Public Acceptability of Climate Change Mitigation Policies

Building evidence from large scale and cross-country surveys

OECD Economics Department
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Motivation

Policies to address climate change have been **difficult to implement**

The political economy and public acceptability needs to play an important role in the design of climate policies

Resistance to climate change mitigation action arises largely from:

- Legitimate concerns about **distributional and lifestyle impacts**
- **Misconceptions** about the impacts of climate change and the effects of climate policies on the economy and the environment

Addressing concerns and misconceptions may be difficult, as they are influenced by personal attributes, country specificities and political views

Limitations of existing research

Scope is narrow: typically limited to a single (developed) country, focus on carbon pricing, and international surveys include only very general questions

- *For reviews of the surveys, see: Carattini et al. 2018, Drews and van den Bergh, 2016*

Evidence is mainly descriptive: cross-country evidence remains largely descriptive.

- The effectiveness of information provision and the willingness to update perceptions and beliefs following new information remains unclear

Comparability is limited: it is difficult to know if differences in people's perceptions and preferences are driven by individual survey characteristics (e.g. format and phrasing) or by true cross-country differences

Studies on willingness to support climate policies usually **do not offer an incentive relying on an actual payment and tangible actions**

The OECD project

The OECD has started to conduct **large-scale surveys across multiple countries using a homogeneous methodology** to analyse country-specific perception of climate change impacts and acceptability of various climate policies

Ongoing or planned: United States, France, Denmark, India, Spain

Further countries considered: United Kingdom, Germany…

Project objectives

Overall goal: contribute to **construct country-specific advice** on policies to deal with the transition to a low-carbon economy

Mechanism: understand **people's perceptions about climate change and preferences** over available climate policies

Methodology: large-scale cross-country surveys with three different and randomized **groups provided with information** about the impacts of climate change and related policies

- ~2,000 respondents/country, representative of the population
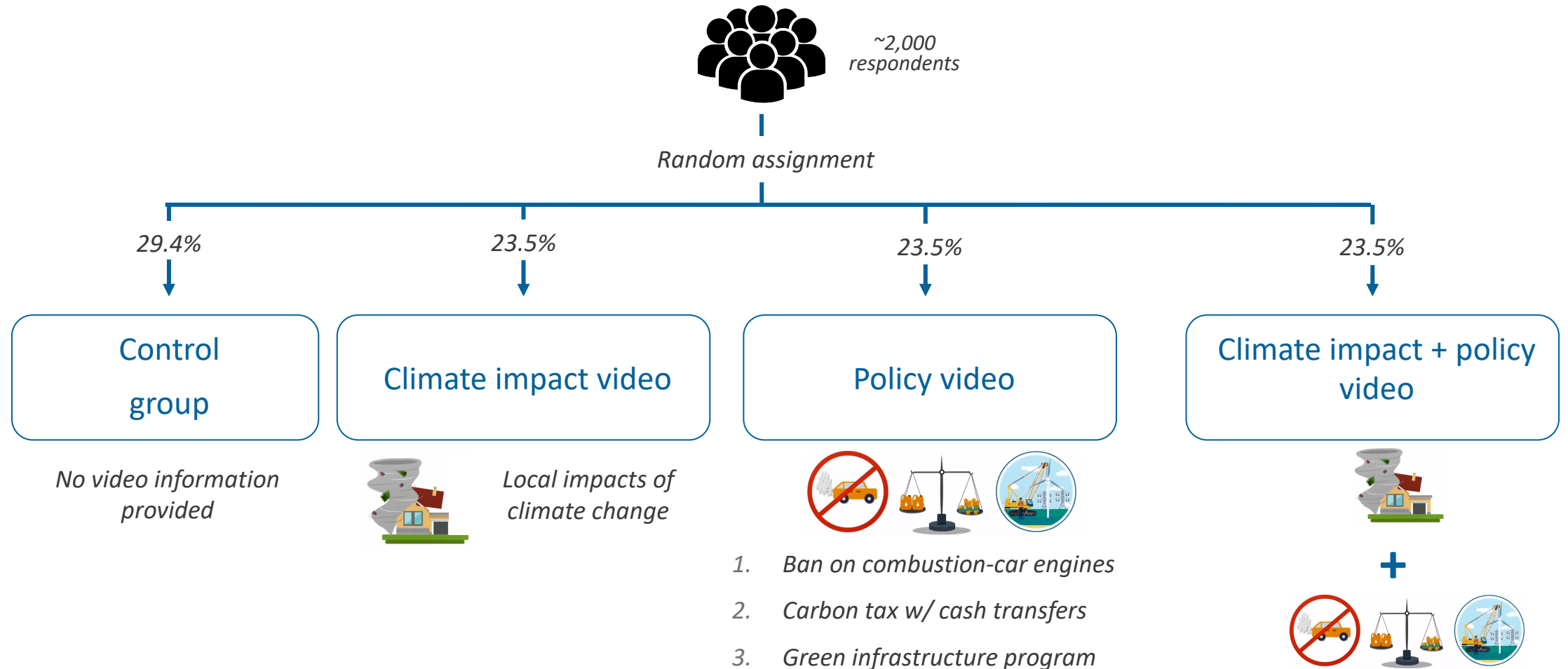
Main research questions

