Rising Seas, Rising Concerns: How Climate Change Vulnerability Shapes Opinions Towards Policy

Tyler Reny
Claremont Graduate University
tyler.reny@cgu.edu

Andrew Reeves
Washington University in St. Louis
reeves@wustl.edu

Dino Christenson
Washington University in St. Louis
dinopc@wustl.edu

September 2, 2022

Abstract

Public opinion towards human-induced climate change is polarized along partisan lines. Indeed, the preponderance of scholarly work suggests that not even direct experiences with the consequences of climate change result in long-lasting effects on opinions or behaviors. Our analysis of over 519,000 survey respondents and nearly 30,000 precinct-level voting returns challenges this emerging consensus for one kind of climate change event: sea level rise. We find that persistent vulnerability to sea level rise powerfully influences opinions and behaviors on global warming. Coastal residents whose communities are affected by sea-level rise are more likely to believe in climate change and be willing to act accordingly. This association is strongest among those who are firmly attached to their communities, as opposed to those with the most to lose financially. We speculate that sea-level rise is unique in that its effects are not easily mitigated and that the ocean is an ever-present reminder of the inexorable toll of climate change.

In early August 2021 the Intergovernmental Panel on Climate Change (IPCC), a consortium of the world's top climate scientists and experts, released a report that highlighted three key takeaways for policymakers around the world: first, that human influence has warmed the atmosphere, oceans, and land; second, that continued warming will intensify global water cycles leading to greater severity of dry and wet events; and third, that changes will be irreversible for centuries to millennia, particularly the melting of ice sheets and the rise of sea levels.

In the US, citizens experience more frequent severe hurricanes in the Atlantic; drought, extreme heat events, and forest fires across the American West; and tornadoes and hail across central and southern states. Rising sea levels, which are projected to render many communities uninhabitable by the end of the 21st century, pose an existential threat. Rising sea levels will destroy coastlines, swamp public infrastructure, cut off highways, and seep into freshwater supplies in communities all along the US coast. Simulations suggest that by 2100, upward of 13 million Americans living along the coastline will have to relocate (Hauer 2017, 2020).

Despite a robust scientific consensus around the human causes of climate change, research on US public opinion suggests that Americans' are skeptical that it exists, have low levels of concern for its effects, and generally eschew support for costly interventions (Bowman, O'Neil, and Sims 2016). These opinions are crystallized, temporally stable, and polarized along partisan lines (for an overview, see Egan and Mullin 2017).

However, first-hand experiences with climate change may lead individuals to see the urgency in taking action and adjust their policy preferences accordingly. Weather phenomena brought on by climate change reclaiming or destroying lands once utilized by a community may be a more influential stimulus than a task force report. We hypothesize that this is especially true in the case of those individuals experiencing sea-level rise. Unlike episodic extreme weather events like hurricanes and wildfires, the relationship between coastal communities and sea level is constant and ever-present. Further, rising oceans resist feasible mitigation strategies. Individuals may alleviate extreme temperatures with air conditioning or adopt construction practices to protect homes against fire and winds. But there is virtually no way to prevent rising sea levels' inevitable and relentless coastal erosion.

In this article, we use various original and existing survey data, together with precinct-level voting returns on climate-related ballot propositions, to assess the relationship between susceptibility to sea-level rise and support for climate mitigation policies. We argue that coastal residents' exposure to rising sea levels generates rumination and anxiety, facilitating support for federal and state action. We find evidence for this relationship that is robust across a variety of datasets as well as methodological and substantive modeling choices. Further, we find that this effect is predominantly concentrated not among those with the most to lose economically—like residents of wealthy coastal tourist communities—but rather among residents with strong connections to their communities.

Taken together, our findings reveal how residential vulnerability to climate disaster shapes support for climate mitigation policy, the predominant mechanism by which it affects such opinions, and among whom this relationship is strongest. Our project is one of the first to theorize how vulnerability may play an increasingly crucial role in the climate debate (see also Gaikwad, Genovese, and Tingley 2022 which looks at distributive preferences). From a policy-making perspective, it suggests that educational campaigns and public messaging about the susceptibility of low-lying coastal areas to rising sea levels and their residents' regular experiences with it could be a key tool to increase public support and demand for climate mitigation policies. As elected leaders struggle to find the political will to enact drastic adjustments in the short term to stave off future disasters, there is already an increase in the public's support for climate mitigation policy among those exposed to the relentless rise of the sea.

American Beliefs About Climate Change

Though climate change is an urgent and existential issue, public opinion is characterized by disagreement over the severity of the problem, its origins, and its potential solutions. In a poll from early 2022, 46 percent of Americans said human activity contributed "a great deal" to climate change, while 29 percent said human activity played "some" role and 24 percent said human activity has "not too much" of a role.[1] Disagreement over the veracity, origins, or seriousness of the issue further translates into disagreement on policy solutions. Thirty-three percent of the public opposes the Democrats' "Green New Deal," a series of policies aimed at restructuring the US economy around green energy jobs.[2] Individual policies poll similarly, if not worse. Thirty-two percent oppose restricting CO_2 emissions from coal powered plants[3] and 43 percent oppose putting a price or tax on fossil fuels like coal, oil, and gas to reduce carbon emissions in the United States.[4] Comparatively, the US lags far behind

1. https://pewrsr.ch/3xyrwM1.
2. https://ropercenter.cornell.edu/ipoll/study/31118181/questionsb114a006-f479-4701-a822-8d39fe8eb1d0
3. https://ropercenter.cornell.edu/ipoll/study/31118373/questions43bffeea-23a3-4673-b9db-d26fbb9bdf07
4. https://ropercenter.cornell.edu/ipoll/study/31118362/questionsf46917f5-e15e-48d0-8b9b-49b2c8fc1eb8

other countries in recognition of the severity of the problem and support for solutions.[5]

With the increase in extreme weather from climate change, there is an opportunity for individuals to update their opinions in response to their objective experience with the world. This raises an important question: "will the predicted increasing frequency and severity of extreme weather events lead citizens to reassess climate change risks, possibly increasing pressure on governments to invest more resources in mitigation and adaptation?"(Konisky, Huges, and Kavlor 2016, 534). Many studies examine how experiences with extreme weather influence opinions towards climate change. The findings suggest at most a weak link between individual exposure to extreme weather and opinions toward climate change. Howe et al. (2019, 1) reviews the findings from 73 papers and finds mixed evidence that weather shapes climate opinions with "some support for a weak effect of local temperature and extreme weather events on climate opinion." Many studies find no relationship between personal experience with extreme weather and opinions toward climate change (Marquart-Pyatt et al. 2014; Brulle, Carmichael, and Jenkins. 2012). For example, Carmichael, Brulle, and Huxster (2017, 599) finds that "extreme weather does not increase concern among Democrats or Republicans." And Marquart-Pyatt et al. (2014, 247) concludes that, "Objective climatic conditions do not influence Americans' perceptions of the timing of climate change and only have a negligible effect on perceptions about the seriousness of climate change." Other studies conclude that the effect of experiencing extreme weather on opinions is small (Hopkins and Pettingill 2018; Konisky, Huges, and Kavlor 2016). For example, Hopkins (2018, 111) finds that the relationship between living near a coast and opinions toward climate change is "small in substantive terms," and Konisky, Huges, and Kavlor (2016, 546) finds that the

5. https://www.pewresearch.org/global/2021/09/14/in-response-to-climate-change-citizens-in-advanced-economies-are-willing-to-alter-how-they-live-and-work/

“marginal effect of a single event is small and short lived.” Similarly, proximity to wildfires may increase self-reported Republican support for adaptation policies among Republicans (Hui, Cain, and Driscoll 2020), but its effect on voting behavior appears to only emerge in Democratic areas and is hyper-localized (Hazlett and Mildenberger 2020).

Other research focuses on how voters hold incumbents accountable for extreme weather (Gasper and Reeves 2011; Healy and Malhotra 2009; Reeves 2011). These studies tend to focus on short-term responses to weather events and usually focus on how voters hold elected officials accountable. For example, Gasper and Reeves (2011) find that voters reward politicians for disaster aid in the aftermath of natural disaster and punish them for the damage itself. There are analogous findings with respect to opinions toward climate change. For example, Konisky, Huges, and Kavlor (2016, 546) finds that “the marginal effect of a single event is small and short lived.” These findings suggest at least a limited capacity for objective climactic experiences to influence political behavior.

Like many issues in American politics, partisan polarization dominates opinions toward climate change. Compared to Democrats, Republicans are typically more skeptical of the link between humans and climate change and more resistant to policy interventions. The dominant finding is that political identities swamp contextual experience in defining views around the environment. While research has uncovered individual-level psychological underpinnings of climate change denialism, like system-justification (Feygina, Jost, and Goldsmith 2010), personality traits (Pavalache-Ilie and Cazan 2018), or cultural cognition of risk (Kahan, Jenkins-Smith, and Braman 2011), there is compelling evidence that elite-level cues and signals (Zaller 1992; Lenz 2012) shape mass opinions about the environment (Tesler 2018; Merkely and Stecula 2021). Hopkins (2018, 111) summarizes this empirical consensus, stating that “If the goal is to accurately predict which respondents think climate change is important, it is far more valuable to know a respondent’s partisan identification than her place of residence.” Likewise, Konisky, Huges, and Kavlor (2016, 546) notes, “Consistent with previous research, our findings suggest that ideology, partisanship, and other attributes are more important than experiences of extreme weather events in shaping individual opinions regarding climate change.”

With the minimal effects consensus around the relationship between experiencing extreme weather and becoming more supportive of policies to mitigate climate change, the outlook is pessimistic that the public will enable the sort of transformative change around environmental policies for mitigation and adaptation. Egan and Mullin (2017, 221) notes that it is “improbable that public opinion in its present state will play a decisive role in catalyzing demand for policy.” Yet other studies suggest that we may be yet to reach a tipping point where extreme weather is pervasive enough to alter opinions. For example, Konisky, Huges, and Kavlor (2016, 546) suggests that “ as the extreme weather predicted by climate scientists begins to occur more frequently and in more places, it is also plausible that people begin to draw stronger connections between this activity and their beliefs, concerns, and policy preferences about climate change.”

In the next section, we build on previous work and hypothesize that vulnerability to future climate disaster may overcome public resistance to change.

Vulnerability and Support for Climate Mitigation Policy

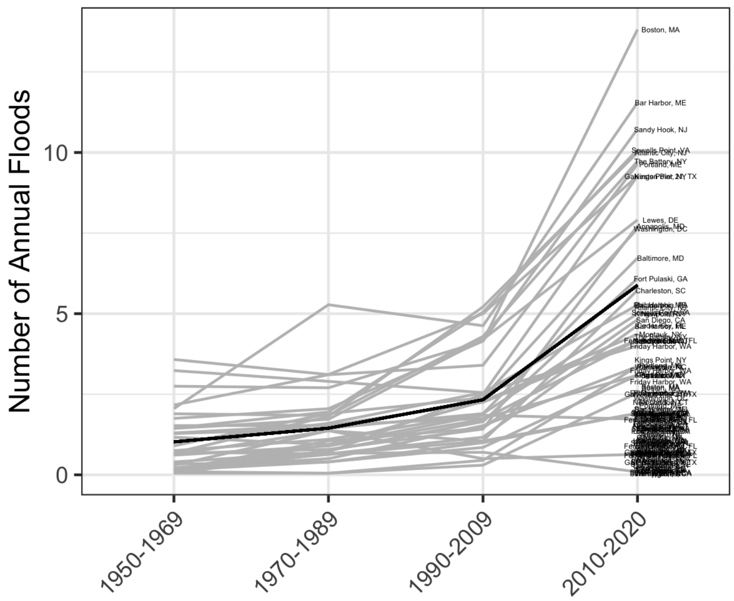
Living in an area susceptible to rising sea levels exposes individuals to frequent storms and flooding that require costly adaptations. Coastal flooding events have increased dramatically since the 1950s. As we show in Figure 1, the number of floods has increased from an average of one per year to nearly six per year between 1950-1969 and 2010-2020 in 33 of the largest coastal cities that are tracked by the US Environmental Protection Agency (EPA). These weather events force waterfront communities to make difficult decisions about costly beach nourishment (i.e. replacing sand lost to ocean erosion) as this erosion worsens. While some communities are raising local taxes to pay for these projects, some are unable or unwilling to fund them leaving uncertain futures. In August of 2021, the town of North Topsail in Onslow County, NC, for example, announced that they were opting out of federal beach nourishment programs because of costs, which exposes the properties along North Topsail beach to the encroaching sea.[6].

