Climate survey - US pilot

OECD

Results of the third US pilot: sample of 582 respondents, representative along the gender, age, income, region and rural/urban dimensions.

March 2021

Representativeness

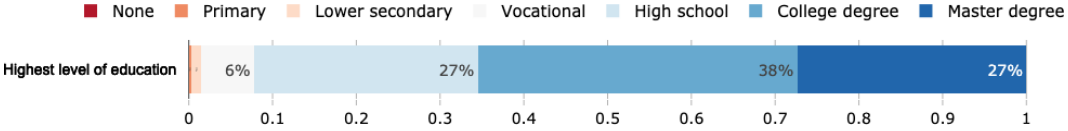


Figure: Discrepancy (only) for master degrees: should be 13%.

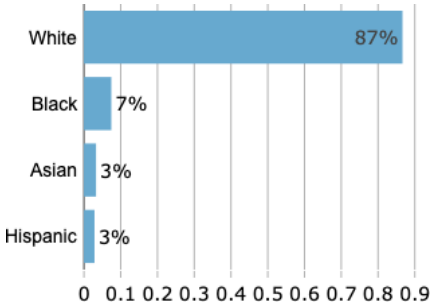
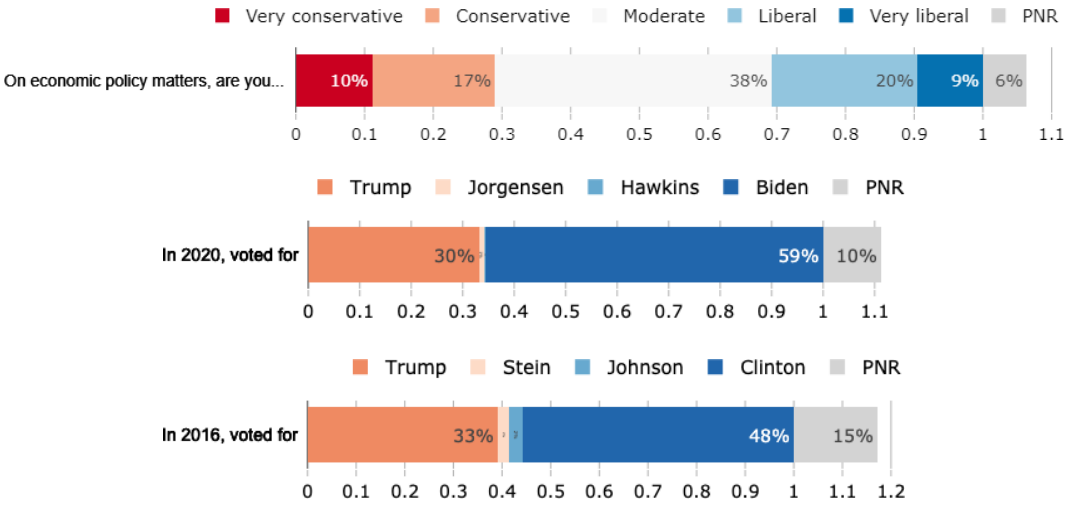
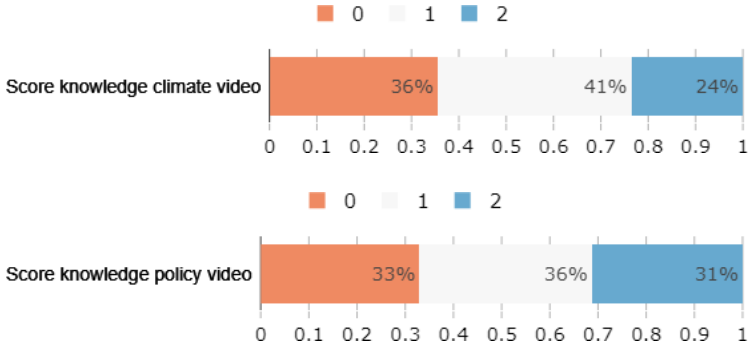


Figure: Not representative: should be 60% White, 19% Hispanic, 13% Black.

Political leaning



Watched videos attentively



Knowledge: general

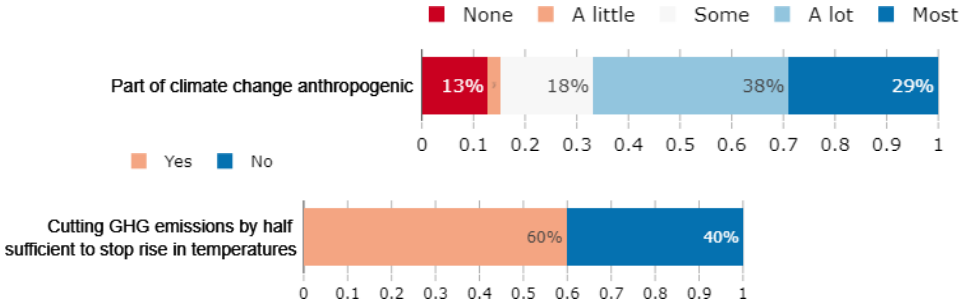


Figure: Right answer: No.

