Supplemental Text for
Shared vision for a decarbonized future energy system in the United States

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1. Demographic and Constructed Variable Distributions

Table S1 reports the distribution of participants for political ideological group, gender, and educational attainment. Participants in the current sample skew liberal and educated. There are approximately equal number of male and female participants in our sample.

Table S1. Participant percent distribution for categorical demographic variables.

Political Ideology	%	Gender	%	Education	%
Conservative	29.1 %	Male	50.5 %	Some high school	0.4 %
Moderate	20.3 %	Female	49.2 %	HS diploma / GED	10.9 %
Liberal	50.6 %	Other	0.3 %	Some college	27.0 %
				College degree	43.9 %
				Some graduate school	4.0 %
				Graduate degree	13.8 %

Table S2 reports the number of participants who identify as Democrat, Independent, and Republican by their political ideology. Not surprisingly, participants who identify as Democrat generally identified as liberal and participants who identified as Republican typically identified as conservative. Independents identified primarily as moderates.

Table S2. Number of participants for political ideology by political party affiliation.

	Democrat	Independent	Republican
Very Liberal	274	54	4
Liberal	481	90	5
Slightly Liberal	208	108	4
Moderate	90	358	46
Slightly Conservative	26	84	162
Conservative	24	42	256
Very Conservative	7	9	97

Table S3 includes descriptive statistics for all the constructed variables and socio-demographic variables used in the regression.

Table S3. Descriptive statistics for demographic and constructed variables.

Variable	Mean	Median	Scale	Range	St. error	Skew
Age (in years)	36.9	34.0	18 – 84	18 – 84	0.24	1.0
Income (in 1000 U.S. dollars)	61.2	50.0	0 – 1000	0 – 1000	1.13	6.3
Climate change belief	3.6	4	1 – 4	1 – 4	0.01	-1.8
Climate change importance	3.3	4	1 – 4	1 – 4	0.02	-1.1
Climate change attitude	3.4	3.5	1 – 4	1 – 4	0.02	-1.4
Relative climate change importance	-0.03	0	-3 – 3	-3 – 3	0.02	-0.8
Decarbonization score	42.3	45.0	-100 – 100	-45 – 100	0.48	-0.5
Decarbonization policy support	3.8	3.8	1 – 5	1 – 5	0.01	-0.4

2. Energy Mix Estimates

Percentage estimates for the energy mix of the United states were obtained from the Monthly Energy Review from the United States Energy Information Administration[1] (EIA, 2019). Table 1.3 of the Energy Review lists primary energy consumption by energy source in quadrillion Btu for every month from 1950 until July of 2019 consumed by transportation, commercial, electric power, industrial, and residential sectors. Energy mix estimates are based on data for 2018 because that is the latest full year of energy consumption data.

The energy mix percentages were calculated by taking the total energy consumed in quadrillion Btu for each energy source for all sectors and dividing it by the total energy consumed in 2018 in quadrillion Btu.

Table S4. Primary energy consumption in 2018 of each energy source

Energy Source	Consumption (quadrillion Btu)	Percentage of Total
Coal	13.238	13.11
Natural gas	30.884	30.59
Oil/Petroleum	36.882	36.53
Nuclear	8.441	8.36
Hydro	2.688	2.66
Geothermal	0.218	0.22
Solar	0.951	0.94
Wind	2.533	2.51
Biomass	5.132	5.08

[1] Monthly Energy Review - August 2019. United States Energy Information Administration (EIA). Retrieved from: https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf

Table S5 reports the breakdown by for current energy mix estimates and future energy mix preferences by political ideology in comparison to the actual energy mix.

Table S5. Participants' mean estimates for the current and 2050 energy mix percentages by energy source and political ideology compared to Actual U.S. energy consumption percentage.

Energy Source	Actual Mix	All Participants		Liberal		Moderate		Conservative	
		Current	Future	Current	Future	Current	Future	Current	Future
Oil	36.5	22.9	4.9	24.2	3.5	22.3	4.8	21.2	7.4
Natural gas	30.6	17.6	7.8	17.5	6.2	17.3	7.9	18.0	10.5
Coal	13.1	17.8	3.3	17.8	2.1	17.6	3.3	17.7	5.5
Nuclear	8.4	11.0	9.2	10.6	8.8	11.6	8.3	11.3	10.7
Biomass	5.1	4.1	6.2	4.1	6.2	4.4	6.6	4.4	6.0
Hydro	2.7	8.1	12.3	7.9	12.3	7.8	12.6	8.7	12.1
Wind	2.5	6.5	19.1	6.4	21.0	7.0	18.5	6.4	16.0
Solar	0.9	7.5	28.7	7.3	31.3	7.7	29.3	7.7	23.6
Geothermal	0.2	4.3	8.4	4.2	8.5	4.2	8.7	4.6	8.0

Table S6 presents the 95% confidence interval for participants' current energy mix estimates separated by political ideology. The actual contribution for each energy source does not fall within the confidence intervals.

Table S6. 95% confidence interval for current energy mix estimates by political ideology compared to the actual contribution.

Energy Source	Actual Contribution	95% Confidence Interval		
		Conservative	Moderate	Liberal
Oil	36.5 %	20.29 – 22.11	21.07 – 23.51	23.42 – 24.92
Natural gas	30.6 %	17.23 – 18.85	16.37 – 18.33	16.99 – 18.09
Coal	13.1 %	16.97 – 18.62	16.45 – 18.67	17.17 – 18.51
Nuclear	8.4 %	10.71 – 11.93	10.66 – 12.64	10.13 – 11.04
Biomass	5.1 %	4.10 – 4.70	4.03 – 4.77	3.89 – 4.29
Hydroelectricity	2.7 %	8.16 – 9.22	7.27 – 8.40	7.51 – 8.25
Wind	2.5 %	6.00 – 6.70	6.46 – 7.50	6.13 – 6.62
Solar	0.9 %	7.22 – 8.10	7.26 – 8.17	7.08 – 7.61
Geothermal	0.2 %	4.28 – 4.90	3.88 – 4.60	3.95 – 4.40

The mean difference between future energy estimates and current energy estimates are presented in Table S7 for each energy source. Differences are calculated for the entire sample and broken down by political ideological group differences.

Table S7. Current energy estimate subtracted from future energy estimate for all nine energy sources for the entire sample and by political ideology.