These repeated and increasingly frequent threats to one's home and community can trigger anxiety. Humans have strong evolutionary drives toward self-preservation (Catanzaro 1991). Exposure to threats that are resistant to treatment tend to encourage sensitization, feelings of helplessness, and amplified emotional reactions, like acute stress and anxiety (Holman, Garfin, and Silver 2014). For example, research shows that both perceptions of both crime and terrorism can influence political beliefs and behaviors (e.g., Aksoy 2014; Noble, Reeves, and Webster 2022).

These experiences can shape attitudes and motivate specific behaviors through eliciting emotional responses. First, anxiety causes individuals to avoid danger, seek information, find

6. For more see: https://bit.ly/3O7Ajde

Figure 1: Frequency of Flooding Along U.S. Coasts, 1950 to 2020



Note: data from US Environmental Protection Agency coastal flooding datasets. More information can be found at https://www.epa.gov/climate-indicators/climate-change-indicators-coastal-flooding.

protection from threatening events (Roseman 1984; Marcus 2000; Brader 2005, 2006), and to support political policies and candidates who advocate for policies that protect from threat (Albertson and Gadarian 2015; Noble, Reeves, and Webster 2022).[7] Second, anxiety also encourages citizens to more heavily weigh new information rather than rely on predispositions like partisanship or ideology when making political decisions (Marcus 2000; Marcus and Mackuen 1993), and it increases sensitivity to risk (Huddy, Feldman, and Weber 2007), which can be severely underestimated, particularly with rare events (Taleb 2007).

This body of research is instructive for attitudes toward the environment. We argue that

7. Anxiety induced by exposure to terrorism, for example, is associated with support for policies that lead to the curtailment of domestic civil liberties, tougher visa regulations, and foreign intervention (Huddy et al. 2002; Huddy et al. 2005; Huddy, Feldman, and Weber 2007).

sea-level rise is analogous to the persistent and anxiety-inducing stimuli of, for example, terrorism or crime. Though massive flooding occurs infrequently, there are daily reminders about the massive force of the ocean and its capacity to reshape communities. Other events associated with climate change are more easily ignored. High temperatures give way to cooler ones or are mitigated by air-conditioning. Other severe weather events like wild fires or tornadoes may be viewed as rare events or random acts of God that are unlikely to occur again. With sea level rise, the destructive agent remains even after its damage is done. With every crash of a wave along the shore, a coastal-dweller is reminded by the force of the sea. Applied to the case of rising sea levels, our main theoretically-derived expectations and first hypothesis is clear and consistent with existing suggestive evidence:

- *Vulnerability and Anxiety*: Living in an area that is vulnerable to rising sea-levels will be associated with higher levels of anxiety about climate change.
- *Vulnerability and Police Attitudes*: Living in an area that is vulnerable to rising sea-levels will be associated with higher levels of support for climate mitigation policies.

We further consider facts that mediate how anxiety about rising seas impacts political behavior.[8] We propose two potential moderators: economic self-interest and attachment to a community.

Anxiety may be motivated by economic self-interest, which can be defined in several ways. Income may serve as a proxy for economic self-interest given that the costs of inaction may be concentrated among the wealthy (Sears and Funk 1991). More specifically, homeowners may face higher insurance costs and see a decline in their property value. For example, even with federal assistance, the cost of elevating homes at risk from sea-level rise is between

8. Self-reported level of concern over climate change has been shown to be related to knowledge about climate change, trust of science, belief in scientific consensus (Malka, Krosnick, and Langer 2009) and policy attitudes (Albertson and Gadarian 2015).

$49,000 and $89,000.[9] Likewise, there is increasing risk of a total loss as a result of rising sea-levels. One report from 2017 estimated that nearly 2 percent of all US homes worth $882 billion could be underwater by 2100.[10] Though wealthy individuals may have the most exposure to damage from climate change, they may also be better able to bear the costs. Wealthy individuals are likely to mitigate risk through insurance, have savings to deal with temporary hardship, or be better positioned to relocate if the need arises. Similarly, those whose economic livelihoods are tied to the ocean (fishing, tourism, etc.) may be concerned about their economic future, suggesting our second hypothesis:

- *Economic Moderators*: The relationship between vulnerability to rising ocean levels and support for climate mitigation policies will be stronger amongst those who face the greatest financial threat.

Anxiety may also be motivated by more subjective and symbolic factors like attachment to a community. Many Americans feel deep ties to their communities and this place-based identity can be politically consequential (Cramer 2016; Jacobs and Munis 2019; Nuamah and Ogorzalek 2021). Those who feel strong attachment to their neighborhood, town, or city may be particularly concerned about the future of that community and thus supportive of policies that could provide protection from climate-related harm. Thus, we explore an alternative moderation hypothesis:

- *Identity Moderators*: The relationship between susceptibility to rising ocean levels and support for climate mitigation policies will be stronger amongst those who have the greatest place-based identity.

We focus on the case of susceptibility to rising sea levels. As we have discussed, sea-level rise stands apart from other human-induced climate change in that coastal residents

9. https://www.wpri.com/target-12/few-in-charlestown-choose-to-elevate-homes-despite-storm-surge-risk/.
10. https://www.zillow.com/research/climate-change-underwater-homes-12890/.

are constantly reminded of the inexorable force of the ocean. For some Americans, human-induced climate change is not a lived experience but rather something they occasionally hear about in the national news. Others experience drought, extreme heat, tornadoes, or other disasters associated with climate change. But, as we have argued, these disasters are more easily dismissed as epiphenomenal. While a river may experience a 100 year flood, it quickly recedes and may be easily dismissed as a random event that is unlikely to occur again. Similarly, voters may be more sensitive to economic stimuli they consistently observe in their daily lives—like rising gas prices or local unemployment—compared to global or national trends or less frequent events (Reeves and Gimpel 2012; Park and Reeves 2020).

We do not merely assert this difference. In Appendix Tables C5 we show that susceptibility to other forms of climate disaster including extreme heat, wet bulb (heat and humidity), wildfire, and lower farm crop yields are not associated with support for climate mitigation policy. Humans have learned to adapt to a variety of harsh environments and to rebuild following natural disasters. For example, air conditioning has made it possible for large populations to live in areas with high levels of heat in ways that were not possible in the very recent past (Culver 2012). Cities like Phoenix, Arizona, which experienced 144 days of temperatures exceeding 100 degrees Farenheit in 2020[11], are among the fastest growing cities in the United States[12]. Similarly, communities that experience destruction from hurricanes, tornadoes, and wildfires generally rebuild (for example, see Kates et al. (2006)). By contrast, adaptation to rising sea levels is both a) constant and b) costly and/or infeasible in many parts of the United States. In the conclusion, we return to a discussion of the implications

11. https://ktar.com/story/4365520/phoenix-expected-to-hit-100-degrees-for-first-time-in-2021-this-weekend/

12. https://www.rocketmortgage.com/learn/fastest-growing-cities-in-the-us

Table 1: Details of Survey Data

Name	Vendor	Field Dates	Sample	N Waves	Sample Size
Original Survey 1	Lucid	2021-01-21 to 2021-02-03	National	1	N=2,984
Original Survey 2	Lucid	2021-09-05 to 2022-03-12	National	3	N=3,267
Nationscape	Lucid	2019-07-18 to 2021-02-03	National	71	N=494,796
CES	YouGov	2019-11-06 to 2019-12-05	National	1	N=18,000

Note: Full details of each survey can be found in Appendix A.

for the distinction of sea-level rise vis-à-vis other types of severe weather events.

Data and Methods

We first analyze the relationship between susceptibility to rising ocean levels and individual-level support for climate mitigation policy using a variety of original and existing datasets listed in Table 1. These include two original surveys collected via Lucid Theorem between January 2021 and March 2022, the UCLA + Democracy Nationscape survey, a large-N multi-wave survey fielded between July 2019 and February 2021 (Tausanovitch and Vavreck 2021), and the Cooperative Election Study fielded in 2019. All Lucid surveys are sampled to match key demographic quotas of the adult US population and the CES relies on YouGov's proprietary sample matching procedures to approximate random sampling.[13]

Our primary dependent variables are (1) anxiety about global warming and its impact; and (2) support for climate mitigation policies. We measure anxiety using responses to the following question: "Please indicate how much you personally worry about this problem:" included global warming (mean = 3.05; sd=1.00), severe weather events (mean = 3.14; sd=0.93), and melting of glaciers (mean = 3.00; sd=0.97)(4-pt likert response from not at all

13. For more details on each survey see Appendix A.

(1) to a great deal (4)). We measure support for climate mitigation policy using an additive scale of support for federal-level climate mitigation policies including support for a carbon tax on heavily polluting industries, increasing federal fuel efficiency standards for motor vehicles, a federal ban on single use plastics, increasing research on meat alternatives, increasing gas taxes, investments in transition to 100 percent electricity generation from renewable energy sources, building an energy efficient smart grid, upgrading industrial buildings for state-of-the-art energy efficient, and investments in projects to capture climate damaging gases.[14]

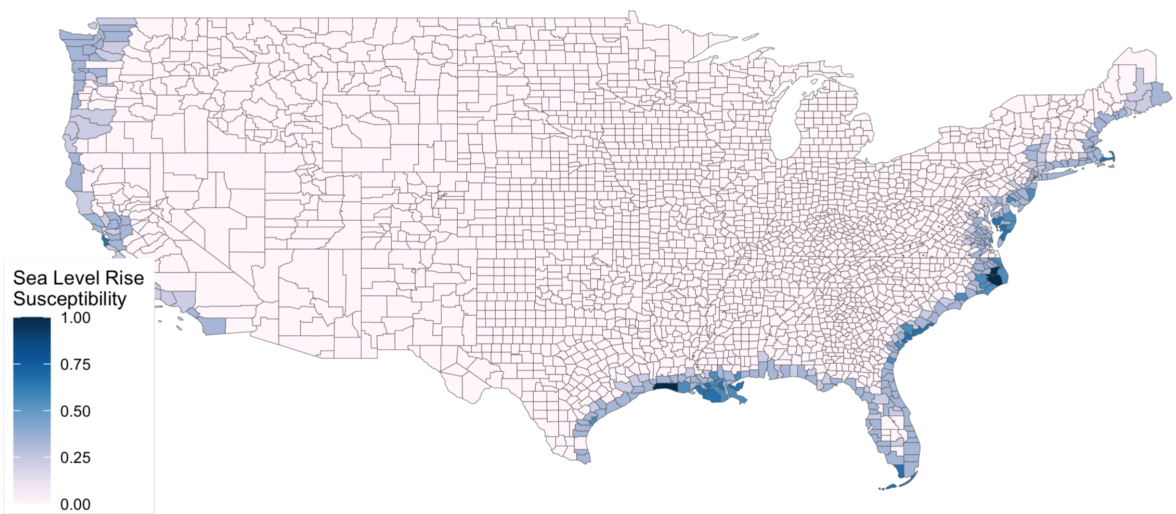
Our primary independent variable is a continuous measure of susceptibility to rising sea-levels compiled for ProPublica by the Rhodium Group and measured at the county level. We present these data in Figure 2. This measure is based on county proximity to the ocean, average ground-level altitude above high-tide, and projections of sea-level rise. We re-scale this measure to range between zero and one. We assess the robustness of this measure in our main model using a finer-grained measure of susceptibility at the 5-digit ZIP code tabulation area, which is generated from Zillow data (Dahl, Fitzpatrick, and Spanger-Siegfried 2017). We geo-located respondents within their respective counties based on their ZIP code using a ZIP code to county crosswalk.[15]

We also include demographic data from the US census 2015-2019 American Community Survey (ACS) and county-level contextual political data (Amlani and Algara 2021) for robustness checks. Our statistical models control for standard individual-level demographic factors including race and ethnicity, age, sex, family income, education, ideology, and partisanship. We merge in additional data for various robustness checks that will be described

14. These items were combined into an additive scale (mean = 0.65; sd=0.22) and re-scaled to range between 0 and 1. The items are internally consistent (Cronbach's α=0.86) and load consistently on a single factor. We include the factor loadings and a correlation matrix for all of the scale items in Appendix B.