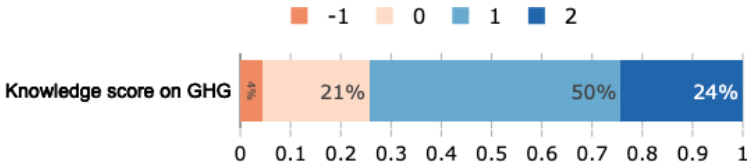


Figure: Score on GHG = CO2 + methane - hydrogen - particulates

Knowledge: GHG footprints

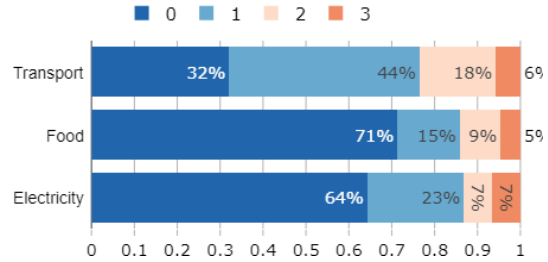
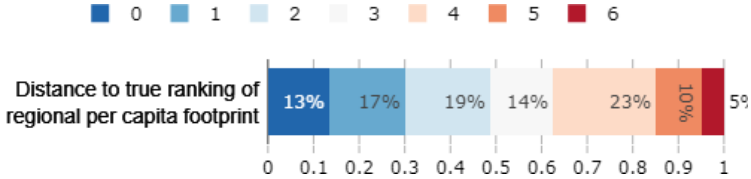
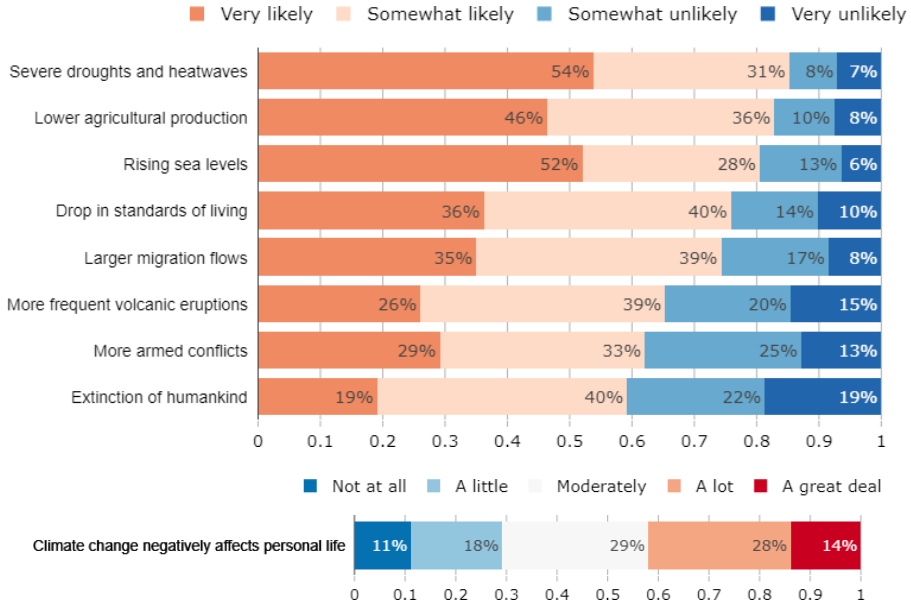


Figure: Kendall tau distance to correct ranking (plane>car>coach, beef>chicken>pasta, coal>gas>wind, US>Western Europe>China>India).



Impacts of CC



Climate Knowledge: summary

- People worry; knowledge is mixed.
- In line with previous research, we find that about 65% of Americans acknowledge that CC exists and is anthropogenic.
- A majority under-estimate the stringency of needed emission reductions.
- Most people understand what activities are most polluting, except for transport where knowledge is mixed. Most struggle identifying the correct ranking of regional per capita footprint.
- Most people correctly understand that climate change will entail more natural disasters, but wrongly think that volcanic eruptions will be more frequent.
- A majority thinks that CC puts humanity at risk of extinction, which is extremely pessimistic.
- A relative majority think they will be personally affected by CC.