Energy Source	Average difference	Conservative	Moderate	Liberal
Oil	-18.01	-13.79	-17.45	-20.68
Natural gas	-9.83	-7.53	-9.44	-11.30
Coal	-14.42	-12.25	-14.27	-15.72
Nuclear	-1.77	-0.58	-3.36	-1.82
Biomass	1.96	1.63	2.17	2.06
Hydroelectricity	4.23	3.46	4.78	4.45
Wind	12.57	9.69	11.50	14.66
Solar	21.15	15.92	21.59	23.98
Geothermal	4.12	3.44	4.47	4.37

Analysis for differences in future energy mix by ideology

Political ideological differences are present for the future energy mix preferences for coal ($F = 86.09$, $p < 0.001$), natural gas ($F = 47.08$, $p < 0.001$), oil ($F = 74.63$, $p < 0.001$), nuclear ($F = 6.33$, $p < 0.01$), solar ($F = 47.26$, $p < 0.001$), and wind ($F = 49.16$, $p < 0.001$) and are statistically significant after a Bonferroni correction of 0.05/9 = 0.0056. Differences between political ideological groups were explored using a student's t-test and adjusting for multiple comparisons using a Bonferroni corrected alpha of 0.05/27 = 0.00185. Conservative participants prefer a higher percentage of oil than moderate participants (7.4% versus 4.8%, $t = 5.77$, $p < 0.01$) and liberal participants (7.4% versus 3.5%, $t = 11.00$, $p < 0.001$). Moderates estimate a slightly higher contribution of oil than liberals (4.8% versus 3.5%, $t = -3.86$, $p < 0.001$). Similarly, conservatives estimate a larger contribution of natural gas than moderates (10.5% versus 7.9%, $t = 4.45$, $p < 0.001$) and liberals (10.5% versus 6.2%, $t = 9.40$, $p < 0.001$). Moderates describe a larger contribution of natural gas compared to liberals (7.9% versus 6.2%, $t = 3.32$, $p < 0.001$). Finally, conservatives indicate a larger contribution of coal than moderates (5.5% versus 3.3%, $t = 6.24$, $p < 0.001$) and liberals (5.5% versus 2.1%, $t = 11.35$, $p < 0.001$), and moderates report a greater contribution than liberals (3.3% versus 2.1%, $t = 4.54$, $p < 0.001$). After controlling for multiple comparisons, there was not a significant difference between political ideological groups for nuclear energy (conservatives 10.7%, moderates 8.3%, and liberals 8.8%).

Conversely, liberals and moderates report a significantly higher contribution of renewable energy resources for their 2050 energy mix compared to conservatives. Liberals indicate a larger contribution of solar energy than conservatives (31.3% versus 23.6%, $t = 9.85$, $p < 0.001$). Similarly, moderates estimate a larger percentage for solar than conservatives (29.3% versus 23.6%, $t = 5.47$, $p < 0.001$). There was no significant difference for future solar estimates between liberals and moderates (31.3% versus 29.3%, $t = 2.12$, $p = 0.034$). Liberals report a significantly greater percentage of wind energy as compared to conservatives (21% versus 16%, $t = 9.90$, $p < 0.001$), as do moderates compared to conservatives (18.5% versus 16%, $t = 3.87$, $p < 0.001$). Liberals indicate a slightly larger contribution of wind compared to moderates (21% versus 18.5%, $t = 4.41$, $p < 0.001$). There is no significant difference between political ideological groups for biomass, geothermal, or hydroelectricity. Note, although many of these differences are statistically significant, these differences are mostly small except for solar energy.

3. Energy Policy support

Table S8 shows the mean policy support scored 1 (strongly oppose) to 5 (strongly support) for each energy policy by political ideological group.

Table S8. Mean policy support by political ideology. Standard errors are indicated in parentheses.

Policy	Liberal	Moderate	Conservative
Carbon Tax	4.0 (0.03)	3.4 (0.05)	3.0 (0.05)
Fund research into battery and energy storage technology	4.4 (0.02)	4.1 (0.04)	3.8 (0.04)
Fund development of renewable energy resources	4.6 (0.02)	4.2 (0.04)	3.8 (0.04)
Halt construction of pipelines that transport oil	3.9 (0.03)	3.3 (0.05)	2.7 (0.04)
Subsidize electric cars	4.3 (0.02)	3.8 (0.05)	3.4 (0.04)
Construct new nuclear power plants to replace coal	3.2 (0.04)	3.1 (0.05)	3.3 (0.05)
Decrease subsidies for renewable energy	2.1 (0.04)	2.5 (0.06)	2.9 (0.05)

technologies			
Relax environmental regulations on oil and natural gas drilling	1.6 (0.03)	2.1 (0.05)	2.9 (0.05)
Place tariffs on imported solar panels	1.8 (0.03)	2.1 (0.05)	2.6 (0.05)
Invest in coal fired power plants	1.7 (0.03)	2.2 (0.05)	2.8 (0.04)
Construct/complete pipelines to transport oil	1.9 (0.03)	2.6 (0.05)	3.3 (0.04)
Lower fuel economy standards	1.7 (0.03)	2.2 (0.05)	2.5 (0.04)