15. For more details on these measures see Appendix B.

Figure 2: County-Level Susceptibility to A Rising Sea



Data from ProPublica based on projections of sea-level rise by 2100 by the Rhodium Group.

Table 2: Susceptibility and Concern About Climate Disasters

	Global Warming	Weather	Glaciers	Extinction	Pollution
Susceptibility	0.30**	0.60***	0.23*	0.23	0.17
	(0.13)	(0.11)	(0.12)	(0.15)	(0.11)
Control Variables	✓	✓	✓	✓	✓
N	2588	2588	2588	2588	2588
N Clusters	886	886	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: Dependent variable is measure of concern about global warming (column 1), extreme weather (column 2), melting of glaciers (column 3), extinction of plants and animals (column 4) and pollution (column 5). Independent variable is an objective measure of county-level susceptibility to sea-level rise. OLS coefficients with heteroskedastic-robust standard errors clustered at county level. Models include political and demographic controls but are not listed in this table. Full regression tables can be found in Appendix C.

in greater details below and in Appendix B.

Results

We begin by assessing whether respondents who live in areas that are susceptible to rising-sea levels are cognizant of the threats. In line with our hypotheses, those living in an area that is susceptible to rising sea levels should express higher levels of concern over global warming. In addition, we should find that this concern is rooted in perceived self-interest. Susceptibility should be a linked perception that climate change will pose a serious threat to a respondent's *own way of life*, not just a general abstract threat to others or a nation.[16]

In Tables 2 and 3 we display the results of these tests. First we show that susceptibility to rising ocean levels is associated with concern about global climate change, increasingly

16. Question wording in note under Table 3.

Table 3: Susceptibility and Perceived Impact of Climate Change

	Impact You	Impact Poor Cs	Impact Rich Cs
Susceptibility	0.19***	0.08	0.11
	(0.07)	(0.05)	(0.07)
Control Variables	✓	✓	✓
Num. obs.	2587	2586	2587
N Clusters	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: Dependent variable is an indicator of whether respondent views climate change as a serious threat personally (column 1), to those in poor countries (column 2), or to those in other rich countries (column 3) ("Do you think that climate change will pose a serious threat to the following individuals or groups and their way of life in your lifetime?: You; People in poorer countries; people in other wealthier countries. (1=yes; 0=no)". Independent variable is an objective measure of county-level susceptibility to sea-level rise. OLS coefficients with heteroskedastic-robust standard errors clustered at county level. Models include political and demographic controls but are not listed in this table. Full regression tables can be found in Appendix C.

severe weather events, and melting of glaciers, but not to other environmental issues like extinction of plant and animal species or pollution of air, soil, and water that are not as directly linked to the effect of climate change on rising oceans. These findings are consistent with our hypothesis. Further, respondents living in an area that is susceptible to rising ocean level perceive that climate change will pose a serious *personal* threat in their lifetimes, but is not associated with general perceptions of threat to other wealthier or developing countries. Together these findings suggest that the threat of global climate change is real, personal, and anxiety-inducing for those Americans who live in low lying coastal areas. But does it also translate into greater levels of support for climate mitigation policies?

Our results suggest that it does. In Table 4 we display results of our model displaying the bivariate association (column 1) and then the association controlling for standard individual-

Table 4: Susceptibility and Support for Climate Mitigation Policy

	Support Policy	Support Policy
Susceptibility	0.19***	0.10***
	(0.05)	(0.03)
Control Variables		✓
Num. obs.	2846	2584
N Clusters	932	885

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: Dependent variable is a scale of support for climate mitigation policies (columns 1 and 2). Independent variable is an objective measure of county-level susceptibility to sea-level rise. OLS coefficients with heteroskedastic-robust standard errors clustered at county level. Model 2 include standard political and demographic controls. Full models can be found in Appendix C.

level demographic and political factors (column 2). Consistent with our expectations, we find that living in an area susceptible to rising ocean levels is also associated with greater support for climate mitigation policy. These results are substantively meaningful, too. Holding all else equal, moving from living in an area least to most susceptible to rising ocean levels is associated with a 0.48 standard deviation increase in support for climate mitigation policy.

Robustness Tests

Before moving to tests of moderators, we conduct a series of robustness checks on this main result. First, we show that the results are robust and substantively identical if we control for potential county-level confounders, including racial demographics, college education, unemployment, and median income (Appendix Table C9). A sensitivity analysis suggests that to explain all the observed estimated effect, even in a worst case scenario where the unobserved confounder explains all residual variation of the outcome, this unobserved confounder would need to be more than twice as strongly associated with the treatment as partisanship. It is unlikely that such a confounder exists (Appendix Table C10). The results are also robust when substituting zip-code level risk for county-level risk (Appendix Table C11). We further show that the result is not unique to our primary Lucid dataset; the result replicates, and the magnitude of the association is extremely consistent, with our other multi-wave Lucid survey and other highly-respected surveys including the Democracy Fund + UCLA Nationscape survey (N=465,521) fielded between 2019 and 2021 and the Cooperative Election Study (N=18,000) fielded in 2019 (Appendix Tables C12, C13 and C14).

We might be concerned that those who live in low-lying coastal areas are simply different from other Americans. While we control for obvious confounders like partisanship and ideology, it may be the case that these respondents are more culturally liberal, more altruistic, less anthropocentric, or spend more time enjoying nature than other Americans. In a series of falsification tests we find that living in an area susceptible to rising sea levels is not predictive of attitudes toward the police (Blue Lives Matter movement), racial resentment, or affect toward Republicans, Prius drivers, or pickup truck drivers (Appendix Table C15). Further it is not predictive of future orientation or anthropocentric views and is *negatively* correlated with altruism, enjoyment of nature, and outdoor recreation (Appendix Table C16).

We might also be concerned with the construction of our "treatment" variable, the composition of our "control" units, or that our findings are driven by counties in one or more liberal states that have large numbers of susceptible residents (e.g. Cape Cod in Massachusetts). It could be that our measure of susceptibility is simply proxying for living in a coastal county or on another body of water like the Great Lakes. In Appendix Table C17, we show that neither are predictive of greater levels of support for climate mitigation policy. Similarly, we might be concerned that by including all Americans, including those who live in the Midwest and Mountain States as "control" units introduces an enormous amount of heterogeneity, making it more difficult to approximate all-else-equal inferences. To address this, we calculate the distance between the centroid of each county in the US and its nearest coastal county and then subset and re-run our analyses at various bandwidths. In other words, we restrict our sample to just treated and control residents that live 50, 100, 150 miles, and so on, from the coast before re-estimating our main model with each restricted sample. As we show in Appendix Figure C4, the main coefficient of interest is substantively identical and statistically significant no matter how we restrict our sample. Finally, we run a series of tests to assess whether our results are driven by any outlier states. In Appendix Table C18 and Appendix Figure C5, we show that our results are not sensitive to the inclusion of state or region fixed effects and our results do not change if we drop any one state from the sample and re-run the analysis.

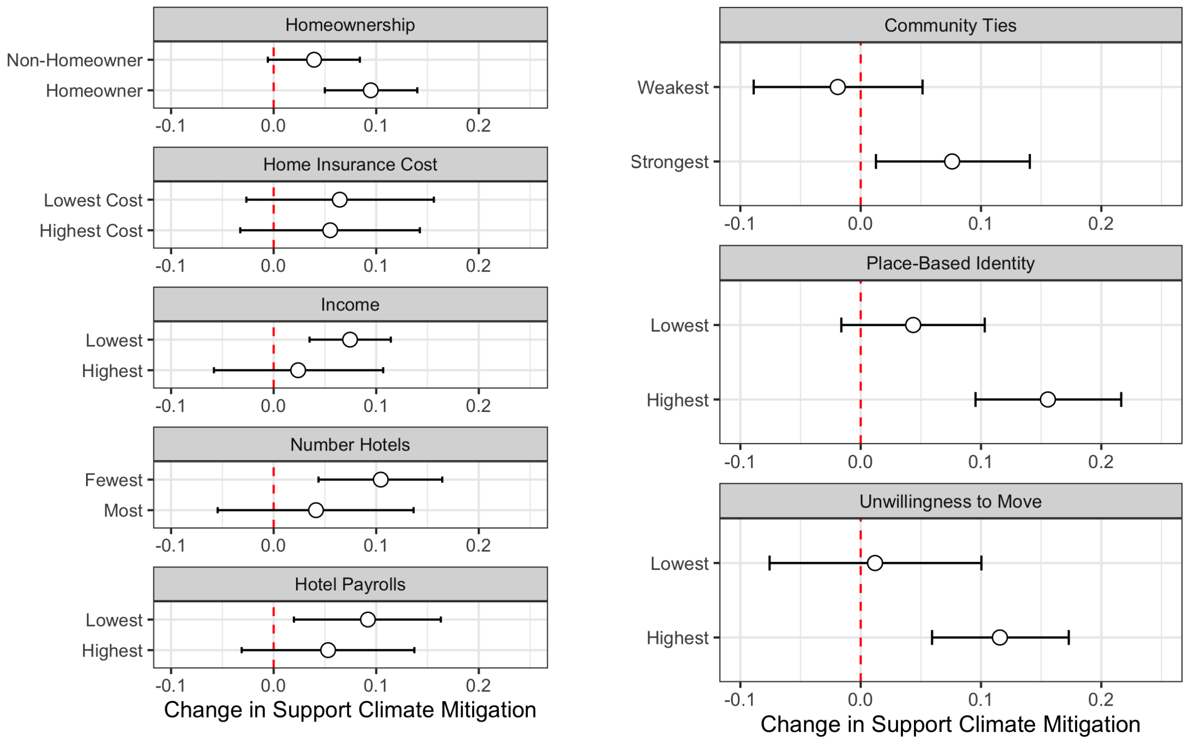
Our results thus far suggest that those Americans who live in areas that are susceptible to rising sea levels are more likely to worry about climate change, feel that it is impacting them or will personally impact them in their lifetimes, and are more supportive of federal climate mitigation policies. These results are robust to a variety of model specifications, different operationalizations of key variables, and a variety of falsification tests; and they replicate with other datasets collected at different time periods with different samples. We move next to consider among whom these effects are most concentrated.