Attitudes and risks

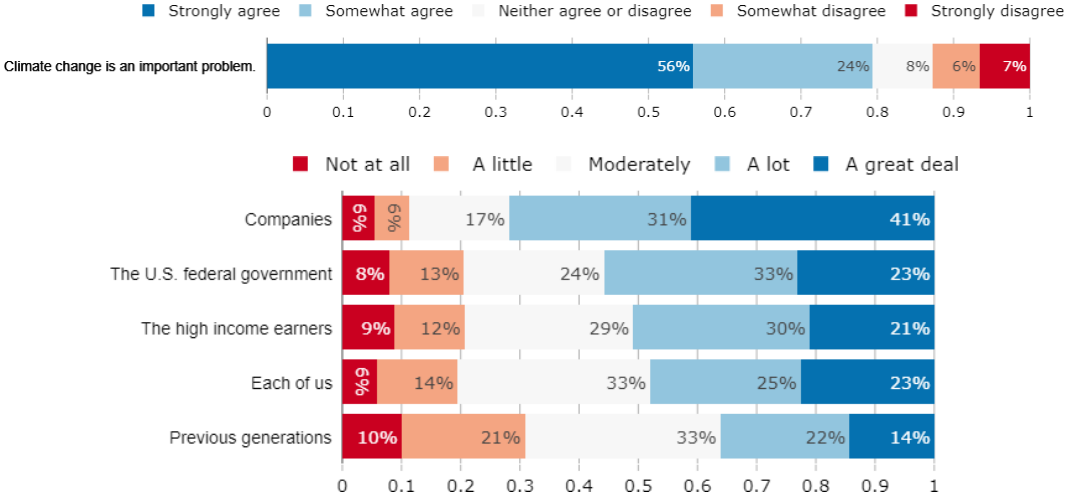
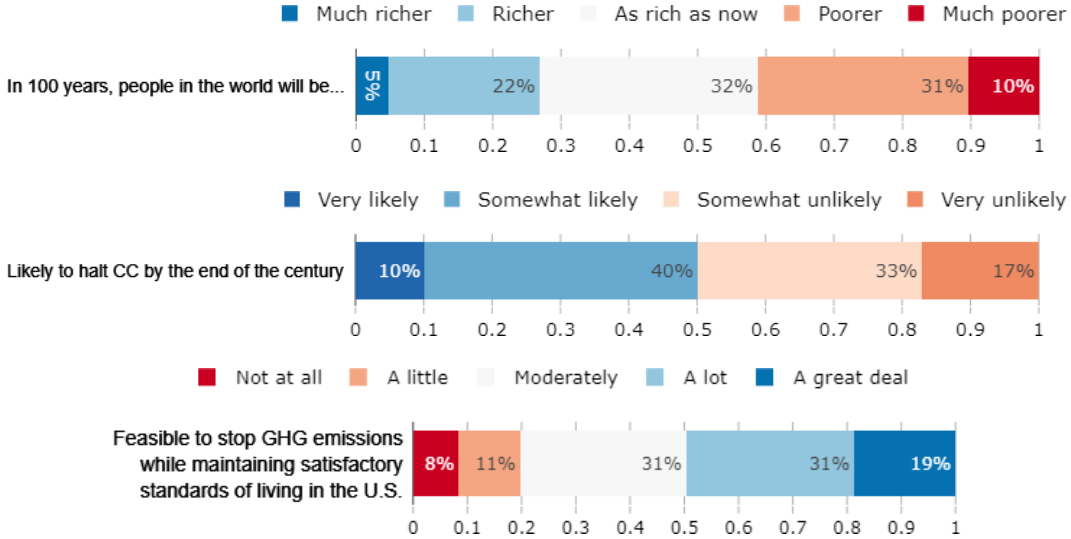
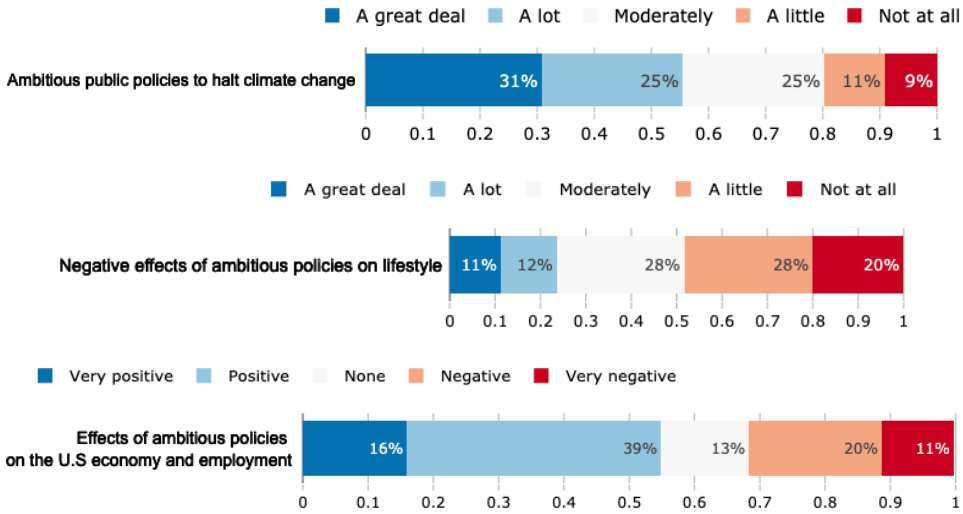