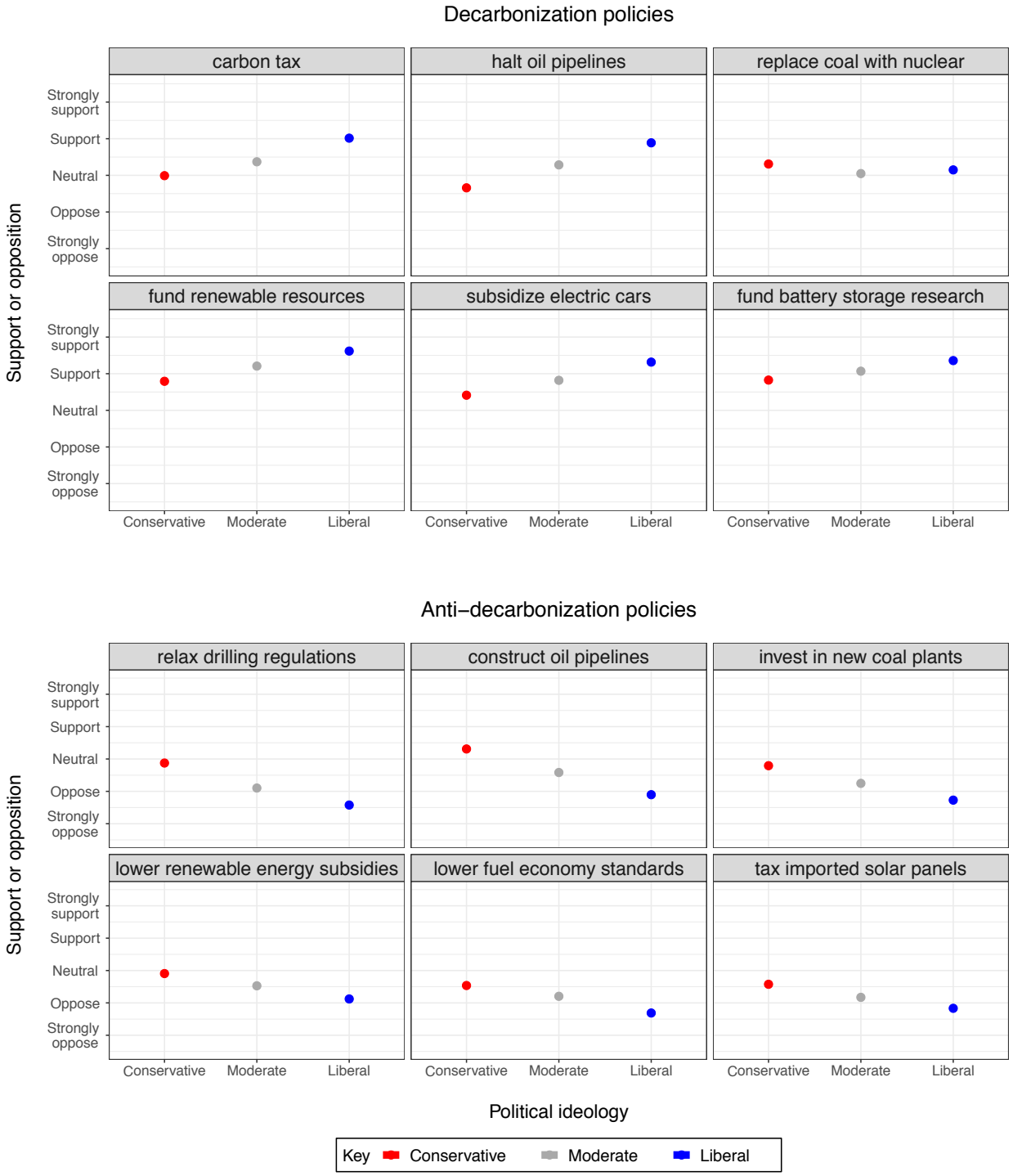

Figure S1. Mean policy support for each political ideological group for the 12 energy policies. This is a simplified version of Figure 2 in the manuscript. 95% CI are no bigger than the data markers.

4. Climate Change Issue Importance Political Ideological Differences

Political ideological differences are present for the importance of climate change for the U.S. today ($F = 392.9$, $p < 0.001$), the world today ($F = 371.6$, $p < 0.001$), the U.S. in the future ($F = 410.7$, $p < 0.001$), and the world in the future ($F = 369.9$, $p < 0.001$).

Differences between political ideological groups were explored using a student's *t-test* controlling for multiple comparisons using a Bonferroni corrected alpha of 0.05/12 = 0.004. For the U.S. today, liberal participants rate climate change as more important compared to moderates (3.7 versus 3.2, $t = 10.56$, $p < 0.001$) and conservatives (3.7 versus 2.6, $t = 25.06$, $p < 0.001$). Moderate participants rate climate change as more important than conservatives (3.2 versus 2.6, $t = 10.88$, $p < 0.001$).

For the world today, liberals rate climate change as more important compared to moderates (3.8 versus 3.4, $t = 9.71$, $p < 0.001$) and conservatives (3.8 versus 2.7, $t = 23.74$, $p < 0.001$). Moderates report climate change as more important compared to conservatives (3.4 versus 2.7, $t = 11.11$, $p < 0.001$).

For the U.S. in the future, liberals report climate change as more important than do moderates (3.8 versus 3.4, $t = 9.69$, $p < 0.001$) and conservatives (3.8 versus 2.8, $t = 24.88$, $p < 0.001$). Moderates report climate change as more important than do conservative participants (3.2 versus 2.8, $t = 11.61$, $p < 0.001$).

Finally, for the world in the future, liberals rate climate change as more important than do moderates (3.8 versus 3.5, $t = 9.62$, $p < 0.001$) or conservatives (3.8 versus 2.9, $t = 23.10$, $p < 0.001$). Moderates rate climate change as more important for the world in the future than do conservatives (3.5 versus 2.9, $t = 10.85$, $p < 0.001$).

5. Linear Regression Diagnostics

The regression model was evaluated for assumption violations. A scatter plot of fitted values against standardized residuals indicated that the data contained approximately normally distributed errors. The skew (-0.21) and kurtosis (0.17) of the residuals further signaled the assumption of normality was satisfied. The scatterplot of standardized residuals showed that the data met the assumptions of homogeneity of variance and linearity, and the assumption of independent errors was also satisfied (Durbin-Watson value = 2.002). Multicollinearity was not observed in the model as the variance inflation factor (VIF) for all variables in the model was below 2.5.

Outliers in the data were the only potential assumption violation for the regression model. Univariate outliers were investigated using box plots for all variables in the model. For all variables except income, no data point was greater than 4 standard deviations away from the mean. Income contained values that were greater than 15 standard deviations from the mean. To control for these outliers, income was log transformed and the full model was run using the log of income. The results were

consistent across both models suggesting that the model is robust against the outliers for the income variable and the original model with income as measured in 1000 U.S. dollars is reported for ease of interpretation.