Economic Self-Interest or Place Based Identity?

To test the main hypothesized moderators—place-based identity and economic self-interest—we turn to our multi-wave Lucid survey where we asked a series of relevant questions. We begin by assessing the role of economic self-interest using multiple items. First, we interact susceptibility with the most obvious individual-level measure of economic risk—home ownership. We also subset our survey dataset to just homeowners and interact susceptibility with self-reported cost of home insurance to see if those who are already paying the highest home insurance bills are most likely to connect their susceptibility with support for climate mitigation policy. Lastly, we interact susceptibility with annual household income. We also test two measures of local economic self-interest—county-level measures of the number of hotels and amount of tourism-related payrolls—to assess whether residents who live in communities that are more likely to rely economically on the tourism industry are particularly likely to support climate mitigation policies. In Figure 3 Panel A (Appendix Table C19) we plot the change in support for climate mitigation policy moving susceptibility from its lowest to highest values for those at the lowest and highest levels of each moderator. Our findings are nuanced. While it is true that the relationship between susceptibility and support for climate mitigation policy is statistically different from zero for homeowners, those with lower incomes, and for those living in areas with less tourism, the differences between the points in each plot, that is whether we can say with statistical confidence that the marginal effect of susceptibility is different for the two levels of the moderator, are only statistically significant at $p < 0.10$ for home ownership (diff = 0.055 90% CI: [0.001,0.11]) but not for any of the other moderators. This suggests that while homeownership likely matters, economic vulnerability is not a consistent moderator of climate susceptibility on support for climate mitigation policy.

Figure 3: Economic and Place-Based Identity Moderators

(a) Economics (b) Identity



Note: Points indicate change in predicted support for climate mitigation policies moving susceptibility from its lowest to highest levels across various economic (panel a) and identity-based (panel b) moderators with 90% confidence intervals.

What about the role of place-based identity? We interact three different measures of place-based identity with susceptibility to sea-level rise. The first measures the strength of ties to their current communities, the second is an additive scale of seven items tapping into the extent to which respondents' communities are integral to their identity, and the third measures a respondent's willingness to move from their current community.[17] As we

17. Details of each question can be found in Appendix B.

show in Figure 3 Panel B and Appendix Table C20, moving susceptibility from its minimum to maximum values is associated with a statistically significant increase in support for climate mitigation policy *only* for those with the highest levels of place-based identity. These differences are statistically significant at $p < 0.1$ for community ties (diff=0.95, 95% CI: [-0.01,0.20]) and at $p < 0.05$ for willingness to move (diff=0.10, 95% CI: [0.001,0.207]) and place-based identity scale (diff=0.10, 95% CI: [0.01,0.19]). This suggests that susceptibility translates to increased support for climate mitigation policy predominantly amongst those with strong ties to their communities, and thus a strong incentive to want to stay, fight for, and protect their homes and neighborhoods.

Voting Behavior

Finally, we test our theory using a behavioral outcome: voting for state-level climate-related ballot propositions and initiatives. Precinct-level voting data overcomes several of the limitations of our survey-based approach. First, it maximizes external validity given that voting is actual political behavior, not a survey response delivered in an artificial online setting. Second, it overcomes some of the concerns that our findings from our survey-based analysis may include bias due to unrepresentative samples in coastal areas. Electoral precinct vote return data represents the views of the entire population of voters in a given election at relatively low-levels of geographic aggregation.

Using Ballotpedia, we built a dataset of all ballot propositions and initiatives from 2010 to 2021 that dealt with clear climate-related outcomes—things like clean energy initiatives, state-level carbon taxing schemes, and investments in other greenhouse gas reducing policies. From there we removed states where precinct-level election results were not available in the state's election returns archives (e.g., many states do have publicly available precinct-level election results for elections before 2016 or 2020) and where there was insufficient variation on the proportion of homes in state zip codes that are susceptible to rising ocean levels (e.g., Rhode Island). This yielded three ballot propositions: California's Proposition 23 which aimed to suspend an air pollution control and failed at the ballot box in 2010, Washington State's Initiative 732 that aimed to levy a carbon tax in Washington State and failed at the ballot box in 2016, and finally Florida's Amendment 1, a measure that aimed to change the state constitution to allow consumers to lease or own solar equipment to generate electricity for their own use, that also failed in 2016. As such, our sample of elections includes states with different political cultures and located in different geographic regions of the country.

We combined precinct-level returns for each ballot proposition with our zip-code sea-level rise susceptibility measures, other electoral data, and census-block demographics data from the 5-year American Community Survey in 2007-2011 or 2012-2016.[18] For each model, we regress precinct-level percent support for the climate-related measure on the zip code sea-level rise susceptibility measure and control for median household income, college education, and partisanship as proxied by Democratic vote in a previous election. Heteroskedastic-robust standard errors are clustered at the zip code level.

In Table 5 we show that susceptibility to rising sea-levels and is positively correlated with pro-climate voting behavior in all three cases. While the associations vary in magnitude, they are all statistically significant and substantively meaningful. This additional set of results, which is consistent with our attitudinal findings, offers further evidence that living in an areas that is susceptible to rising ocean levels is associated not just with support for

18. For details see Appendix B.

Table 5: Vulnerability and Voting for Climate-Related Ballot Propositions and Initiatives

	No on Prop 23 (CA)	Yes on 723 (WA)	Yes Prop 1 (FL)
Intercept	0.20***	0.08***	0.53***
	(0.00)	(0.00)	(0.01)
Susceptibility	0.04***	0.14**	0.05***
	(0.01)	(0.06)	(0.01)
Median Income	0.02	−0.15***	−0.00
	(0.01)	(0.01)	(0.03)
Pct College	0.19***	0.06***	−0.26***
	(0.00)	(0.01)	(0.02)
Pct Dem Vote	0.65***	0.60***	0.11***
	(0.01)	(0.01)	(0.01)
R^2	0.71	0.86	0.25
Adj. R^2	0.71	0.86	0.24
Num. obs.	16918	6721	5233
RMSE	0.08	0.05	0.09
N Clusters	1322	519	859

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: Dependent variable is precinct-level support for climate-related ballot proposition / referendum. Independent variable is an objective measure of zipcode-level susceptibility to sea-level rise. OLS coefficients with standard errors clustered at zip code level in parentheses.

federal climate mitigation policy but also with actual voting for state-level climate mitigation policies.

Conclusion and Discussion

Any large-scale political action on climate change in the United States will require substantial backing from the American public. Existing research on public support for such policies suggests that rapid change is unlikely to happen. Like mass opinions in other political domains, belief in human-induced climate change and support for climate policies, are both relatively stable in the aggregate and deeply polarized along partisan lines. Research suggests that exposure to extreme events like long periods of excessive heat, hurricanes, and wildfires can shape public opinion, but the effects are small and quick to decay.

We propose that climate change vulnerability offers a different route by which context can shape support for climate policy. More specifically, we hypothesize that individuals living in coastal areas susceptible to rising ocean levels face reminders of the pending effects of climate change on a daily basis, increasing the salience of the problem and anxiety over the gradual effects of such changes, which in turn helps boost support for federal climate mitigation policies. Joining other recent work on climate vulnerability and preferences (e.g., Gaikwad, Genovese, and Tingley 2022), we find evidence for our core hypotheses that are remarkably consistent across datasets and robustness checks.

Further, we find much stronger evidence that the link between climate change vulnerability and support for climate mitigation policy predominates amongst those who feel strong attachments to their communities, not those who potentially have the greatest economic exposure. Adopting Hirschman's (1970) logic, we view vulnerability to climate crisis as a sort of long-term ultimatum facing residents of certain communities in the United States and around the world. The residents of these communities that are facing long-term harm can either exit via out-migration as an immediate or long-term strategy, or they can stay and attempt to mitigate the worst effects of climate change by adopting and supporting policies aimed at attenuating the worst effects of rising global temperatures. Those with financial means have the ability to move (exit), but those who have strong ties to their communities or fewer financial means instead choose to stay and fight.

Our findings suggest a number of avenues for future research. First, we hypothesize and present evidence that rising ocean levels are unique relative to other vulnerabilities in their omnipresence and persistence for coastal resident, as well as in the relative permanence of damage inflicted by a rising sea. However, we need further research to understand these differences. Perhaps as the effects of climate change grow more servere, these other climatic phenomena may results in similar change. Second, while our various empirical approaches address many concerns associated with selection-on-observables designs, we remain limited in our ability to claim a causal connection between vulnerability and climate policy opinions. One potential path forward is assessing whether exogenous events like large coastal storms and associated flooding events primes vulnerability for those living in areas susceptible to rising ocean levels and causes subsequent spikes in support for climate mitigation policies.

Ultimately, our work differs from previous literature that suggesting that contextual exposure to climate disaster has small to no effects. Consistent with Konisky, Huges, and Kavlor (2016), our findings suggest that tens of millions of residents who are increasingly susceptible to rising ocean levels are increasingly drawing strong connections between their lived experiences and their climate beliefs, concerns, policy opinions, and behaviors. Our findings suggest that activists and other interest groups can target educational campaigns and public messaging highlighting vulnerabilities and connecting these vulnerabilities to communities and policies. In doing so, they may be able to generate greater public pressure, across a broader range of constituencies, for politicians to act (Grossman, Mahmood, and Isaac 2021).

References

Aksoy, Deniz. 2014. "Elections and the Timing of Terrorist Attacks." *Journal of Politics* 76 (4): 899–913.

Albertson, Bethany, and Shana Kushner Gadarian. 2015. *Anxious Politics: Democratic Citizenship in a Threatening World.* New York, NY: Cambridge University Press.

Amlani, Sharif, and Carlos Algara. 2021. "Partisanship and Nationalization in American Elections: Evidence from Presidential, Senatorial, and Gubernatorial Elections in U.S. Counties, 1872-2020." *Electoral Studies* 73:1–13.

Bowman, Karlyn, Eleanor O'Neil, and Heather Sims. 2016. "AEI Public Opinion Study: Polls on the Environment, Energy, Global Warming, and Nuclear Power." *AEI Reports.*

Brader, Ted. 2005. "Striking a Responsive Chord: How Political Ads Motivate and Persuade Voters by Appealing to Emotions." *American Journal of Political Science* 49 (2): 93–98.

———. 2006. *Campaigning for Hearts and Minds: How Political Ads Use Emotion to Sway the Electorate.* Chicago, IL: University of Chicago Press.

Brulle, Robert J., Jason Carmichael, and J. Craig Jenkins. 2012. "Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the US, 2002–2010." *Climatic Change* 114 (2): 169–188.

Carmichael, Jason T., Robert J. Brulle, and Joanna K. Huxster. 2017. "The great divide: understanding the role of media and other drivers of the partisan divide in public concern over climate change in the USA, 2001–2014." *Climatic Change* 141 (4): 599–612.

Catanzaro, Denys de. 1991. "Evolutionary Limits to Self-Preservation." *Ethology and Sociobiology,* no. 12, 13–28.

Cramer, Katherine J. 2016. *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker.* Chicago, IL: University of Chicago Press.

Culver, Lawrence. 2012. "The desert and the garden: Climate as attractor and obstacle in the settlement history of the Western United States." *Environment & Society Portal* 5 (9): 130–159.

Dahl, Kristina A., Melanie F. Fitzpatrick, and Erika Spanger-Siegfried. 2017. "Sea level rise drives increased tidal flooding frequency at tide gauges along the U.S. East and Gulf Coasts: Projections for 2030 and 2045." *Plos One* 12 (2): 1–23.