Figure: Perceived responsible entities

Beliefs about the future

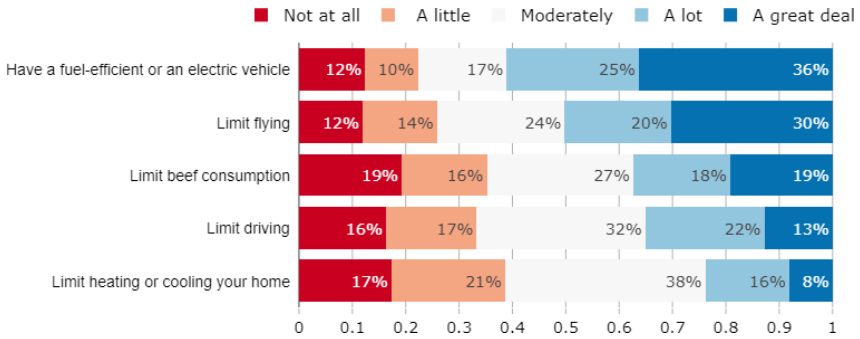


Beliefs about ambitious climate policies



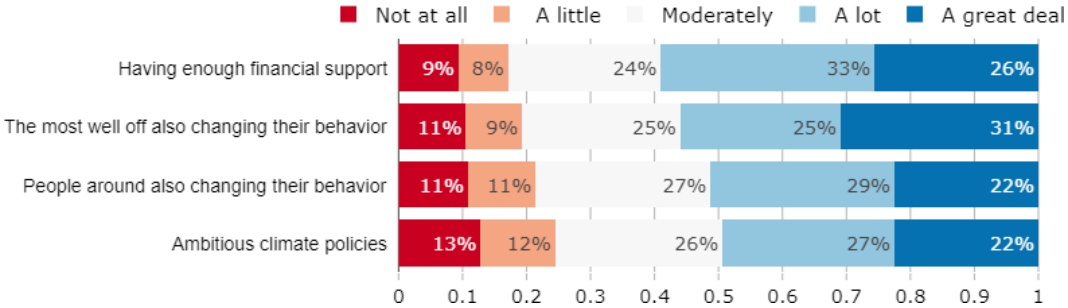
Willingness to change

Figure: Willing to adopt following behaviors



Factors needed to change lifestyle

Figure: 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.)?

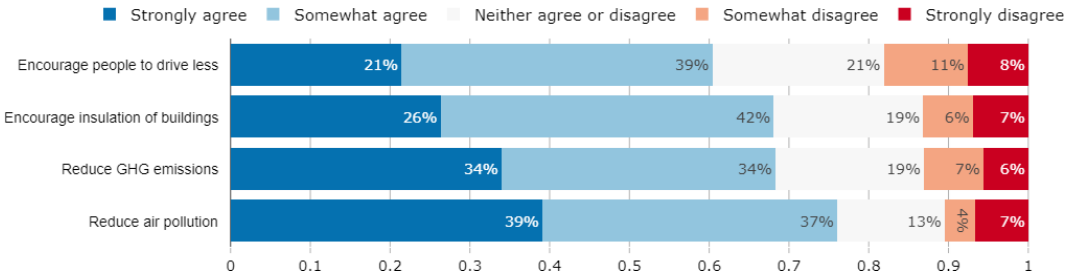


Climate attitudes: summary

- Most people agree CC is a problem and ambitious policies are needed.
- People are divided between optimistic and pessimistic (regarding future standards of living, technical feasibility to stop CC, and likelihood it will happen).
- People are divided between those who foresee positive effects of climate policies and a third who foresees negative effects.
- A third of people willing to forego some comfort, two-thirds willing to change behavior as long as it doesn't affect their comfort and they have enough financial means.

Policy effects

Figure: A carbon tax with cash transfers would...