6. Decarbonization Policy Support

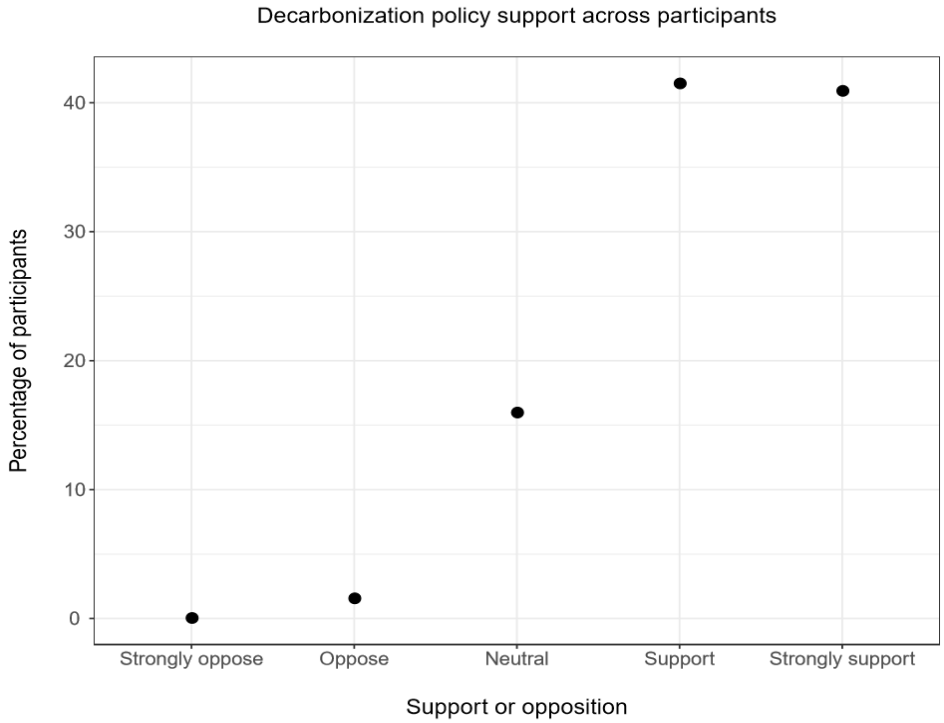

Figure S2. Percentage of participants for each level of decarbonization policy support.

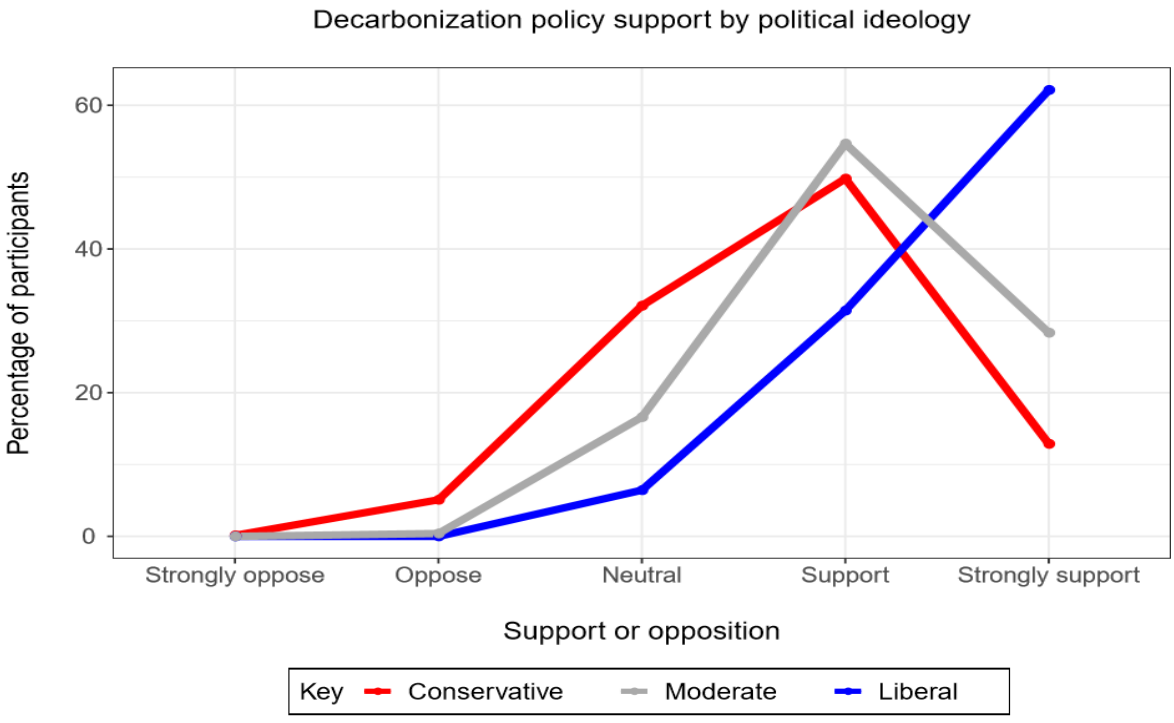

Figure S3. Percentage of participants for each level of decarbonization policy support divided into political ideological groups.

7. Linear regression results with and without nuclear energy

Table S9 reports two regression models predicting decarbonization policy support. Model 1 is the model reported in the paper in which nuclear energy is included in the decarbonization score. Model 2 excludes nuclear energy from the decarbonization score and instead only uses renewable energy resources. The renewable score is the sum of future renewable resource estimates minus the sum of current renewable resource estimates. Results are consistent across both models suggesting that nuclear does need not be excluded in calculating the decarbonization score.

Table S9. Multivariate regression results predicting decarbonization policy support. (***p < 0.001, **p < 0.01, *p < 0.05)

Variable	Scale of Variable	Decarbonization Policy Support	
		Model 1 With nuclear	Model 2 Without nuclear
Intercept		2.707*** (0.093)	2.805*** (0.094)
Decarbonization Score (includes nuclear)	-100 – 100 % points	0.010*** (0.000)	
Renewable Score (excludes nuclear)	-100 – 100 % points		0.008*** (0.000)
Political Ideology	1 – 7 (very liberal to very conservative)	-0.099*** (0.007)	-0.105*** (0.007)
Male	1 = male 0 = female or other	0.055** (0.019)	0.087*** (0.020)
Education	1 – 6 scale	0.009 (0.009)	0.013 (0.009)
Age	18 – 84 years	0.003*** (0.008)	0.003** (0.001)
Income	0 – 1000 (in thousands)	0.0004* (0.000)	0.0004* (0.000)
Climate Change Attitude	1 – 4 scale	0.237*** (0.019)	0.228*** (0.020)
Relative Climate Change Importance	-3 - 3 scale	0.161*** (0.014)	0.164*** (0.014)
Adjusted R-squared		0.569	0.548

8. Weighting by Political Ideology

Population estimates for political ideology were obtained from the U.S. General Social Survey[2] (GSS) to create weights. Table S10 provides the distribution of political ideology for the current sample and the population. Post-stratification weights for each participant were created via the "*survey"* package in R, and the weights are provided in Table S10. Both the weighted and unweighted linear regression models are presented in Table S11, and results are consistent between weighted and unweighted models.