Egan, Patrick J., and Megan Mullin. 2017. "Climate Change: US Public Opinion." *Annual Review of Political Science* 20:209–227.

Feygina, Irina, John T. Jost, and Rachel E. Goldsmith. 2010. "System Justification, the Denial of Global Warming, and the Possibility of System Sanctioned Change." *Personality and Social Psychology Bulletin* 36 (3): 326–338.

Gaikwad, Nikhar, Federica Genovese, and Dustin Tingley. 2022. "Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World's Two Largest Democracies." *American Political Science Review,* 1–19.

Gasper, John T., and Andrew Reeves. 2011. "Make it Rain? Retrospection and the Attentive Electorate in the Context of Natural Disasters." *American Journal of Political Science* 55 (2): 340–355.

Grossman, Matt, Zuhaib Mahmood, and William Isaac. 2021. "Political Parties, Interest Groups, and Unequal Class Influence in American Politics." *Journal of Politics* 83 (4): 1–15.

Hauer, Mathew E. 2017. "Migration induced by sea-level rise could reshape the US population landscape." *Nature Climate Change* 7:321–327.

———. 2020. "Modeling migration patterns in the USA under sea level rise." *Plos One* 15 (1): 1–15.

Hazlett, Chad, and Matto Mildenberger. 2020. "Wildfire Exposure Increases Pro-Environment Voting within Democratic but Not Republican Areas." *American Political Science Review* 114 (4): 1259–1365.

Healy, Andrew, and Neil Malhotra. 2009. "Myopic Voters and Natural Disaster Policy." *American Political Science Review* 103 (3): 387–406.

Hirschman, Albert O. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States.* Cambridge, MA: Harvard University Press.

Holman, E. Alison, Dana Rose Garfin, and Roxane Cohen Silver. 2014. "Media's Role in Broadbasting Acute Stress Folling the Boston Marathon Bombings." *PNAS* 111 (1): 93–98.

Hopkins, Daniel J. 2018. *The Increasingly United States.* Chicago, IL: University of Chicago Press.

Hopkins, Daniel J., and Lindsay M. Pettingill. 2018. "Retrospective Voting in Big-City US Mayoral Elections." *Political Science Research and Methods* 6 (4): 697–714.

Howe, Peter D., Jennifer R. Marlon, Matto Mildenberger, and Brittany S. Shield. 2019. "How will climate change shape climate opinion?" *Environmental Research Letters* 14 (11): 113001.

Huddy, Leonie, Stanley Feldman, Theresa Capelos, and Colin Provost. 2002. "The Consequences of Terrorism: Disentangling the Effects of Personal and National Threat." *Political Psychology* 23 (3): 485–509.

Huddy, Leonie, Stanley Feldman, Charles Taber, and Gallya Lahav. 2005. "Threat, Anxiety, and Support for Antiterrorism Policies." *American Journal of Political Science* 49 (3): 593–608.

Huddy, Leonie, Stanley Feldman, and Christopher Weber. 2007. "The Political Consequences of Perceived Threat and Felt Insecurity." *ANNALS of the American Academy,* no. 614, 131–153.

Hui, Iris, Bruce E. Cain, and Anne Maureen Driscoll. 2020. "Actual experience, partisan distortion, and recall of wildfire events." *Bill Lane Center for the American West,* 1–24.

Jacobs, Nicholas F., and B. Kal Munis. 2019. "Place-Based Imagery and Voter Evaluations: Experimental Evidence on the Politics of Place." *Political Research Quarterly* 72 (2): 263–277.

Kahan, Dan M., Hank Jenkins-Smith, and Donald Braman. 2011. "Cultural cognition of scientific consensus." *Journal of Risk Research* 14 (2): 147–174.

Kates, R. W., C. E. Colten, S. Laksa, and S. P. Leatherman. 2006. "Reconstruction of New Orleans after Hurricane Katrina: A research perspective." *PNAS* 103 (40): 14653–14660.

Konisky, David M., Llewelyn Huges, and Charles H. Kavlor. 2016. "Extreme weather events and climate change concern." *Climatic Change* 134 (4): 533–547.

Lenz, Gabriel S. 2012. *Follow the Leader? How Voters Respond to Politicians' Policies and Performance.* Chicago, IL: University of Chicago Press.

Malka, Ariel, Jon A. Krosnick, and Gary Langer. 2009. "The Association of Knowledge with Concern About Global Warming: Trusted Information Sources Shape Public Thinking." *Risk Analysis* 29 (5): 633–647.

Marcus, G. E. 2000. "Emotion in Politics." *Annual Review of Political Science* 3:221–250.

Marcus, George E., and Michael B. Mackuen. 1993. "Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement During Presidential Campaigns." *American Journal of Political Science* 87 (3): 672–685.

Marquart-Pyatt, Sandra T., Aaron M. McCright, Thomas Dietz, and Riley E. Dunlap. 2014. "Politics eclipses climate extremes for climate change perceptions." *Global Environmental Change* 29:246–257.

Merkely, Eric, and Dominik A. Stecula. 2021. "Party Cues in the News: Democratic Elites, Republican Backlash, and the Dynamics of Climate Skepticism." *British Journal of Political Science,* no. 51, 1439–1456.

Noble, Benjamin, Andrew Reeves, and Steven W. Webster. 2022. "Crime and Presidential Accountability: A Case of Racially Conditioned Issue Ownership." *Public Opinion Quarterly* 86 (1): 29–50.

Nuamah, Sally A., and Thomas Ogorzalek. 2021. "Close to Home: Place-Based Mobilization in Racialized Contexts." *American Political Science Review* 115 (3): 757–774.

Park, Taeyong, and Andrew Reeves. 2020. "Local Unemployment and Voting for President: Uncovering Causal Mechanisms." *Political Behavior* 42 (2): 443–463.

Pavalache-Ilie, Mariela, and Ana-Maria Cazan. 2018. "Personality correlates of pro-environmental attitudes." *International Journal of Environmental Health Research* 28 (1): 71–78.

Reeves, Andrew. 2011. "Political Disaster: Unilateral Powers, Electoral Incentives, and Presidential Disaster Declarations." *Journal of Politics* 73 (4): 1142–1151.

Reeves, Andrew, and James G. Gimpel. 2012. "Ecologies of Unease: Geographic Context and National Economic Evaluations." *Political Behavior* 34 (3): 507–534.

Roseman, Ira J. 1984. "Cognitive determinants of emotion: A structural theory." *Review of Personality and Social Psychology* 5:11–36.

Sears, David O., and Carolyn L. Funk. 1991. "The Role of Self-Interest in Social and Political Attitudes." *Advances in Experimental Social Psychology* 24:1–91.

Taleb, Nassim Nicholas. 2007. *The Black Swan: The Impact of the Highly Improbable.* New York, NY: Random House.

Tausanovitch, Chris, and Lynn Vavreck. 2021. "Democracy Fund + UCLA Nationscape Project, obtained May 2021." *Democracy Fund.*

Tesler, Michael. 2018. "Elite Domination of Public Doubts About Climate Change (Not Evolution)." *Political Communication* 35 (2): 306–326.

Zaller, John. 1992. *The Nature and Origins of Mass Opinion.* ISBN 978-0521407861. New York: Cambridge University Press.

A Datasets

A.1 Lucid

Lucid is an automated marketplace that connects researchers with respondents from a variety of network survey panel companies. Many of these are double opt-in panels where respondents are invited to partake in research via emails, push notifications, in-app pop-ups, or other means. Respondents are incentivized in a variety of ways depending on the supplier. Lucid takes a variety of steps to increase quality of respondents from these survey panel providers including: 1) blocking users from taking surveys multiple times via cookies, IP addresses, or other unique identifiers; 2) screening the quality of respondents through attention check questions and open-ended questions; 3) using third party bot detection services like Google's reCaptcha to block bots; and 4) publishing and providing information on the quality of all their data suppliers. While existing research finds Lucid samples to be of high quality (Coppock and Green, 2016; Coppock and Mcclellan, 2019), and when properly weighted, provide samples that are similar in quality to respected survey respondent panels like Pew's American Trends Panel (Tausanovitch et al., 2021), we took extra steps to ensure data quality including additional attention screeners at the front end of the survey to filter out inattentive respondents before they could count toward our demographic quotas (see Aronow, Kalla, Orr, and Ternovski 2020) (https://osf.io/preprints/socarxiv/8sbe4/).

Lucid respondents were paid according to the policies of the vendors that recruited our sample. The participant pool was benchmarked to be representative of the US adult population, did not contain respondents who we should consider vulnerable or marginalized, nor were respondents or groups differentially benefited or harmed by our research.

A.2 Nationscape

Nationscape is a large, weekly online survey conducted by Lucid for the Democracy Fund and researchers at UCLA that was designed to collect weekly snapshots of the American electorate throughout the 2019-2020 primary and general elections. This cross-sectional survey was in the field every day of the week and includes weekly collections of about N 6,100 responses. While the sample is opt-in, a representativeness assessment of the data finds that the samples are comparable to those collected by well-known pollsters like Pew and YouGov (Tausanovitch et al., 2021). More information on the survey can be found at https://www.voterstudygroup.org/nationscape and see above for more information on Lucid.

A.3 Cooperative Election Study

The Cooperative Election Study (formerly Cooperative Congressional Election Study (CCES)) is a large opt-in internet panel survey administered by YouGov/Polimetrix. Surveys were conducted between November 6 and December 5 2019. The YouGov sample selection follows a two-stage sample-matching process. First, YouGov draws a stratified random sample from the American Community Survey (ACS). This sample is then matched to members of the YouGov/Polimetrix opt-in panel, such that the resulting panel looks the same on observables as the national population. The resulting survey includes X completed interviews and is weighted to be representative of the US adult population.

B Key Variables and Procedures

B.1 Independent Variable

Our primary independent variable is sea-level rise susceptibility as calculated by scientists at Rhodium Group for ProPublica. These estimates are based on proportion of a county that is below the high tide mark based on sea-level rise projections for the year 2100. More information can be found here.

Respondents were cross-walked from their zipcode to their county using the US Government Housing and Urban Development Office of Policy Development and Research (PDR) HUD-USPS ZIP code crosswalk. Respondents who lived in zipcodes that crossed county boundaries were assigned to counties that contained a larger proportion of the land area of that given zipcode. More information can be found here.

As a robustness check, we also use an alternate measure at the zipcode level collected and estimated by the Union of Concerned Scientists and based on Zillow data on home risk due to sea-level rise. The measure is the projected proportion of homes in a given zipcode that are at risk of flooding due to sea-level rise by 2100. For more information see https://www.ucsusa.org/resources/underwater and here.

B.2 Dependent Variables

B.2.1 Anxiety

Respondents were asked "Below is a list of environmental problems. For each, please indicate how much you personally worry about this problem:" All items had a 4-pt Likert response categories ranging from "A great deal" (4) to "Not at all" (1). The individual questions used for this analysis are:

- Global warming / climate change
- Increasingly severe weather events (forest fires, hurricanes, etc.)
- Melting of glaciers
- Extinction of plant and animal species
- Pollution of air, soil, and water

B.2.2 Policy Attitudes

Respondents were asked "Please indicate how strongly you favor or oppose the following policies?" All items had a 4-pt Likert response categories ranging from strongly favor (4) to strongly oppose (1). The individual questions are:

- Enacting a carbon tax on heavily polluting industries
- Increasing federal fuel efficiency standards for motor vehicles
- Banning use of single-use plastics
- Increase research funding on meat alternatives
- Increase gasoline taxes
- Increase investment to transition to 100% electricity generation from renewable energy sources
- Build national energy efficient smart grid
- Increase investment in projects to capture climate damaging gases

These items were combined into an additive scale (mean = 0.65; sd=0.22) and re-scaled to range between 0 and 1. The items are internally consistent (Cronbach's alpha=0.86) and load well on a single factor. Below are the factor loadings and a correlation matrix for all of the items.