Economic effects of the 3 policies

Figure: Large effect on US economy and employment

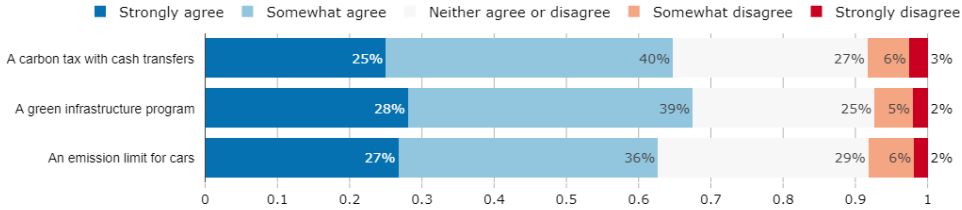


Figure: Negative effect on US economy and employment

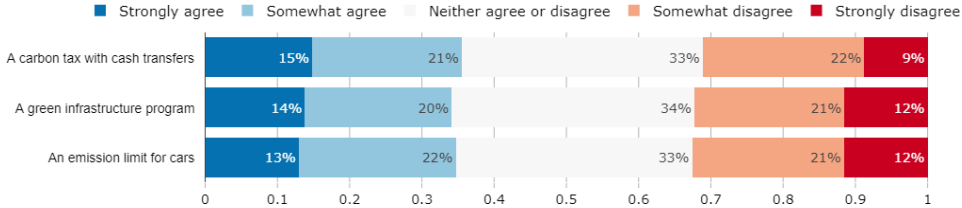


Figure: Cost-effective way to fight CC

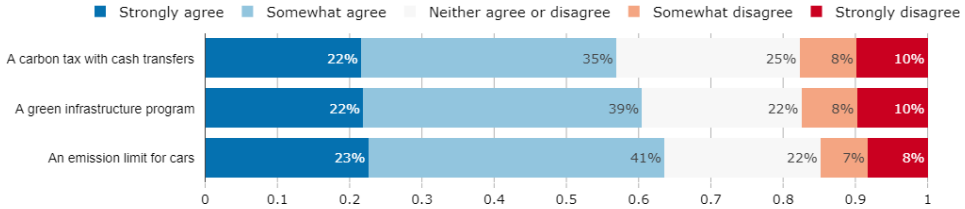
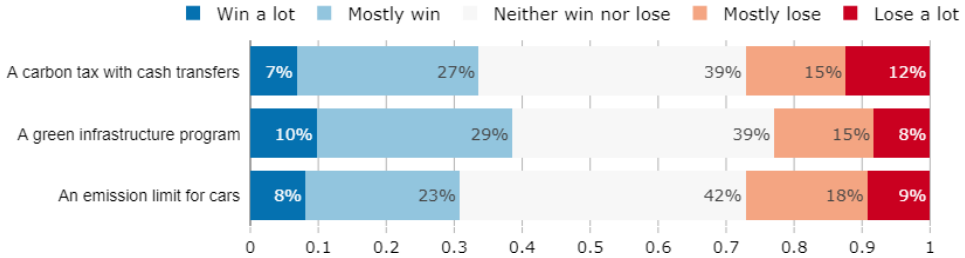


Figure: Effects on own household



Incidence

Figure: Effects on High-income earners

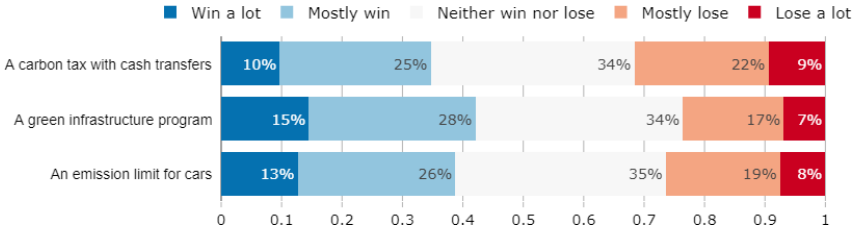
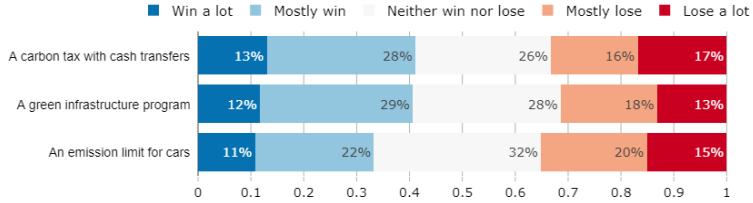


Figure: Effects on Low-income earners



Fairness and support

Figure: Fairness for policies

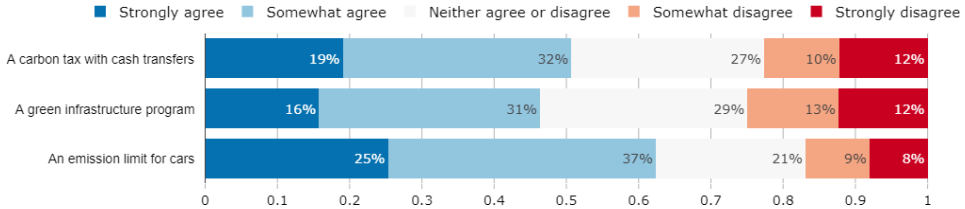
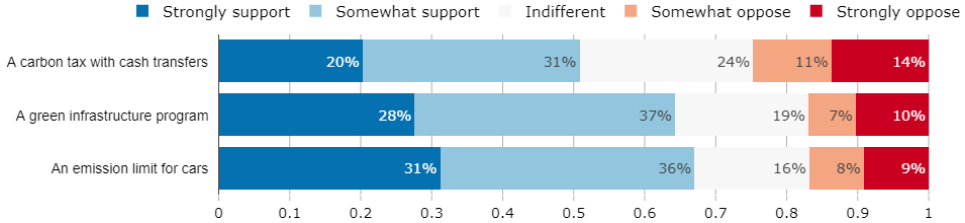
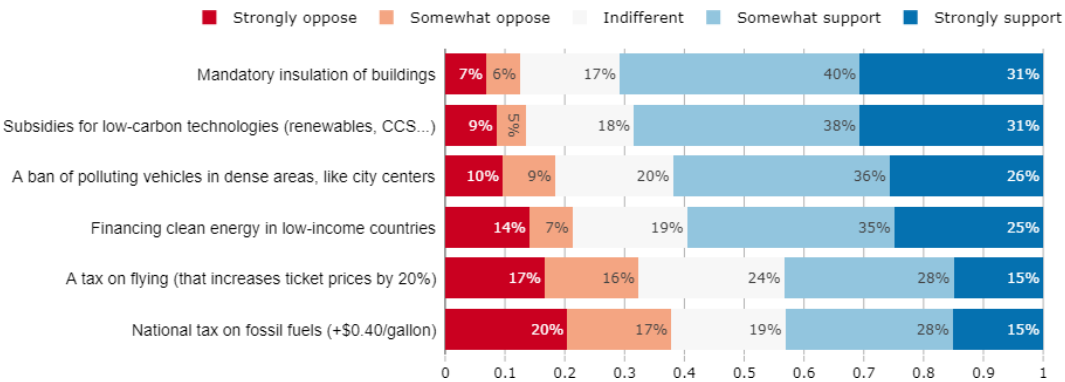