Drivers of policy support: reveal how social attitudes, values, and perceptions drive support or opposition for climate policies

Cross-country comparisons: analyze how social preferences on climate change mitigation policies differ between countries

Effects of targeted information: understand how perceptions may change after receiving new information on the effects of policies/climate change (in a video format) and how it translates into beliefs and support

Targeted information

Targeted information consists in 2-5min. video either informing the participant about the **effects of the three main climate policies,** or underlying the **effects of climate change in their country**

~2,000 respondents

Random assignment

| 29.4% | 23.5% | 23.5% | 23.5% |

Control group

Climate impact video

Policy video

Climate impact + policy video

No video information provided

Local impacts of climate change

1. *Ban on combustion-car engines*
2. *Carbon tax w/ cash transfers*
3. *Green infrastructure program*

+

Timeline

Milestones:	Jan-20	Fev-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21
Pilot survey in the U.S.	██						
Analyse results from the U.S. pilot and refine questionnaire.	██	██	██				
Full survey in the U.S.			██	██			
Pilot in France, and refine questionnaire				██			
Full survey in France				██			
Survey in Denmark				██	██		
Survey in India					██	██	
Paper analysing these four countries						██	██

Survey structure

Survey structure

1. Socio-demographics
2. Household composition and energy characteristics
3. Open-ended question about climate change considerations
4. Information video
5. Climate knowledge
6. Climate attitudes
7. Policy 1: Ban on sale of combustion-engine cars

8. Policy 2: Green infrastructure program
9. Policy 3: Carbon tax with cash transfers
10. Preferences for climate policies
11. Willingness to pay
12. International burden-sharing
13. Housing policies/Preferences for bans vs. incentives
14. Trust, perceptions of institutions, inequality, and the future
15. Feedback

Total number of questions: 110
Median survey completion time: 28'

Information video examples
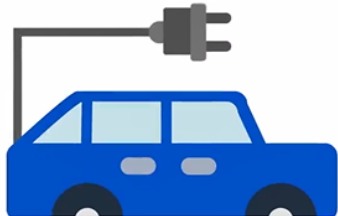
Local climate impact

With the mix of more hurricanes, rising sea levels, more heatwaves, and lower agricultural output
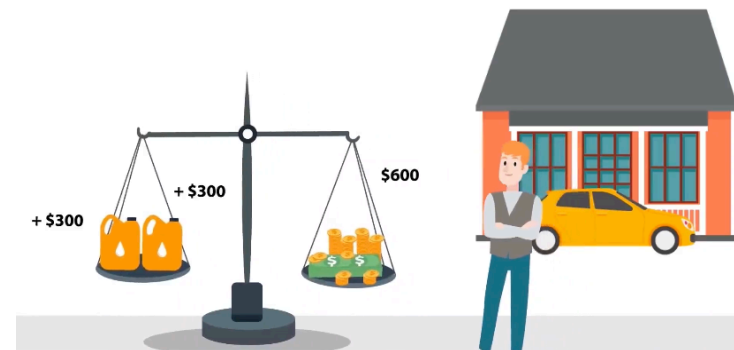
Green infrastructure program

In the US, such a programme could create 4 million jobs in green sectors, such as public transportation, renewable power plants, buildings' insulation, or sustainable agriculture.