Table S10. Distribution of political ideology for the current sample compared to the population and post-stratification weights

Political Ideology	General Social Survey	Current Sample	Weights used in new model
Very conservative	4.4 %	4.7 %	0.94
Conservative	15.8 %	13.3 %	1.19
Slightly conservative	12.6 %	11.2 %	1.12
Moderate	38.1 %	20.3 %	1.87
Slightly liberal	11.4 %	13.2 %	0.86
Liberal	12.4 %	23.7 %	0.52
Very liberal	5.4 %	13.7 %	0.39

[2] Smith, Tom W., Davern, Michael, Freese, Jeremy, and Morgan, Stephen, General Social Surveys, 1972-2018. Data accessed from the GSS Data Explorer website at **gssdataexplorer.norc.org**.

Table S11. Unweighted and weighted regression model results. Participants were weighted on political ideology (***$p < 0.001$, **$p < 0.01$, *$p < 0.05$).

Variable	Scale of Variable	Decarbonization Policy Support	
		Unweighted	Weighted
Intercept		2.707*** (0.093)	2.722*** (0.092)
Decarbonization Score (includes nuclear)	-100 – 100 % points	0.010*** (0.000)	0.009*** (0.000)
Political Ideology	1 – 7 (very liberal to very conservative)	-0.099*** (0.007)	-0.099*** (0.007)
Male	1 = male 0 = female or other	0.055** (0.019)	0.048* (0.020)
Education	1 – 6 scale	0.009 (0.009)	0.017 (0.009)
Age	18 – 84 years	0.003*** (0.008)	0.002** (0.001)
Income	0 – 1000 (in thousands)	0.0004* (0.000)	0.0005** (0.000)
Climate change belief	1 – 4 scale	0.237*** (0.019)	0.231*** (0.018)
Relative climate change importance	-3 - 3 scale	0.161*** (0.014)	0.160*** (0.013)
Adjusted R-squared		0.569	0.536
***$p < 0.001$, **$p < 0.01$, *$p < 0.05$			

9. Individual Policy Linear Regression Models

Linear regression analyses were conducted for all 12 energy policies measured on a scale from 1 (strongly oppose) to 5 (strongly support). Table S12 reports the linear regression results for the six decarbonization policies, and Table S13 presents linear regression results for the six anti-decarbonization policies.

Results were generally consistent across models and with the full model in the main text. The decarbonization score is positively associated with support for decarbonization policies and negatively associated with support for anti-decarbonization policies. Political ideology, measured from 1 (very liberal) to 7 (very conservative), has a negative relationship to support for decarbonization policies and a positive relationship with anti-decarbonization policies.

Climate change belief and relative climate change importance are positively associated with support for decarbonization policies, except for funding battery technology which was negative but not significant for climate change importance. Further, these climate change variables show a negative relationship to support for anti-decarbonization policies, with the exception tariffs on solar panels which was positive but not significant for climate change belief. Gender, income, and age were not consistent across models.

Table S12. Linear regression for policy support for six decarbonization policies (***p < 0.001, **p < 0.01, *p < 0.05)

	Carbon tax	Replacing coal with nuclear	Fund renewable resources	Fund battery technology	Halt oil pipelines	Subsidize electric cars
Intercept	1.627*** (0.193)	2.885*** (0.240)	2.619*** (0.160)	2.642*** (0.163)	2.338*** (0.202)	2.401*** (0.179)
Decarbonization score	0.002 (0.001)	0.001 (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.005*** (0.001)	0.005*** (0.001)
Political ideology	-0.081*** (0.014)	0.051** (0.017)	-0.064*** (0.011)	-0.046*** (0.012)	-0.139*** (0.014)	-0.066*** (0.013)
Male	-0.033 (0.040)	0.444*** (0.050)	-0.088** (0.032)	0.177*** (0.034)	-0.054 (0.042)	-0.016 (0.037)
Income	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.001 (0.000)	0.000 (0.000)
Age	0.002 (0.002)	-0.012*** (0.002)	0.002 (0.001)	0.002 (0.001)	-0.001 (0.002)	-0.002 (0.002)
Education	0.040* (0.018)	0.060** (0.022)	0.023 (0.014)	0.023 (0.015)	0.036 (0.019)	-0.008 (0.017)
Climate change belief	0.584*** (0.040)	0.020 (0.050)	0.439*** (0.033)	0.325*** (0.034)	0.387*** (0.042)	0.482*** (0.038)
Relative climate change importance	0.191*** (0.029)	0.039 (0.036)	0.091*** (0.024)	-0.007 (025)	0.261*** (0.030)	0.127*** (0.027)
Adjusted R^2	0.334	0.052	0.312	0.165	0.334	0.289

Table 13. Linear regression for policy support for six anti-decarbonization policies (***$p < 0.001$, **$p < 0.01$, *$p < 0.05$)

	Invest in coal	Lower fuel economy standards	Lower subsidies for renewables	Construct oil pipelines	Tariffs on solar panels	Relax oil and gas regulations
Intercept	3.245*** (0.186)	2.976*** (0.205)	3.273*** (0.254)	2.907*** (0.191	2.468*** (0.203)	3.165*** (0.190)
Decarbonization score	-0.017*** (0.001)	-0.018*** (0.001)	-0.009*** (0.001)	-0.016*** (0.001)	-0.014*** (0.001)	-0.016*** (0.001)
Political ideology	0.144*** (0.013)	0.126*** (0.015)	0.110*** (0.018)	0.196*** (0.014)	0.112*** (0.015)	0.161*** (0.014)
Male	-0.149*** (0.039)	-0.037 (0.043)	-0.056 (0.053)	0.090* (0.040)	-0.101* (0.042)	0.023 (0.039)
Income	-0.001* (0.000)	-0.000 (0.000)	-0.002*** (0.000)	-0.000 (0.000)	-0.001*** (0.000)	-0.001* (0.000)
Age	-0.010*** (0.002)	-0.012*** (0.002)	-0.012*** (0.002)	-0.001 (0.002)	-0.005** (0.002)	-0.007*** (0.002)
Education	-0.009 (0.017)	0.008 (0.019)	0.016 (0.023)	0.018 (0.018)	0.024 (0.019)	0.015 (0.018)
Climate change belief	-0.113** (0.039)	-0.043 (0.043)	-0.093 (0.053)	-0.165*** (0.040)	0.017 (0.043)	-0.210*** (0.040)
Relative climate change importance	-0.231*** (0.028)	-0.142*** (0.031)	-0.199*** (0.038)	-0.272*** (0.029)	-0.141*** (0.031)	-0.244*** (0.029)
Adjusted R^2	0.353	0.257	0.132	0.413	0.183	0.392

10. Mediation analysis

The mediation analysis procedure consisted of four steps. First, the decarbonization policy support score was regressed on the demographic and climate change variables. This provided the total effect calculation, and the coefficients are presented for Model 1 results in Table S14 below. Second, the relationship between the demographic and climate change variables with the mediating variable (the decarbonization score) was established by treating the decarbonization score as the predicted variable. Results of this analysis can be found under Model 2 in Table S14. Third, the direct effect was obtained by regressing decarbonization policy support on the demographic and climate change variables as well as the decarbonization score. The direct effect coefficients can be found in Model 3 in Table S14. Finally, the *"mediate"* package in R was used to obtain direct, indirect, and total effects and checked against the values obtained by manually conducting the regression models. Significance for the indirect effect was calculated using bootstrapping procedure; indirect effects were computed for each of 1,000 bootstrapped samples.