Table C1: Factor Loadings

Variable	Factor Loading
Fuel Efficiency	0.72
Smart Grid	0.70
Carbon Tax	0.72
Plastics	0.57
Capture CO2	0.71
Clean Energy	0.77
Meat Alternatives	0.57
Gas Tax	0.51

Table C2: Correlation Table Individual Policies

	Fuel	Grid	Tax	Plastics	CO2	Energy	Meat	Gas Tax
Fuel Efficiency								
Smart Grid	0.52							
Carbon Tax	0.52	0.5						
Plastics	0.43	0.40	0.42					
Capture CO2	0.51	0.53	0.51	0.37				
Clean Energy	0.53	0.55	0.56	0.41	0.55			
Meat Alternatives	0.40	0.33	0.40	0.36	0.39	0.44		
Gas Tax	0.38	0.28	0.37	0.33	0.30	0.39	0.46	

B.3 California Ballot Proposition

- California Proposition 23, Suspension of Greenhouse Gas Emissions Reduction Law Initiative (2010). A "yes"" vote supported suspending Assembly Bill 32 (AB 32), which required greenhouse gas emissions to be reduced to 1990 levels by 2020, until California's unemployment rate decreases to 5.5% or less for four consecutive quarters. A "no" vote opposed suspending Assembly Bill 32 (AB 32), which required greenhouse gas emissions to be reduced to 1990 levels by 2020. The proposition received only 38.46% support. For more, see https://bit.ly/3NV4QeT

- Washington Carbon Emission Tax and Sales Tax Reduction, Initiative 732 (2016). A "yes" vote supported imposing a carbon emission tax on the sale or use of certain fossil fuels and fossil-fuel-generated electricity. A "no" vote opposed this proposal, keeping the tax structure unchanged. The initiative failed with only 40.75% support. For more, see https://bit.ly/3Hq2jXm

- Florida Solar Energy Subsidies and Personal Solar Use, Amendment 1 (2016). A "yes" vote supported adding a section in the state constitution giving residents of Florida the right to own or lease solar energy equipment for personal use while also enacting constitutional protection for any state or local law, ensuring that residents who do not produce solar energy can abstain from subsidizing its production. A "no" vote opposed constitutionalizing the right to own or lease solar equipment and the protection of laws preventing subsidization of solar energy, thereby leaving the personal use of solar power protected as a right by state statute and not by the constitution. The measure failed to reach the necessary 60% support threshold, receiving just 50.79% support of voters. For more, see https://bit.ly/3Ojkzny.

B.4 Mechanisms

Willingness to move:

- "How willing would you be to move to a different state to find a new job?" (1=Very willing, 2=somewhat willing, 3=not too willing, 4=not at all willing)

Community Ties:

- Below are some statements. Please indicate how strongly you agree or disagree with each: "I have deep ties to my current community" (1=Strongly disagree, 2=Somewhat disagree, 3=Somewhat agree, 4=Strongly agree)

Place-Based Identity:

"Thinking about the area within a mile of your place of residence, please indicate whether you agree or disagree with the following statements":

- "This area is a reflection of me"
- "I don't really fit in with the people who live here"
- "I would move somewhere else if I could"
- "This is my favorite place to be"
- "I really miss it when I am away for too long"
- "I feel happiest when I am here"
- "My job is dependent on being here"

All of the identity scale items had a 4-pt Likert response outcome that ranged from 1=strongly agree to 4=strongly disagree (or vise-versa).

C Regression Tables

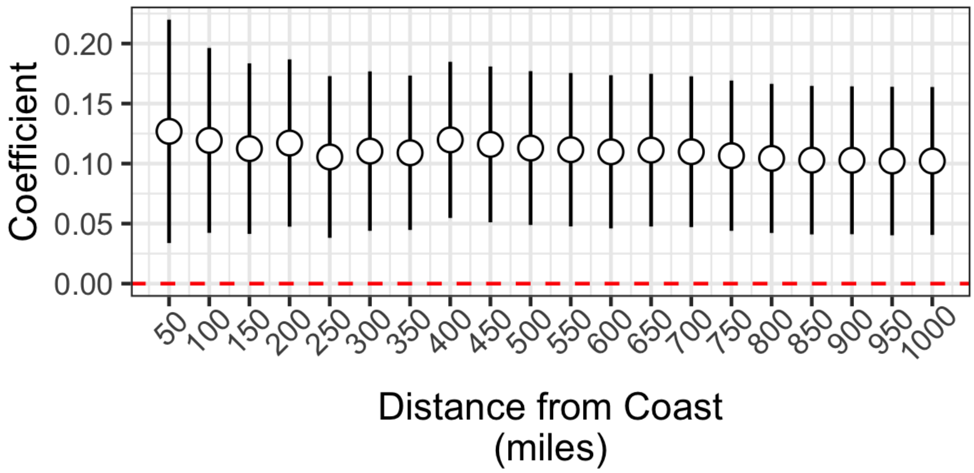


Figure C4: Sample Restriction Based on Distance from Coast

Table C3: Susceptibility and Environmental Anxiety

	Global Warming	Weather	Glaciers	Extinction	Pollution
Intercept	3.75^{***}	3.56^{***}	3.55^{***}	3.63^{***}	3.66^{***}
	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)
Susceptibility	0.30^{**}	0.60^{***}	0.23^{*}	0.23	0.17
	(0.13)	(0.11)	(0.12)	(0.15)	(0.11)
Party ID (R)	-0.78^{***}	-0.58^{***}	-0.59^{***}	-0.41^{***}	-0.46^{***}
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Conservative	-0.64^{***}	-0.51^{***}	-0.59^{***}	-0.53^{***}	-0.48^{***}
	(0.13)	(0.09)	(0.11)	(0.08)	(0.10)
Age	-0.38^{***}	-0.27^{***}	-0.15^{*}	-0.41^{***}	-0.06
	(0.09)	(0.07)	(0.08)	(0.08)	(0.07)
Female	0.13^{***}	0.23^{***}	0.04	0.16^{***}	0.09^{***}
	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)
College	-0.00	0.01	-0.01	-0.02	0.01
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Income 60-125k	-0.06	-0.06	-0.09^{**}	-0.08^{*}	-0.08^{**}
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Income Over 125k	0.11^{**}	0.06	0.07	-0.06	0.00
	(0.05)	(0.05)	(0.06)	(0.06)	(0.05)
Born Again Christian	-0.09^{**}	0.00	-0.04	-0.01	-0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
White	0.02	-0.00	0.04	0.08^{*}	0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
R^2	0.22	0.17	0.14	0.12	0.12
Adj. R^2	0.22	0.17	0.14	0.11	0.11
Num. obs.	2588	2588	2588	2588	2588
RMSE	0.89	0.85	0.91	0.88	0.80
N Clusters	886	886	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C4: Susceptibility and Personal Impact

	Impact You	Impact Poor Cs	Impact Rich Cs
Intercept	0.94***	0.99***	0.89***
	(0.03)	(0.02)	(0.03)
Susceptibility	0.19***	0.08	0.11
	(0.07)	(0.05)	(0.07)
Party ID (R)	−0.32***	−0.20***	−0.30***
	(0.03)	(0.03)	(0.03)
Conservative	−0.21***	−0.24***	−0.19***
	(0.04)	(0.04)	(0.04)
Age	−0.33***	−0.08**	−0.08*
	(0.04)	(0.03)	(0.04)
Female	0.05***	0.04**	0.04**
	(0.02)	(0.02)	(0.02)
College	0.01	0.01	−0.01
	(0.02)	(0.02)	(0.02)
Income 60-125k	−0.02	−0.05***	−0.03
	(0.02)	(0.02)	(0.02)
Income Over 125k	0.09***	−0.04	0.05
	(0.03)	(0.03)	(0.03)
Born Again Christian	0.05***	−0.01	0.01
	(0.02)	(0.02)	(0.02)
White	−0.04*	0.01	0.01
	(0.02)	(0.02)	(0.02)
R^2	0.19	0.11	0.12
Adj. R^2	0.18	0.11	0.12
Num. obs.	2587	2586	2587
RMSE	0.44	0.40	0.44
N Clusters	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C5: Susceptibility, Anxiety, and Personal Impact

	Worry GW	Impact You	Worry GW	Impact You	Worry GW	Impact You	Worry GW	Impact You
Intercept	3.77^{***}	0.95^{***}	3.81^{***}	0.94^{***}	3.81^{***}	0.96^{***}	3.83^{***}	0.96^{***}
	(0.06)	(0.03)	(0.06)	(0.03)	(0.06)	(0.03)	(0.06)	(0.03)
Susceptibility Fires	0.13	0.11^{**}						
	(0.10)	(0.04)						
Susceptibility Heat			-0.05	0.06				
			(0.09)	(0.05)				
Susceptibility Wet Bulb					-0.06	0.02		
					(0.09)	(0.04)		
Susceptibility Farm Crop Yields							-0.12^{*}	-0.01
							(0.07)	(0.04)
Party ID (R)	-0.80^{***}	-0.33^{***}	-0.79^{***}	-0.33^{***}	-0.79^{***}	-0.33^{***}	-0.78^{***}	-0.33^{***}
	(0.06)	(0.03)	(0.06)	(0.03)	(0.06)	(0.03)	(0.06)	(0.03)
Conservative	-0.64^{***}	-0.20^{***}	-0.64^{***}	-0.21^{***}	-0.64^{***}	-0.21^{***}	-0.64^{***}	-0.20^{***}
	(0.13)	(0.04)	(0.13)	(0.04)	(0.13)	(0.04)	(0.13)	(0.04)
Age	-0.39^{***}	-0.33^{***}	-0.39^{***}	-0.33^{***}	-0.39^{***}	-0.33^{***}	-0.39^{***}	-0.33^{***}
	(0.10)	(0.04)	(0.10)	(0.04)	(0.10)	(0.04)	(0.09)	(0.04)
Female	0.13^{***}	0.05^{**}	0.13^{***}	0.04^{**}	0.13^{***}	0.04^{**}	0.13^{***}	0.04^{**}
	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)
College	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01
	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)
Income 60-125k	-0.05	-0.02	-0.05	-0.02	-0.05	-0.02	-0.05	-0.02
	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)
Income Over 125k	0.12^{**}	0.10^{***}	0.12^{**}	0.10^{***}	0.13^{**}	0.10^{***}	0.11^{**}	0.10^{***}
	(0.05)	(0.03)	(0.05)	(0.03)	(0.05)	(0.03)	(0.05)	(0.03)
Born Again Christian	-0.09^{**}	0.05^{**}	-0.09^{**}	0.05^{**}	-0.09^{**}	0.05^{**}	-0.09^{**}	0.05^{**}
	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)
White	0.02	-0.04^{*}	0.02	-0.04^{*}	0.02	-0.04^{*}	0.01	-0.04^{*}
	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)	(0.04)	(0.02)
R^2	0.22	0.18	0.22	0.18	0.22	0.18	0.22	0.18
Adj. R^2	0.22	0.18	0.22	0.18	0.22	0.18	0.22	0.18
Num. obs.	2588	2587	2588	2587	2588	2587	2588	2587
RMSE	0.89	0.44	0.89	0.44	0.89	0.44	0.89	0.44
N Clusters	886	886	886	886	886	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C6: Susceptibility and Policy Support