Ban on combustion-engine cars

so that only electric or hydrogen vehicles can be sold after 2030.

Carbon tax with cash transfers

+ $300   + $300 $600

To compensate people for the higher prices, the revenues of the carbon tax would be redistributed to all households, regardless of their income.

Climate knowledge examples:
Understanding of the impacts of climate change

What part of climate change do you think is due to human activity?

None	A little	Some	A lot	Most

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

Climate attitudes examples:
From climate risks to climate policies

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 positive effects	Very positive effects

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.)?

	Not at all	A little	Moderately	A lot	A great deal
Ambitious climate policies	○	○	○	○	○
Having enough financial support	○	○	○	○	○
People around you also changing their behavior	○	○	○	○	○
The most well off also changing their behavior	○	○	○	○	○

Policy preferences examples

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 |

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

Additional public debt

Increase in sales taxes

Increase in taxes on the wealthiest

Reduction in social spending

Reduction in military spending

WTP example

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_2 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:

0	20	40	60	80	100

Donation amount (in U.S. dollars)

Highlights from pilot survey in U.S.

U.S. Pilot: key results

Sample: 582 respondents, not representative along the education, ethnicity/race, vote and occupation dimensions

Causes of climate change: a majority (67%) attributes climate change to human activity

Support for policies: A majority supports each climate policy proposed, with the except of carbon taxes

- **Preferred use of carbon tax revenues**: earmarking to green investments

- **Least-favored use of revenues**: compensating affected firms

Effectiveness to reduce GHG emissions: carbon tax with cash transfers is seen as the least cost-effective policy to reduce emissions (57% believe it's cost-effective) followed by a green infrastructure program (60%) and an emission limit for cars (64%)

Effect of targeted information: targeted and clear information campaigns on the mechanisms of carbon taxes can significantly increase support for this type of policy

Support for main policies
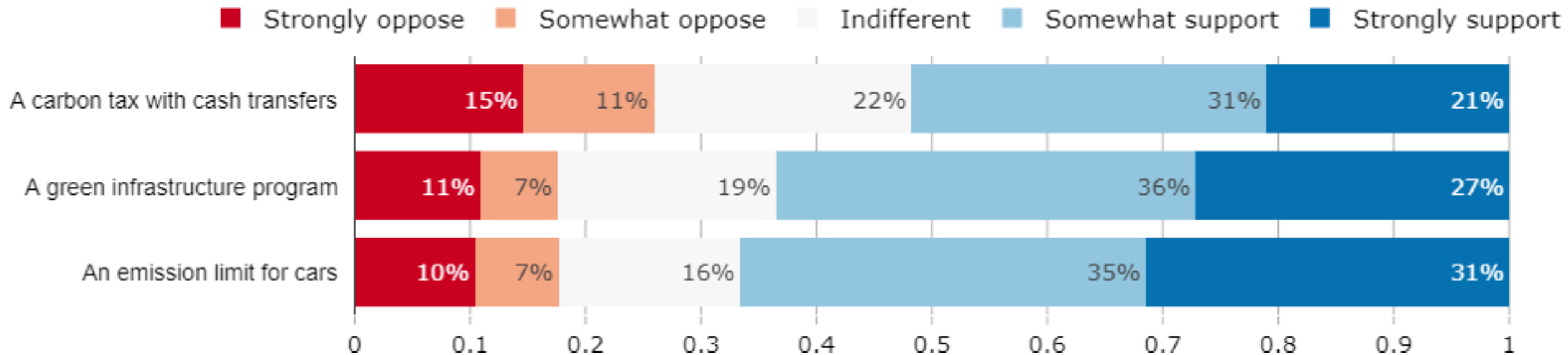
Legend: ■ Strongly oppose ■ Somewhat oppose □ Indifferent ■ Somewhat support ■ Strongly support