Figure: Support of policies



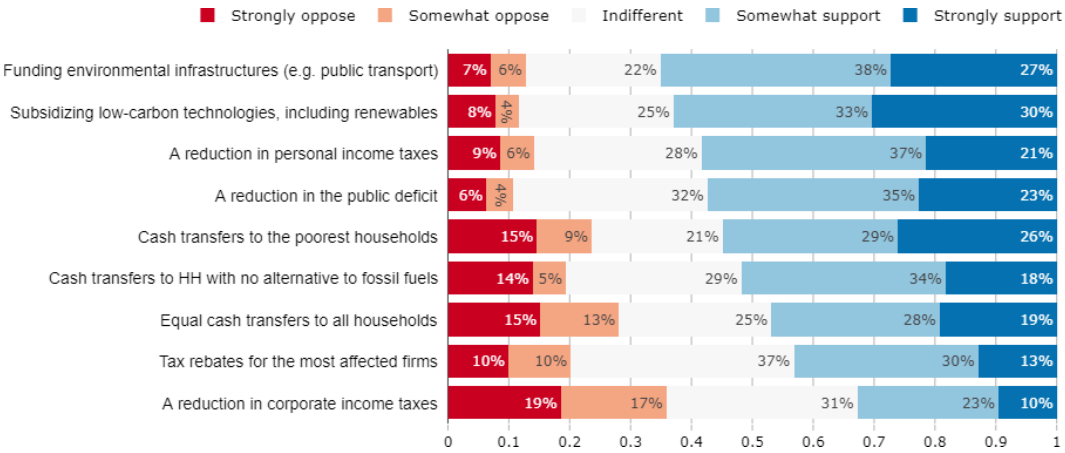
Other policies

Figure: Do you support or oppose the following climate policies?



Revenue recycling of carbon tax

Figure: In favor of carbon tax, if revenues used to...



Insulation

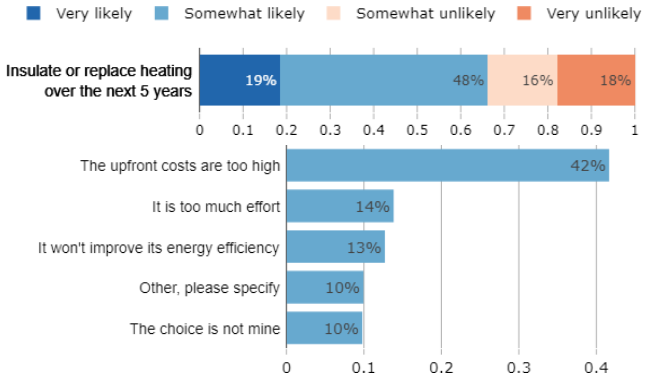
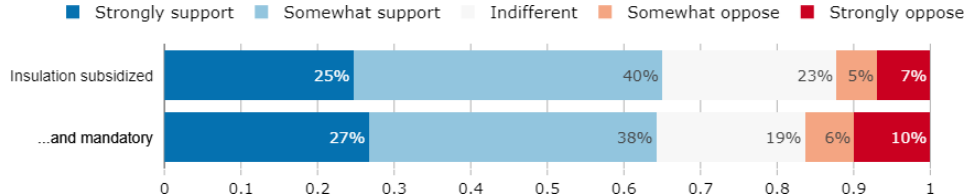
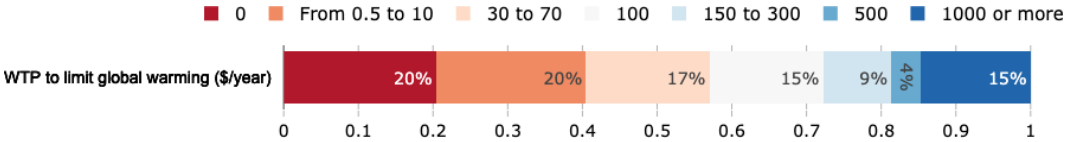
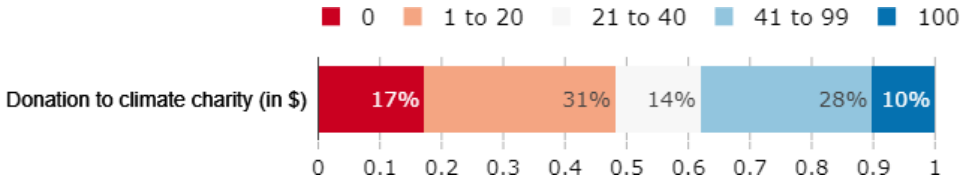