	Support Policy	Support Policy	Support Policy	Support Policy
Intercept	0.81^{***}	0.81^{***}	0.81^{***}	0.81^{***}
	(0.01)	(0.02)	(0.01)	(0.01)
Susceptibility Fires	-0.01			
	(0.02)			
Susceptibility Heat		0.00		
		(0.02)		
Susceptibility Wet Bulb			0.01	
			(0.02)	
Susceptibility Crop Yields				-0.00
				(0.02)
Party ID (R)	-0.17^{***}	-0.17^{***}	-0.17^{***}	-0.17^{***}
	(0.02)	(0.02)	(0.02)	(0.02)
Conservative	-0.20^{***}	-0.20^{***}	-0.20^{***}	-0.20^{***}
	(0.03)	(0.03)	(0.03)	(0.03)
Age	-0.04^{*}	-0.04^{*}	-0.04^{*}	-0.04^{*}
	(0.02)	(0.02)	(0.02)	(0.02)
Female	-0.01^{*}	-0.01^{*}	-0.01^{*}	-0.01^{*}
	(0.01)	(0.01)	(0.01)	(0.01)
College	0.04^{***}	0.04^{***}	0.04^{***}	0.04^{***}
	(0.01)	(0.01)	(0.01)	(0.01)
Income 60-125k	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Income Over 125k	0.03^{*}	0.03^{*}	0.03^{*}	0.03^{**}
	(0.01)	(0.01)	(0.01)	(0.01)
Born Again Christian	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
White	0.03^{***}	0.03^{***}	0.03^{***}	0.03^{***}
	(0.01)	(0.01)	(0.01)	(0.01)
R^2	0.26	0.26	0.26	0.26
Adj. R^2	0.26	0.26	0.26	0.26
Num. obs.	2584	2584	2584	2584
RMSE	0.19	0.19	0.19	0.19
N Clusters	885	885	885	885

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Table C7: Statistical models

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C8: Susceptibility and Policy Support

	Support Policy	Support Policy
Intercept	0.62^{***}	0.79^{***}
	(0.01)	(0.01)
Susceptibility	0.19^{***}	0.10^{***}
	(0.05)	(0.03)
Party ID (R)		-0.16^{***}
		(0.02)
Conservative		-0.20^{***}
		(0.03)
Age		-0.04^{**}
		(0.02)
Female		-0.01
		(0.01)
College		0.03^{***}
		(0.01)
Income 60-125k		-0.01
		(0.01)
Income Over 125k		0.02
		(0.01)
Born Again Christian		-0.01
		(0.01)
White		0.03^{***}
		(0.01)
R^2	0.02	0.27
Adj. R^2	0.02	0.26
Num. obs.	2846	2584
RMSE	0.21	0.19
N Clusters	932	885

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C9: Susceptibility and Policy Support

	Support Policy
Intercept	0.81^{***}
	(0.04)
Susceptibility	0.09^{***}
	(0.03)
Pct White	-0.02
	(0.02)
Pct College	0.08^{**}
	(0.03)
Pct Unemp	-0.03
	(0.05)
Median Income	-0.10^{**}
	(0.05)
Party ID (R)	-0.16^{***}
	(0.02)
Conservative	-0.20^{***}
	(0.03)
Age	-0.03^{*}
	(0.02)
Female	-0.01
	(0.01)
College	0.03^{***}
	(0.01)
Income 60-125k	-0.02
	(0.01)
Income Over 125k	0.02
	(0.01)
Born Again Christian	-0.01
	(0.01)
White	0.03^{***}
	(0.01)
R^2	0.27
Adj. R^2	0.26
Num. obs.	2584
RMSE	0.19
N Clusters	885

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

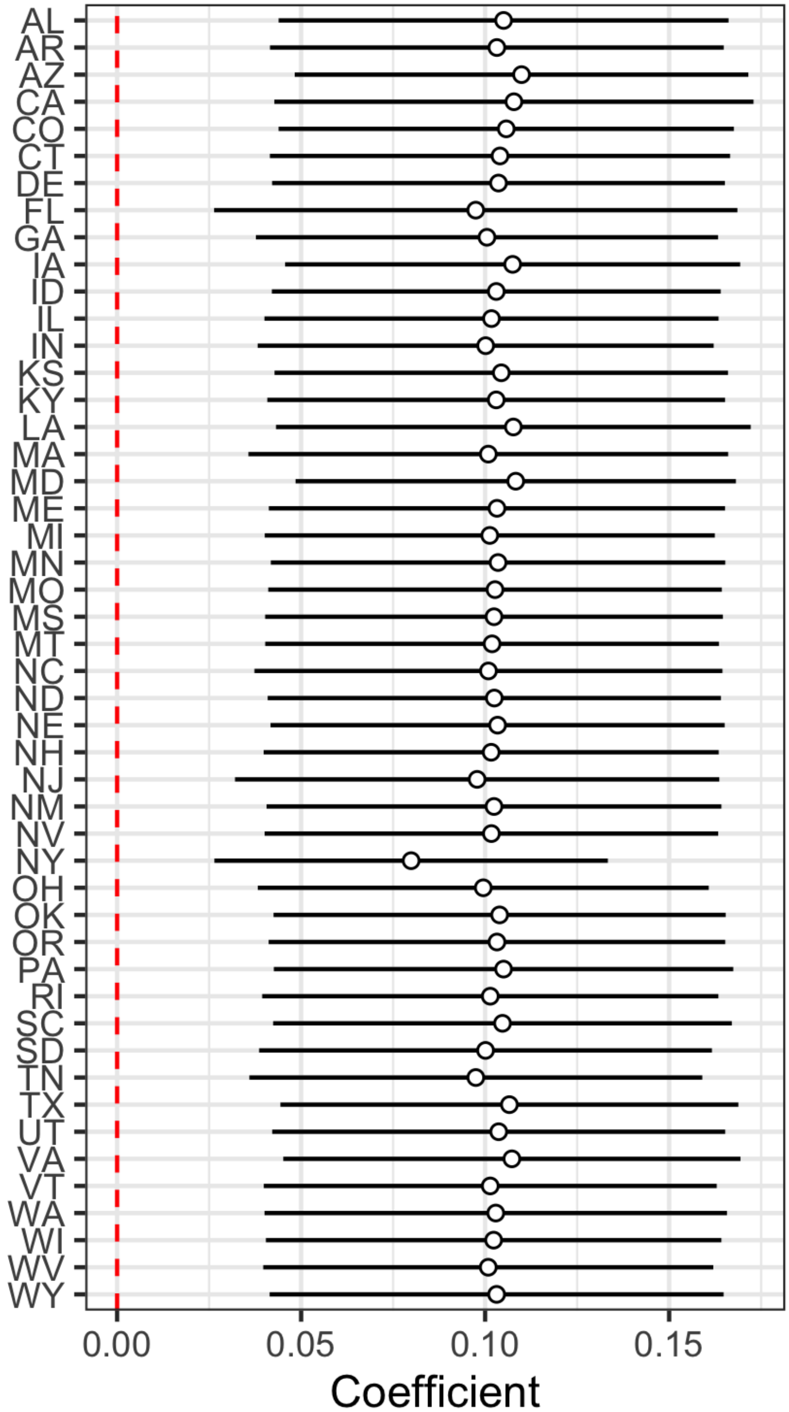


Figure C5: Leave One Out Analysis

Table C10: Sensitivity Analysis

Outcome: *Climate Mitigation Policy*

Treatment:	Est.	S.E.	t-value	$R^2_{Y\sim D\mid\mathbf{X}}$	$RV_{q=1}$	$RV_{q=1,\alpha=0.05}$
Sea-Level Rise Susceptibility	0.103	0.024	4.201	0.7%	7.9%	4.3%
df = 2573	*Bound (1x 7-pt PID)*: $R^2_{Y\sim Z\mid\mathbf{X},D} = 6.9\%$, $R^2_{D\sim Z\mid\mathbf{X}} = 0.5\%$					

Table C11: Susceptibility and Policy Support

	Support Policy
Intercept	0.81^{***}
	(0.01)
Susceptibility (Zip)	0.11^{**}
	(0.04)
Party ID (R)	-0.17^{***}
	(0.02)
Conservative	-0.19^{***}
	(0.02)
Age	-0.04^{**}
	(0.02)
Female	-0.01^{*}
	(0.01)
College	0.04^{***}
	(0.01)
Income 60-125k	-0.01
	(0.01)
Income Over 125k	0.02^{*}
	(0.01)
Born Again Christian	-0.01
	(0.01)
White	0.03^{***}
	(0.01)
R^2	0.26
Adj. R^2	0.26
Num. obs.	2703
RMSE	0.19
N Clusters	2266

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at zip code level.

Table C12: Susceptibility and Policy Support (Replication)

	Support Policy
Intercept	0.91^{***}
	(0.02)
Susceptibility	0.07^{***}
	(0.02)
Party ID (R)	-0.03^{***}
	(0.00)
Conservative	-0.06^{***}
	(0.01)
Age	-0.00^{***}
	(0.00)
Female	-0.02^{***}
	(0.01)
College	0.03^{***}
	(0.01)
Income 60-125k	0.01
	(0.01)
Income Over 125k	0.04^{***}
	(0.01)
White	0.02^{***}
	(0.01)
Wave 2	-0.01
	(0.01)
Wave 3	-0.01
	(0.01)
R^2	0.32
Adj. R^2	0.32
Num. obs.	3057
RMSE	0.19
N Clusters	980

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C13: Susceptibility and Policy Support (Replication)

	Support Green New Deal
Intercept	0.82^{***}
	(0.01)
Susceptibility	0.11^{***}
	(0.02)
Party ID (R)	-0.04^{***}
	(0.00)
Conservative	-0.10^{***}
	(0.00)
Age	-0.00^{***}
	(0.00)
Female	-0.07^{***}
	(0.00)
College	0.06^{***}
	(0.00)
Family Income	0.00^{***}
	(0.00)
White	0.01^{***}
	(0.00)
R^2	0.14
Adj. R^2	0.14
Num. obs.	131683
RMSE	0.45
N Clusters	2606

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Linear probability model coefficients with hetereoskedastic-robust standard errors clustered at the county level. Outcome is a dichotomous measure of support for Green New Deal.