Policy	Strongly oppose	Somewhat oppose	Indifferent	Somewhat support	Strongly support
A carbon tax with cash transfers	15%	11%	22%	31%	21%
A green infrastructure program	11%	7%	19%	36%	27%
An emission limit for cars	10%	7%	16%	35%	31%

Notes: 582 respondents. Representative along the gender, age, income, region and rural/urban dimensions but not representative along the education, ethnicity/race, vote and occupation dimensions. Weighted along the gender, income, region, living in a metropolitan area, age, and race dimensions

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Support for different climate policies
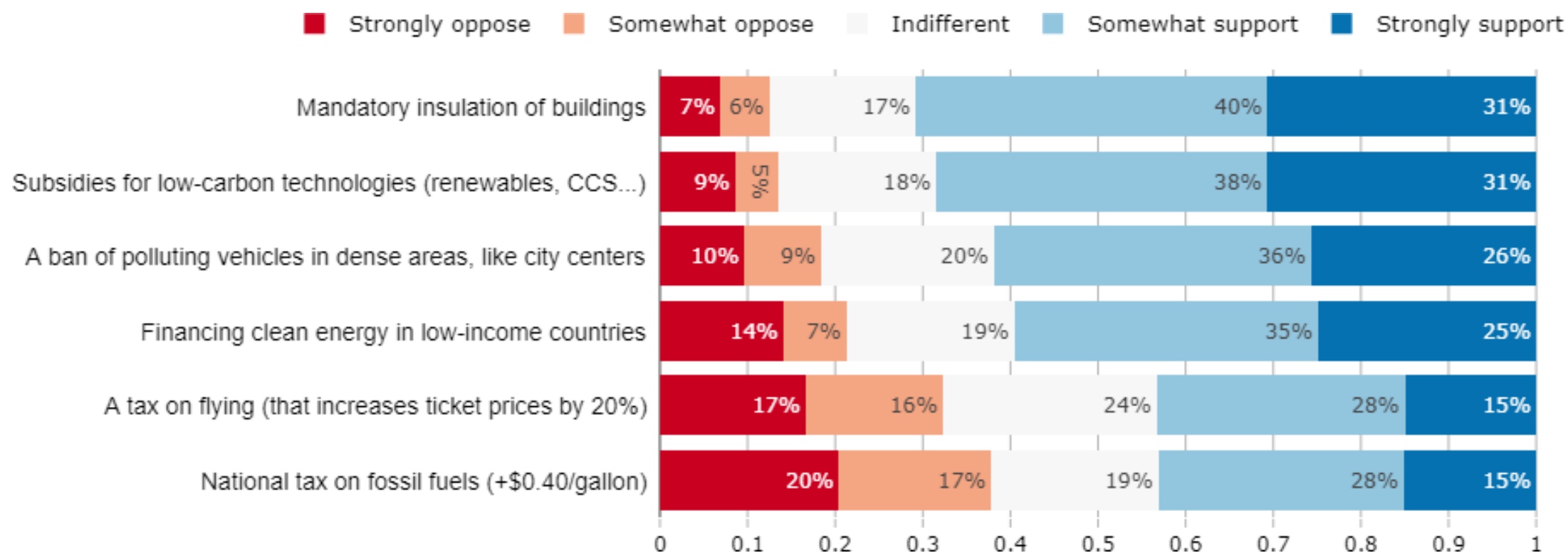
Legend: Strongly oppose · Somewhat oppose · Indifferent · Somewhat support · Strongly support