Figure S4 presents the mediation analysis for decarbonization score as the mediating variable with all demographic and climate change variables treated as predicting variables. Adjusted R-squared values are presented in place of beta values. Results show that the decarbonization score is partially mediating the effects of the demographic and climate change variables.

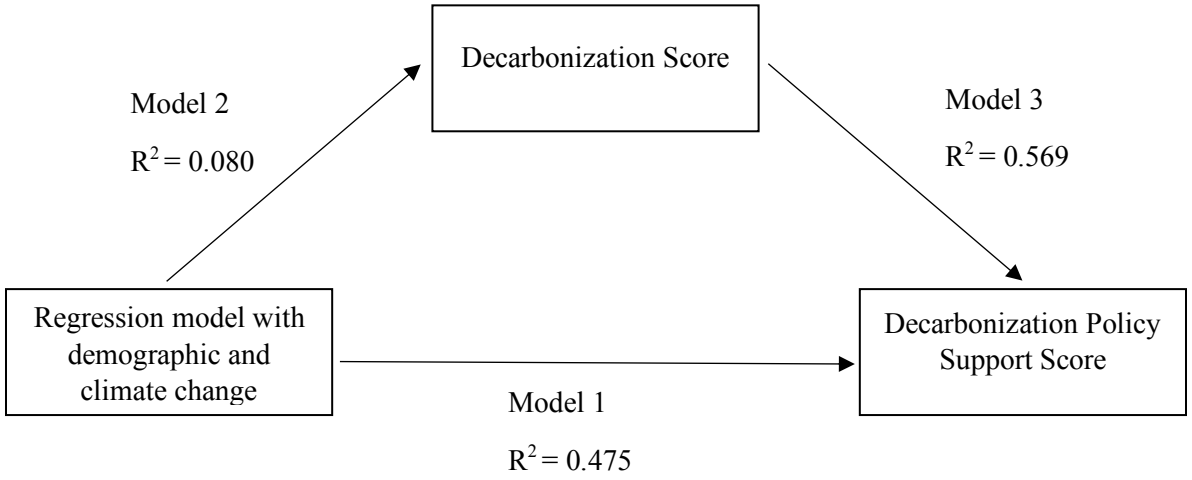

Figure S4. Mediation analysis treating the decarbonization score as the mediating variable and demographic and climate change variables as predictors of policy support. Model numbers correspond to the regression model results presented in Table 14.

The indirect effect for political ideology is -0.03 and is statistically significant ($p < 0.001$) suggesting there is partial mediation between the decarbonization score and political ideology; however, this effect is small. For relative climate change importance, the statistically significant indirect effect is 0.014 ($p < 0.05$), indicating climate change importance may be partially mediated by the decarbonization score but this effect is also small. The indirect effect for age is equal to 0.001 and is statistically significant ($p <$

0.05) suggesting partial mediation, however this effect is small as well. The indirect effects for male (0.008), income (0.0001), education (-0.005), and climate change belief (0.010) were not statistically significant ($p > 0.05$). Thus, while there is evidence that there is mediation between political ideology and climate change importance in particular to the decarbonization score, the effect of the demographic and climate change variables on the decarbonization score is not large (as shown by the adjusted R-squared which indicates that the demographic and climate change variables only explain roughly 8% of the variance in the decarbonizations score).

Table S14. Linear regression coefficients and standard errors for mediation analysis regression models *(***p < 0.001, **p < 0.01, *p < 0.05)*

	Model 1 Predicting Policy Support	Model 2 Predicting Decarbonization Score	Model 3 Predicting Policy Support
Intercept	3.159*** (0.010)	46.617*** (4.343)	2.707*** (0.093)
Decarbonization score			0.010*** (0..000)
Political ideology	-0.129*** (0.007)	-3.081*** (0.311)	-0.099*** (0.007)
Male	0.063** (0.021)	0.841 (0.921)	0.055** (0.019)
Income	0.0005* (0.000)	0.014 (0.008)	0.0004* (0.000)
Age	0.004*** (0.001)	0.105** (0.040)	0.003*** (0.001)
Education	0.003 (0.009)	-0.568 (0.411)	0.009 (0.009)
Climate change belief	0.247*** (0.021)	1.026 (0.935)	0.237*** (0.019)
Relative climate change importance	0.175*** (0.015)	1.498* (0.671)	0.161*** (0.014)
Adjusted R-squared	0.475	0.080	0.569

11. Survey Experimental Conditions

Participants were prompted to imagine and describe the life in the United States as it would exist 100 years in the future. Participants were randomly assigned to one of three conditions. In one condition, participants were asked to describe what the future would look like in the year 2119 if the current energy mix remained the same. In the second condition, participants were asked to describe the future if the United States transitioned to the energy mix the participant indicated was “ideal.” Finally, the control condition asked participants to describe the future in 2119, without referencing energy or the energy mix. We do not analyze these narratives here.

12. Survey Instrument

[Introduction]

By answering the following questions, you are participating in a study being performed by researchers at Indiana University Bloomington. Your participation in this research is voluntary and you may decline further participation, at anytime, without adverse consequences. Any information you provide will not be accessible to others, and your anonymity is assured.

Continuing to the next page will begin the study.

More detailed consent information is below:

Description: You are invited to participate in a research study by Indiana University Bloomington researchers. The purpose of the study is to better understand how information regarding other people's behaviors and the changing trends in others' behaviors informs or is used when considering others' and one's own attitudes or interest in related behaviors.

Time Involvement: Your participation will take approximately the amount of time advertised.

Risks and Benefits: There are no foreseeable risks or benefits for participation in this study (beyond your payment). We cannot and do not guarantee or promise that you will receive any additional benefits from this study.