Table C14: Susceptibility and Policy Support (Replication)

	Policy Scale
Intercept	1.26^{***}
	(0.01)
Susceptibility	0.06^{***}
	(0.02)
Party ID (R)	-0.05^{***}
	(0.00)
Conservative	-0.11^{***}
	(0.00)
Age	-0.00^{***}
	(0.00)
Male	-0.05^{***}
	(0.01)
College	0.01^{*}
	(0.01)
Family Income	-0.00^{***}
	(0.00)
White	0.01^{*}
	(0.01)
R^2	0.36
Adj. R^2	0.36
Num. obs.	14703
RMSE	0.33
N Clusters	1807

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

OLS regression coefficients with heteroskedastic robust standard errors clustered at county level. Outcome is an additive scale of dichotomous support for 3 items: "Give the Environmental Protection Agency power to regulate Carbon Dioxide emissions", "Require that each state use a minimum amount of renewable fuels (wind, solar, and hydroelectric) in the generation of electricity even if electricity prices increase a little" and "Strengthen the Environmental Protection Agency enforcement of the Clean Air Act and Clean Water Act even if it costs U.S. jobs"

Table C15: Falsification Tests

	BlueLM	Racial Resentment	FT Repubs	FT Prius	FT Pickup
Intercept	5.19^{***}	1.19^{***}	1.40^{***}	3.15^{***}	2.33^{***}
	(0.13)	(0.08)	(0.05)	(0.05)	(0.05)
Susceptibility	-0.26	0.02	0.27	0.20	-0.01
	(0.38)	(0.17)	(0.20)	(0.13)	(0.14)
Party ID (R)	-0.51^{***}	1.19^{***}	1.34^{***}	-0.39^{***}	0.24^{***}
	(0.18)	(0.08)	(0.09)	(0.05)	(0.07)
Conservative	-1.01^{***}	1.08^{***}	0.62^{***}	-0.23^{***}	0.36^{***}
	(0.18)	(0.16)	(0.08)	(0.08)	(0.07)
Age	-0.74^{***}	1.03^{***}	-0.30^{***}	0.14	0.05
	(0.20)	(0.12)	(0.09)	(0.09)	(0.08)
Female	0.04	0.11^{**}	-0.03	-0.02	-0.08^{**}
	(0.10)	(0.05)	(0.04)	(0.03)	(0.03)
College	-0.20^{**}	-0.27^{***}	-0.04	0.10^{**}	-0.09^{***}
	(0.10)	(0.06)	(0.05)	(0.04)	(0.03)
Income 60-125k	-0.26^{**}	0.09	0.06	-0.06^{*}	0.02
	(0.11)	(0.06)	(0.04)	(0.03)	(0.04)
Income Over 125k	-0.75^{***}	-0.16^{**}	0.34^{***}	0.02	0.20^{***}
	(0.14)	(0.07)	(0.05)	(0.06)	(0.07)
Born Again Christian	-0.59^{***}	-0.06	0.30^{***}	0.09^{**}	0.29^{***}
	(0.12)	(0.05)	(0.06)	(0.03)	(0.05)
White	-0.40^{***}	0.26^{***}	0.04	0.04	0.09^{**}
	(0.11)	(0.06)	(0.05)	(0.04)	(0.04)
R^2	0.11	0.33	0.39	0.06	0.10
Adj. R^2	0.11	0.32	0.39	0.06	0.10
Num. obs.	2587	2588	2587	2588	2583
RMSE	2.13	1.21	0.82	0.78	0.78
N Clusters	886	886	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C16: Falsification Tests

	Altruism	Future Orient	Anthropocentric	Nature	Recreation
Intercept	0.40***	0.66***	0.72***	0.70***	0.27***
	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Susceptibility	−0.14***	0.00	−0.01	−0.07**	−0.05**
	(0.03)	(0.03)	(0.04)	(0.03)	(0.02)
Party ID (R)	0.05**	−0.05***	−0.06***	0.03	0.06***
	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Conservative	−0.09***	0.02	−0.17***	−0.02	−0.01
	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Age	0.10***	0.02	0.01	0.09***	−0.21***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Female	0.02	0.04***	0.07***	0.02**	−0.02**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
College	0.02	0.02***	−0.01	−0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income 60-125k	−0.01	0.02***	−0.02*	−0.02**	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income Over 125k	−0.00	0.07***	−0.06***	−0.05***	0.05***
	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)
Born Again Christian	−0.01	0.04***	−0.13***	−0.02**	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
White	0.05***	0.02	0.03**	0.06***	0.06***
	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
R^2	0.04	0.05	0.20	0.06	0.10
Adj. R^2	0.04	0.05	0.20	0.06	0.09
Num. obs.	2588	2586	2587	2587	2588
RMSE	0.26	0.19	0.21	0.20	0.18
N Clusters	886	884	886	886	886

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C17: Robustness Checks: Living Near Water

	Policy Scale	Policy Scale
Intercept	0.27^{***}	0.80^{***}
	(0.01)	(0.01)
Coastal	-0.01^{*}	
	(0.01)	
Pct Water		0.03
		(0.03)
Party ID (R)	0.06^{***}	-0.17^{***}
	(0.01)	(0.01)
Conservative	-0.01	-0.19^{***}
	(0.01)	(0.03)
Age	-0.22^{***}	-0.04^{**}
	(0.01)	(0.02)
Female	-0.02^{***}	-0.01^{*}
	(0.01)	(0.01)
College	0.01	0.04^{***}
	(0.01)	(0.01)
Income 60-125k	0.01	-0.01
	(0.01)	(0.01)
Income Over 125k	0.06^{***}	0.02
	(0.01)	(0.01)
Born Again Christian	0.01	-0.01
	(0.01)	(0.01)
White	0.06^{***}	0.03^{***}
	(0.01)	(0.01)
R^2	0.10	0.26
Adj. R^2	0.10	0.26
Num. obs.	2707	2701
RMSE	0.18	0.19
N Clusters	927	925

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C18: Robustness Checks: State and Region FEs

	Policy Scale	Policy Scale
Intercept	0.80^{***}	0.76^{***}
	(0.02)	(0.03)
Susceptibility	0.09^{***}	0.11^{***}
	(0.03)	(0.04)
Party ID (R)	-0.16^{***}	-0.16^{***}
	(0.02)	(0.01)
Conservative	-0.20^{***}	-0.20^{***}
	(0.03)	(0.03)
Age	-0.04^{**}	-0.04^{**}
	(0.02)	(0.02)
Female	-0.01	-0.01
	(0.01)	(0.01)
College	0.03^{***}	0.03^{***}
	(0.01)	(0.01)
Income 60-125k	-0.02	-0.02^{*}
	(0.01)	(0.01)
Income Over 125k	0.02	0.02
	(0.01)	(0.01)
Born Again Christian	-0.01	-0.01
	(0.01)	(0.01)
White	0.03^{***}	0.03^{***}
	(0.01)	(0.01)
Region FEs?	X	
State FEs?		X
R^2	0.27	0.28
Adj. R^2	0.26	0.26
Num. obs.	2584	2584
RMSE	0.19	0.19
N Clusters	885	885

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C19: Economic Moderators

	Support Policy	Support Policy	Support Policy	Support Policy	Support Policy
Intercept	0.92^{***}	0.94^{***}	0.91^{***}	0.88^{***}	0.88^{***}
	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)
Susceptibility	0.04	0.12^{***}	0.07^{***}	0.10^{***}	0.09^{**}
	(0.03)	(0.03)	(0.02)	(0.04)	(0.04)
Party ID (R)	-0.03^{***}	-0.04^{***}	-0.03^{***}	-0.03^{***}	-0.03^{***}
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Conservative	-0.06^{***}	-0.05^{***}	-0.06^{***}	-0.06^{***}	-0.06^{***}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Age	-0.00^{***}	-0.00^{***}	-0.00^{***}	-0.00^{***}	-0.00^{***}
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Female	-0.02^{***}	-0.01	-0.02^{***}	-0.02^{***}	-0.02^{***}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
College	0.03^{***}	0.01	0.03^{***}	0.03^{***}	0.03^{***}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income 60-125k	0.00	0.01	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Income Over 125k	0.04^{***}	0.04^{***}	0.05^{***}	0.04^{***}	0.03^{***}
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
White	0.02^{**}	0.01	0.03^{***}	0.03^{***}	0.03^{***}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Wave 2	-0.01	-0.00	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Wave 3	-0.00	0.01	-0.01	-0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Homeowner	0.00				
	(0.01)				
Susceptibility * Homeowner	0.06				
	(0.03)				
Insurance Cost		0.00			
		(0.00)			
Susceptibility * Insurance Cost		-0.00^{**}			
		(0.00)			
Susceptibility * Income 60-125			0.01		
			(0.04)		
Susceptibility * Income over 125			-0.05		
			(0.05)		
N Hotels 2				0.04^{***}	
				(0.01)	
N Hotels 3				0.03^{**}	
				(0.01)	
N Hotels 4				0.04^{**}	
				(0.02)	
Susceptibility * N Hotels 2				-0.09^{*}	
				(0.05)	
Susceptibility * N Hotels 3				-0.03	
				(0.05)	
Susceptibility * N Hotels 4				-0.06	
				(0.07)	
Tourism Payroll 2					0.02^{**}
					(0.01)
Tourism Payroll 3					0.03^{**}
					(0.01)
Tourism Payroll 4					0.04^{**}
					(0.02)
Susceptibility * Tourism Payroll 2					-0.04
					(0.05)
Susceptibility * Tourism Payroll 3					-0.06
					(0.06)
Susceptibility * Tourism Payroll 4					-0.04
					(0.07)
R^2	0.32	0.40	0.32	0.32	0.32
Adj. R^2	0.32	0.39	0.32	0.32	0.32
Num. obs.	2922	1577	3057	2920	2920
RMSE	0.19	0.19	0.19	0.19	0.19
N Clusters	961	673	980	867	867

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.

Table C20: Identity Moderators

	Support Policy	Support Policy	Support Policy
Intercept	0.93^{***}	0.90^{***}	0.92^{***}
	(0.02)	(0.02)	(0.02)
Susceptibility	0.01	−0.02	0.04
	(0.05)	(0.04)	(0.04)
Party ID (R)	-0.03^{***}	-0.03^{***}	-0.03^{***}
	(0.00)	(0.00)	(0.00)
Conservative	-0.05^{***}	-0.05^{***}	-0.06^{***}
	(0.01)	(0.01)	(0.01)
Age	−0.00	-0.00^{***}	-0.00^{***}
	(0.00)	(0.00)	(0.00)
Female	-0.02^{**}	-0.02^{***}	-0.02^{***}
	(0.01)	(0.01)	(0.01)
College	0.03^{***}	0.03^{***}	0.03^{***}
	(0.01)	(0.01)	(0.01)
Income 60-125k	0.00	0.00	0.01
	(0.01)	(0.01)	(0.01)
Income Over 125k	0.03^{***}	0.03^{**}	0.04^{***}
	(0.01)	(0.01)	(0.01)
White	0.02^{***}	0.02^{***}	0.02^{**}
	(0.01)	(0.01)	(0.01)
Wave 2	−0.01	−0.00	−0.01
	(0.01)	(0.01)	(0.01)
Wave 3	−0.00	−0.01	−0.01
	(0.01)	(0.01)	(0.01)
Unwill Move 2	-0.06^{***}		
	(0.01)		
Unwill Move 3	-0.07^{***}		
	(0.01)		
Unwill Move 4	-0.10^{***}		
	(0.01)		
Susceptibility * Unwill Move 2	0.07		
	(0.05)		
Susceptibility * Unwill Move 3	0.06		
	(0.05)		
Susceptibility * Unwill Move 4	0.10^{*}		
	(0.06)		
Community Ties 2		−0.01	
		(0.01)	
Community Ties 3		−0.00	
		(0.01)	
Community Ties 4		0.06^{***}	
		(0.01)	
Susceptibility * Community Ties 2		0.08	
		(0.05)	
Susceptibility * Community Ties 3		0.12^{**}	
		(0.05)	
Susceptibility * Community Ties 4		0.09^{*}	
		(0.05)	
Place ID 2			-0.03^{**}
			(0.01)
Place ID 3			-0.03^{**}
			(0.01)
Place ID 4			-0.02^{*}
			(0.01)
Susceptibility * Place ID 2			0.01
			(0.04)
Susceptibility * Place ID 3			−0.01
			(0.04)
Susceptibility * Place ID 4			0.11^{**}
			(0.04)
R^2	0.33	0.34	0.33
Adj. R^2	0.33	0.33	0.33
Num. obs.	3010	2860	2925
RMSE	0.19	0.19	0.19
N Clusters	976	949	961

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Note: OLS coefficients with heteroskedastic robust standard errors clustered at county level.