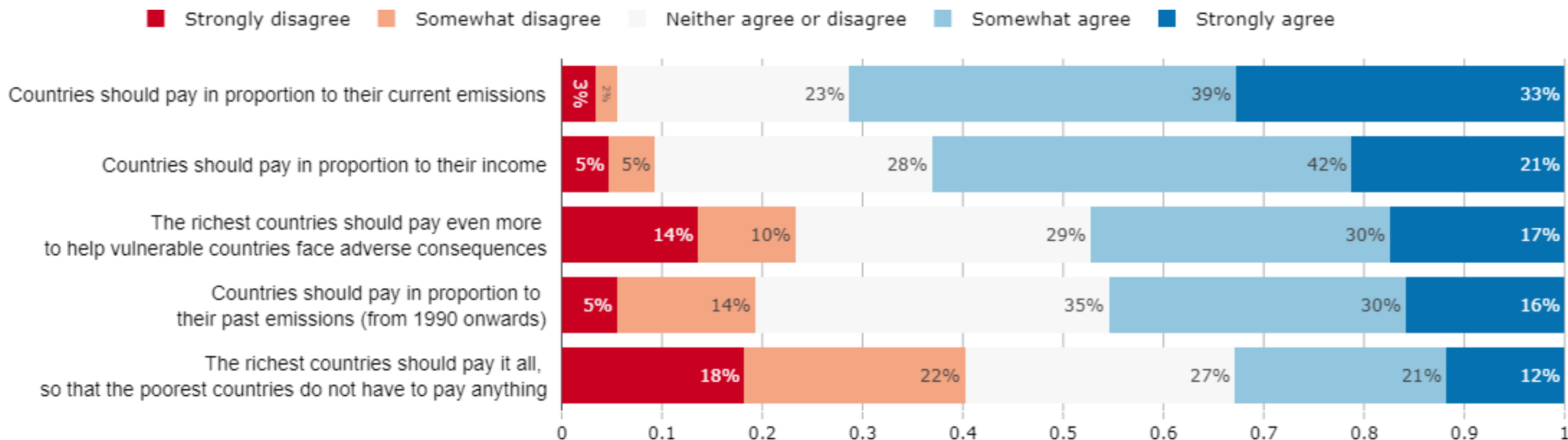| Policy	Strongly oppose	Somewhat oppose	Indifferent	Somewhat support	Strongly support
Mandatory insulation of buildings	7%	6%	17%	40%	31%
Subsidies for low-carbon technologies (renewables, CCS…)	9%	5%	18%	38%	31%
A ban of polluting vehicles in dense areas, like city centers	10%	9%	20%	36%	26%
Financing clean energy in low-income countries	14%	7%	19%	35%	25%
A tax on flying (that increases ticket prices by 20%)	17%	16%	24%	28%	15%
National tax on fossil fuels (+$0.40/gallon)	20%	17%	19%	28%	15%

Notes: 582 respondents. Representative along the gender, age, income, region and rural/urban dimensions but not representative along the education, ethnicity/race, vote and occupation dimensions. Weighted along the gender, income, region, living in a metropolitan area, age, and race dimensions

How should countries bear the costs of fighting climate change?

Legend: Strongly disagree · Somewhat disagree · Neither agree or disagree · Somewhat agree · Strongly agree

Statement	Strongly disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Strongly agree
Countries should pay in proportion to their current emissions	3%	2%	23%	39%	33%
Countries should pay in proportion to their income	5%	5%	28%	42%	21%
The richest countries should pay even more to help vulnerable countries face adverse consequences	14%	10%	29%	30%	17%
Countries should pay in proportion to their past emissions (from 1990 onwards)	5%	14%	35%	30%	16%
The richest countries should pay it all, so that the poorest countries do not have to pay anything	18%	22%	27%	21%	12%

Notes: 582 respondents. Representative along the gender, age, income, region and rural/urban dimensions but not representative along the education, ethnicity/race, vote and occupation dimensions. Weighted along the gender, income, region, living in a metropolitan area, age, and race dimensions

Thank you

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Literature

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