Payments: You will receive the amount advertised on the HIT as payment for your participation.

Participant's Rights: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

Contact Information:
Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Protocol Director, Shahzeen Attari at sattari@indiana.edu.

Please continue to the next page to begin the study.

By checking the box below, I agree to participate in this study.

☐

[Page Break]

Introduction

We're interested in what people know about where energy comes from in the United States. In this study, we will ask you questions about different energy sources in the U.S. and the factors that determine what energy sources are used.

[Page Break]

Energy Mix Estimation – all participants are asked the following questions.

In the United States, when we talk about our energy needs, that includes energy used in all forms for all the following sectors: electric power, transportation, industrial, commercial, and residential. This energy comes from many different sources.

Coal is a combustible rock with large amounts of carbon, and is created over millions of years. Coal is burned to produce heat and electricity.

Natural gas is formed over millions of years and is comprised primarily of methane. Natural gas is burned to generate heat and electricity.

Nuclear energy comes from the process of nuclear fission. In this process, atoms are split apart, which creates energy through heat and radiation. Uranium is most commonly used in this process.

Oil is a fossil fuel made up of hydrocarbons, and is created over millions of years. Oil is used to create petroleum products such as gasoline, diesel fuel, and jet fuel.

Biomass is organic material from plants and animals that is burned to create energy or heat. Biomass includes energy sources such as wood, waste materials, landfill gas, and biofuels.

Geothermal energy comes from heat within the Earth produced by the decay of radioactive particles in the Earth's core. This heat is used for heating and electricity generation.

Hydroelectricity is produced by moving water. Electricity is generated when a flowing body of water, such as a river, turns a turbine. Water in a reservoir created by a dam can also be released as needed to generate electricity.

Solar energy can be used two ways. One method is using photovoltaic panels to convert sunlight into energy. Another method uses solar thermal energy to heat water or homes and can be used to generate electricity.

Wind is used to generate electricity using the kinetic energy collected by wind turbines. Wind turbines can be placed on land or off-shore in large bodies of water.

In the U.S., our energy comes from a mix of these sources. Some sources contribute a lot of energy and other sources contribute only a little. The breakdown of those contributions is referred to as the **"energy mix."**
What do you think is the ***current*** energy mix of the United States? In other words, what percent of the total energy consumption in the U.S. is supplied by each source ***today***?

Please enter whole numbers (no decimals, ranges, or percentages) with no other text (no spaces, punctuation, or words). For example, if you think one out of every four people owns a dog, you would respond 25.

[Energy sources appear in randomized order]

Energy Source	Percentage (%)
Oil	
Natural Gas	
Coal	
Nuclear	
Geothermal	
Solar	
Wind	
Biomass	
Hydroelectric	

[Page Break]

2. Now we're going to ask about your ***hopes*** for the ***future*** energy mix of the United States. What do you think would be the ***absolute best possible*** energy mix for the U.S. by the year ***2050***?

In other words, what percent of the total energy consumption in the U.S. do you ***hope*** is supplied by each source in the year 2050? If there are energy sources that you hope

will be part of the energy mix by the year 2050 that are not on the list provided, there is a place to fill in other energy sources.

Please enter whole numbers Please enter whole numbers (no decimals, ranges, or percentages) with no other text (no spaces, punctuation, or words). For example, if you think one out of every four people owns a dog, you would respond 25.

If you need a reminder, definitions for each energy source are repeated below. Once you have entered your responses, please scroll to the bottom of the page to continue.

[Energy sources appear in randomized order]

Energy Source	Percentage (%)
Oil	
Natural Gas	
Coal	
Nuclear	
Geothermal	
Solar	
Wind	
Biomass	
Hydroelectric	

Other Energy Source	Percentage (%)

[Page Break]

Future Imaginings: Participants are assigned into one of the three future imaginings experimental conditions at random followed by the rest of the survey

[Current energy mix future imagination] Now, imagine the United States one hundred years from now. In this imagined future, **it is 2119 and the world may have changed in various ways**. However, imagine that the current energy mix of the U.S.

has ***not*** changed. In this imagined future, it is 2119 and **we are using the same energy sources in the same proportion as we are using them today**.

Your task is to imagine what this future world might be like. For instance, imagine what everyday life might be like for you in that scenario. You should imagine that you are somehow still alive in one hundred years, and that you are basically the same person you are today (same age, living in the same geographic region, same wealth, etc.). Then describe what your life will be like. Are you happy or sad? What is your daily life like? Is it better or worse than it is today? Would you choose to live then or live now?

Please write as much as possible! You must write at least 100 characters — but the more you write, the better. **Unleash your imagination** and let us know, if the current energy mix remains unchanged, what you think your future life would be like!

[Open ended – required to type at least 100 characters]

[Best possible energy mix future imagination] Now, imagine the United States one hundred years from now. In this imagined future, **it is 2119 and the world may have changed in various ways**. However, imagine that the current energy mix of the U.S. **has changed to the** absolute best possible **energy mix** that you described on the previous page. In this imagined future, it is 2119 and **we are using energy sources in the way that you hoped**.

Your task is to imagine what this future world might be like. For instance, imagine what everyday life might be like for you in that scenario. You should imagine that you are somehow still alive in one hundred years, and that you are basically the same person you are today (same age, living in the same geographic region, same wealth, etc.). Then describe what your life will be like. Are you happy or sad? What is your daily life like? Is it better or worse than it is today? Would you choose to live then or live now?

Please write as much as possible! You must write at least 100 characters — but the more you write, the better. **Unleash your imagination** and let us know, if current energy mix remains unchanged, what you think your future life would be like!

[Open ended – required to type at least 100 characters]

[No energy mix future imagination] Now, imagine the United States one hundred years from now. In this imagined future, **it is 2119 and the world may have changed in various ways.**

Your task is to imagine what this future world might be like. For instance, imagine what everyday life might be like for you in that scenario. You should imagine that you are somehow still alive in one hundred years, and that you are basically the same person you are today (same age, living in the same geographic region, same wealth,

etc.). Then describe what your life will be like. Are you happy or sad? What is your daily life like? Is it better or worse than it is today? Would you choose to live then or live now?

Please write as much as possible! You must write at least 100 characters — but the more you write, the better. **Unleash your imagination** and let us know, in this imagined future, what you think your future life would be like!

[Open ended – required to type at least 100 characters]

[Page Break]

Issue Importance: all participants are asked the following questions.
How important do you think each issue is for the ***United States today***?

