affect how they behave/answer questions, so we are asking you not to share the information we just discussed.

I hope you enjoyed your experience and I hope you learned some things today. If you have any questions please feel free to contact us at the email provided in the consent form.

Do you have any other questions or comments about anything you did today or anything we've talked about?

Thank you again for your participation

# A-8 U.S. Robustness Survey Results