Figure: Main obstacles



WTP

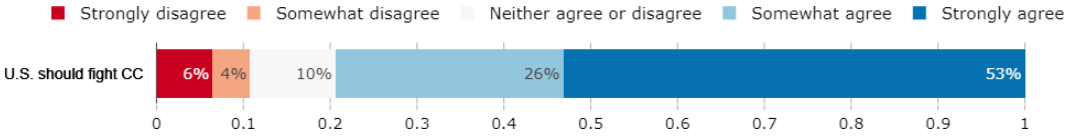

0
From 0.5 to 10
30 to 70
100
150 to 300
500
1000 or more
WTP to limit global warming ($/year)
20%
20%
17%
15%
9%
4%
15%
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

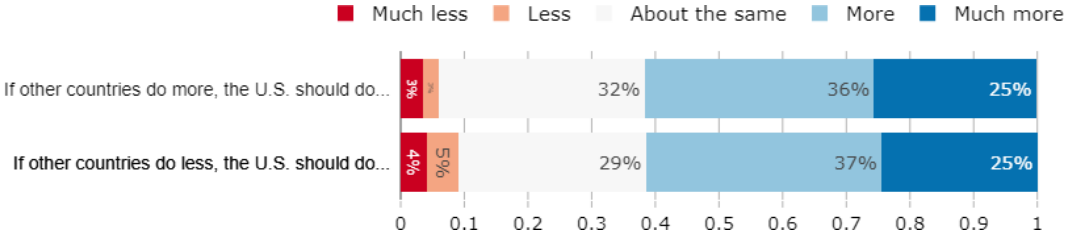

0
1 to 20
21 to 40
41 to 99
100
Donation to climate charity (in $)
17%
31%
14%
28%
10%
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

Policy attitudes: summary

- Each specific policy proposed gathers a majority, the most favored being an emission limit for cars.
- People are divided regarding the properties of these policies, although most think than a green infrastructure program and an emission limit for cars would be cost-effective to fight CC.
- A majority supports each climate policy proposed except tax policies but including coercive measures such as mandatory insulation of buildings.
- The results regarding taxes go in the other direction than the first two pilots (maybe because of the more accurate level of taxes mentioned).
- Earmarking carbon tax revenues to green investments is the preferred option while uses of revenue for firms are the least favored.
- WTP to halt climate change is higher in this pilot (median at \$50/year) than in previous waves \$18/year, but is still low.
- However the median amount people are willing to donate to a charity is \$21 (over a potential gain of \$100).
- Most people are willing to insulate or replace heating of their accommodation, the cost of doing so is the bigger obstacle.

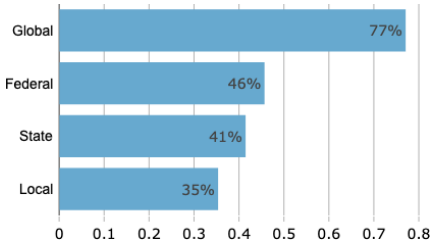
US climate policy

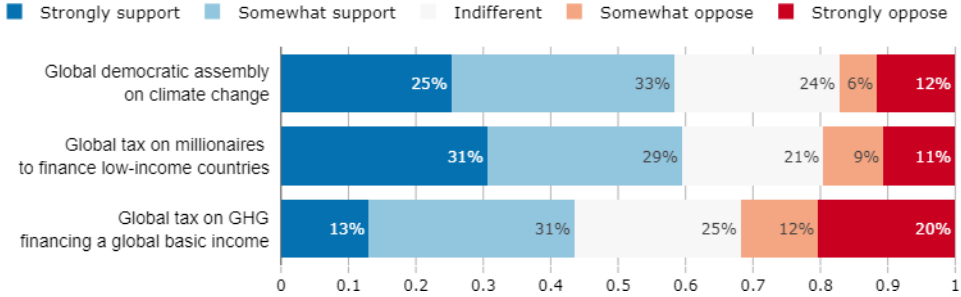




Global policies

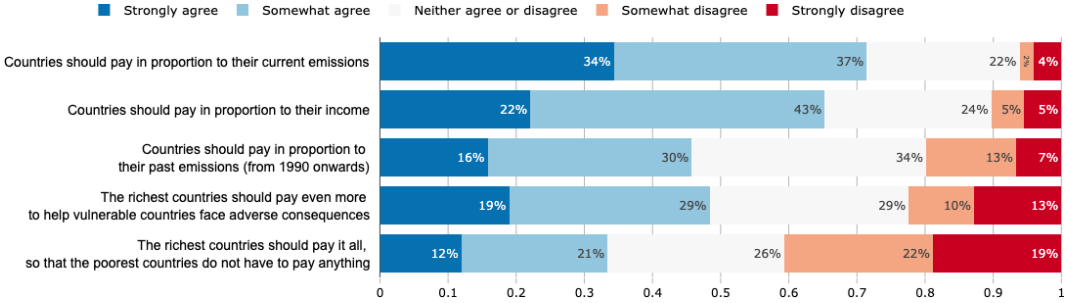
Figure: At which level(s) climate policies are needed?