[Shown in random order]

	Not at all important	Slightly important	Moderately important	Extremely important
Economy and jobs	☐	☐	☐	☐
Climate change	☐	☐	☐	☐
Immigration	☐	☐	☐	☐
Access to quality health care	☐	☐	☐	☐

What do you think is the **most** important problem facing the **United States today**?

- ☐ Economy and jobs
- ☐ Climate change
- ☐ Immigration
- ☐ Access to quality healthcare

[Page Break]

How important do you think each issue is for the ***world today***?

	Not at all important	Slightly important	Moderately important	Extremely important
Economy and jobs	☐	☐	☐	☐
Climate change	☐	☐	☐	☐
Immigration	☐	☐	☐	☐

Access to quality health care	☐	☐	☐	☐

What do you think is the **most** important problem facing the **world today**?

- ☐ Economy and jobs
- ☐ Climate change
- ☐ Immigration
- ☐ Access to quality healthcare

[Page Break]

How important do you think each issue is for the ***United States* in the future**?

	Not at all important	**Slightly important**	**Moderately important**	**Extremely important**
Economy and jobs	☐	☐	☐	☐
Climate change	☐	☐	☐	☐
Immigration	☐	☐	☐	☐
Access to quality health care	☐	☐	☐	☐

What do you think is the **most** important problem facing the ***United States in the future***?

- ☐ Economy and jobs
- ☐ Climate change
- ☐ Immigration
- ☐ Access to quality healthcare

[Page Break]

How important do you think each issue is for the ***world in the future***?

	Not at all important	**Slightly important**	**Moderately important**	**Extremely important**
Economy and jobs	☐	☐	☐	☐
Climate change	☐	☐	☐	☐
Immigration	☐	☐	☐	☐

Access to quality health care	☐	☐	☐	☐

What do you think is the **most** important problem facing the ***world in the future***?

- ☐ Economy and jobs
- ☐ Climate change
- ☐ Immigration
- ☐ Access to quality healthcare

[Page Break]

Policy Support: all participants were asked the following questions. Shown in random order.

	Strongly Oppose	Oppose	Neutral	Support	Strongly Support
Construct new nuclear power plants to replace coal fired power plants.	☐	☐	☐	☐	☐
Lower the fuel-economy standards that automobile industries are required to meet.	☐	☐	☐	☐	☐
Tax carbon emissions using a rate that can be increased or decreased over time.	☐	☐	☐	☐	☐
Decrease federal subsides for wind, solar, and other renewable energy technologies so they can be market tested against traditional fossil fuels.	☐	☐	☐	☐	☐
Provide government funding for development of renewable energy sources.					
Construct and complete pipelines to transport oil across the United States.	☐	☐	☐	☐	☐
Subsidize the production of electric cars to replace gasoline burning vehicles.	☐	☐	☐	☐	☐
Place tariffs on imported solar panels.	☐	☐	☐	☐	☐
Halt construction of pipelines that transport oil across the United States.	☐	☐	☐	☐	☐

Relax environmental regulations on oil and natural gas drilling.	☐	☐	☐	☐	☐
Fund research into battery and energy storage technologies.	☐	☐	☐	☐	☐
Invest in coal fired power plants to use domestic coal reserves.	☐	☐	☐	☐	☐

[Page Break]

Behavioral intention: all participants were asked the following questions. Shown in random order.

[climate change]

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Volunteer your time to an organization working on climate change	☐	☐	☐	☐	☐
Donate money to an organization working on climate change.	☐	☐	☐	☐	☐
Write letters, email, or phone government officials to urge them to take action to reduce climate change.	☐	☐	☐	☐	☐

[access to quality health care]

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Volunteer your time to an organization working on improving access to quality health care.	☐	☐	☐	☐	☐
Donate money to an organization working on improving access to quality health care.	☐	☐	☐	☐	☐
Write letters, email, or phone government officials to urge them to take action to improve access to quality health care.	☐	☐	☐	☐	☐

[economy and jobs]

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely

Volunteer your time to an organization working on improving economic outcomes.	☐	☐	☐	☐	☐
Donate money to an organization working on improving economic outcomes.	☐	☐	☐	☐	☐
Write letters, email, or phone government officials to urge them to take action to improve economic outcomes.	☐	☐	☐	☐	☐

[immigration]

	Very Unlikely	**Unlikely**	**Neutral**	**Likely**	**Very Likely**
Volunteer your time to an organization working on immigration.	☐	☐	☐	☐	☐
Donate money to an organization working on immigration.	☐	☐	☐	☐	☐
Write letters, email, or phone government officials to urge them to take action on immigration.	☐	☐	☐	☐	☐

[Page Break]

Climate change attitude: all participants were asked the following questions.

Recently you may have noticed that climate change has been getting some attention in the news. Climate change refers to the idea that the world's average temperature has been increasing over the past 150 years, may be increasing more in the future, and that the world's climate may change as a result. What do you think? Do you think that climate change is happening?

- ☐ Yes – Definitely
- ☐ Yes – Probably
- ☐ No – Probably
- ☐ No – Definitely

How important is the issue of climate change to you personally?

- ☐ Very important
- ☐ Somewhat important
- ☐ Not too important
- ☐ Not at all important

[Page Break]

Demographic: all participants were asked the following questions.

How would you describe your political beliefs?

- ☐ Very liberal
- ☐ Liberal
- ☐ Slightly liberal
- ☐ Moderate
- ☐ Slightly conservative
- ☐ Conservative
- ☐ Very conservative

In politics today, do you consider yourself…

- ☐ Republican
- ☐ Democrat
- ☐ Independent

What is your gender?

- ☐ Man
- ☐ Woman
- ☐ Other

What is your age (in years)? _____

What is the highest level of education you have attained?

- ☐ Some high school
- ☐ High school diploma or GED
- ☐ Some college
- ☐ College degree
- ☐ Some graduate school
- ☐ Graduate degree

What is your annual household income, in US dollars? _____

What is your ZIP code? _____

[Page Break]

Attention check: all participants were asked the following question.

In your own words, what was this survey about? Please write at least two or three sentences.
[Open ended]

Additional: all participants were asked the following questions.

Finally, please think of any books or movies **that have moved you to act in new ways**? Please list them below and say briefly how they changed you.
[Open ended]

[Page Break]

Do you have any additional thoughts or comments about the survey that you would like to share with us?
[Open ended]

[Page Break]

Thanks for your participation! Your confirmation number will be given to you on the next page.