Burden sharing

Figure: How should countries bear the costs of fighting climate change?



Burden sharing: summary

- Majorities think that the U.S. should do more whether other countries do more or less.
- The favored burden sharing is the polluter-pays principle, although principles attributing a higher burden on high-income countries receive a relative majority support.
- A solid majority supports global policies, in particular a global democratic assembly on CC, and a global tax on millionaires to finance low-income countries that comply with international standards regarding climate action.

Table: Attitudes towards Climate Change

	CC caused by humans	CC likely to cause extinction	Donation (in $)	Ambitious policies needed	Willing to limit driving
Control group mean	0.634	0.494	40.335	0.554	0.296
Treatment: Climate	0.117**	0.123**	−1.704	0.050	0.067
	(0.047)	(0.053)	(3.432)	(0.052)	(0.052)
Treatment: Policy	0.055	0.128**	−3.017	0.062	0.079
	(0.046)	(0.051)	(3.331)	(0.051)	(0.051)
Treatment: Both	0.122**	0.203***	0.506	−0.008	0.164***
	(0.053)	(0.059)	(3.846)	(0.059)	(0.059)
Observations	576	577	577	577	577

Note: The *CC caused by humans* indicator variable equals one if the respondent thinks a lot or most of climate change is due to human actions. The *CC likely to cause extinction* indicator variable equals one if the respondent thinks climate change is somewhat likely or very likely to cause the extinction of humankind if nothing is done to limit it. The *Donation* variable is a continuous variable equal to the amount the respondent is willing to give to a charity. The *Ambitious policies needed* indicator variable equals one if the respondent thinks policy must be a lot or a great deal ambitious in order to halt climate change. The *Willing to limit driving* indicator variable equals one if the respondent is willing a lot or a great deal to limit driving. The three *treatment* indicator variables indicate difference in mean compared to the control group (people who did not see any video). Controls include socio-demographic, economic affiliation, last vote and whether the respondent's household was hit by the COVID-19 pandemic. Standard errors are in parentheses.

*p<0.1; **p<0.05; ***p<0.01

Table: Support policies

	Support			
	Carbon tax with transfers	Green Infrastructure Program	Emission standard for cars	Average over 3 policies
Control group mean	0.501	0.666	0.708	0.709
Treatment: Climate	−0.021	0.038	−0.005	0.010
	(0.049)	(0.046)	(0.047)	(0.044)
Treatment: Policy	0.144***	0.052	0.032	0.048
	(0.048)	(0.044)	(0.046)	(0.042)
Treatment: Both	0.131**	0.013	0.016	0.060
	(0.055)	(0.051)	(0.053)	(0.049)
Observations	577	577	577	577

Note: The dependent variables are indicator variables equal to one if the respondent 'Strongly supports" or "Somewhat supports" the policy. The *Average over 3 policies* takes the average of the respondent's answers for the three policies. It equals one if the respondent support all three policies, $2/3$ if she supports two, $1/3$ if she support only one, and 0 if she supports none. See notes under previous Table for a description of the covariates.

Controls include socio-demographic, economic affiliation, last vote and whether the respondent's household was hit by the COVID-19 pandemic. Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01

Table: Attitudes towards policies

	Fair	HH would win	Poor would win	Large economic effect	Negative economic effect
Control group mean	0.608	0.429	0.368	0.764	0.426
Treatment: Climate	0.065	0.055	0.030	−0.041	−0.017
	(0.048)	(0.052)	(0.053)	(0.048)	(0.054)
Treatment: Policy	0.079*	0.023	0.163***	0.062	−0.063
	(0.046)	(0.051)	(0.052)	(0.047)	(0.052)
Treatment: Both	0.104*	0.103*	0.271***	0.090*	−0.067
	(0.053)	(0.058)	(0.060)	(0.054)	(0.061)
Observations	577	556	575	577	577

Note: The dependent variables are discrete variables equal either to 0, $1/3$, $2/3$, or 1. They are equal to the average over the three policies mentioned in Table "Support policies". The *Fair* variable equals one if the respondent strongly agrees or somewhat agrees that each of the three policies are fair. The *HH/Poor would win* variables equal one if the respondent thinks her household/the poorest would win a lot or mostly win from the three policies. The *Large/Negative economic effect* variables equal one if the respondent strongly agrees or somewhat agrees that the three policies would have a large/negative impact on the U.S. economy and employment.

Controls include socio-demographic, economic affiliation, last vote and whether the respondent's household was hit by the COVID-19 pandemic.

Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01

Treatment effects: summary

- When the treatments have some positive effects on general attitudes towards CC.
- In particular, all treatments are associated with the belief that CC can cause the extinction of human kind.
- The Climate treatment has a positive effect on belief that CC is anthropogenic.
- The Policy treatment has a positive effect on support for a carbon tax with transfers, which can be linked to its effect on fairness and incidence on poor for this policy.