Retrospection, Fairness, and Economic Shocks: How Do Voters Judge Policy Responses to Natural Disasters?

Michael M. Bechtel Massimo Mannino

Online Appendix

I. Robustness

A. *Personal Affectedness and Preferences over Relief Spending*

Experiencing natural disasters does not only constitute a threat to individuals' economic survival, but can also put them in a life-and-death situation. In this sense, disasters resemble other potentially life-changing experiences that cause economic and social disruption, give rise to powerful emotions such as fear and anger, and can severely traumatize individuals. The mere threat of such experiences can fundamentally alter how individuals perceive the underlying events and their views about them. Consequently, having been directly affected by a natural disaster in the past may also influence citizens' preferences over the allocation of relief aid. We explore the sensitivity of our results to whether a respondent has been personally affected. Overall, 37% of the respondents included in our sample report to have been personally affected at least once since 2006 (see Table A.1 in the Appendix for descriptive statistics on this question). Figure A.3 in the Appendix reports the treatment effects separately for respondents that indicated to have been affected by a disaster in the past ten years and those that did not. The results are very similar for both subgroups.

B. *Disaster Relief Allocations and Partisan Identification*

Given the increasing prevalence of partisan cleavages in public policy attitudes and voting behavior, one may ask to what extent the results differ by respondents' own partisan identification? We estimate our results separately for respondents that self-identified with either the Democratic or the Republican party.[1] Figure **??** in the appendix reports the results. We find that a surprisingly clear consensus exists among Republicans and Democrats when examining the causal effects: They generally agree that the distribution of relief aid should reflect affectedness and need, largely to the same extent. The only clear difference we find relates to the importance of electoral reciprocity. Republicans allocate $250,000 more relief aid to counties that have provided strong electoral support (70% Republican vote share) for the Republican presidential candidate.

C. *Censored Nature of Outcome Variable, Dependence between Relief Allocation Choices, and Attentiveness*

Next, we explore whether our results remain intact when using an estimation technique that accounts for the boundedness of our dependent variable. In our relief conjoint, the outcome variable is bounded on the interval

[1] This variable is based on the standard survey question: "Is there a particular party you feel closer to than all the other parties?".

(0,10) since the minimum amount of relief aid respondents can allocate is $0 million and the maximum is $10 million. We therefore estimate the treatment effects using a tobit model which accounts for the boundedness of our dependent variables. The results reported in Figure A.8 suggest that our results remain virtually identical.

As is common in conjoint designs, there exists a built-in dependency between respondents' decisions since individuals make choices based on a binary comparison between two affected counties based on their theoretically relevant characteristics. Moreover, our outcome variable is by definition compositional because the amount spent on one county reduces the amount that can be allocated to the remaining county. We address these issues by estimating the main results using the z-transformed amount of relief aid as our dependent variable. We remove the bounds by computing the relative share of relief aid allocated to county A and county B for each conjoint comparison (e.g. if county A received $3 million and county B received $7 million, the shares are .3 and .7, respectively). We then compute the corresponding z-value using the inverse cumulative distribution function of the standard normal distribution. Figure A.10 in the Appendix shows the results, which are virtually identical to those reported above. In addition, we assess the robustness of our results to only using data from individuals' spending decision on one of the two counties which means that we reduce the number of observations by 50%. The results in Figure A.11 in the Appendix show that our findings remain unchanged.

Finally, we evaluate the sensitivity of our results to respondents' level of attention as measured by a screener question and the time respondents needed to complete the conjoint component of our survey. As Figures A.4 and A.5 in the Appendix show, our results remain largely unaffected in those robustness tests.

D. Interactions between Affectedness and Need

Voters could be sensitive to both economic damage and poverty levels because they use this information to make inferences about an affected region's population size. For example, if a poor region experiences large economic damage, this could be interpreted to indicate that a large number of individuals was affected by the disaster. This, in turn, may increase voters' preferred amount of relief aid. We test this argument in two ways. We address this question by re-estimating the main results conditional on the level of damage and compare the causal effects of a region's income on respondents' relief allocation choices. Appendix Table A.10 reports the results. We find little to no evidence for the argument that the sensitivity to poverty (as measured by lower average household income) decreases as damage levels increase. Second, we reestimate the effects in a model that includes a full set of interaction terms between income and damage indicators. With one exception, none of these additional coefficients is significantly different from zero. Overall, respondents' sensitivities to damage and economic conditions are unlikely to reflect concerns related to population size.

E. Changing the Reference Groups and Regional Differences

Recent research argues that subgroup estimations from experimental results may be sensitive to which condition is used as the reference category (**?**). We re-estimated the main and subgroup results reported above using the opposite attribute level as the reference group. The results reported in Table A.7 in the Appendix suggest that the subgroup differences are very consistent with our initial subgroup findings on the theoretical mechanisms. Previous work has documented regional differences in environmental policy preferences when comparing the American South with the rest of the United States (**?**). As Appendix Figure A.7 shows, our results for respondents who live in the South are quite similar to those who live in the rest of the United States.[2]

[2]The US Census Bureau defines the Southern United States as Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas.

II. Appendix Tables

Table A.1: Descriptive Statistics: Reported Personal and Household Affectedness

Event	**Myself**	**Other Household members**
Not affected	51%	57%
Closed/restricted roads or (partial) shutdown of public transportation	37%	28%
Shutdown of school/university	23%	20%
Communication problems	26%	20%
Restricted access to food or water	18%	15%
Evacuation	14%	13%
Financial loss	19%	15%
Injury	13%	12%

Note: The table reports the share of respondents who indicated to have been affected by a specific event. The question wording is: "In the past years, natural disasters such as tornadoes, floods, earthquakes, droughts, and other adverse weather events have affected several regions in the United States. We are interested in learning about whether you have experienced or not experienced one or more natural disasters. Please indicate below whether you or members of your household were affected by any of the following events as a consequence of a natural disaster in the past ten years (since 2006). If you or members of your household were not affected please select 'Not affected'. If you were affected, please select all that apply." N = 2,618.

Table A.2: Fairness Norms: Descriptive Statistics (N=2,618)

Variable	Mean	Median	Std. Dev.	Min.	Max.
Affectedness					
Question: Those who are more strongly affected should receive more support than those who are less affected Scale: 1 (completely disagree) - 10 (completely agree)	7.2	8.0	2.7	1	10
Need					
Question: Those who are richer should receive less support than those who are poorer even if they are equally affected Scale: 1 (completely disagree) - 10 (completely agree)	5.7	6.0	2.8	1	10
Electoral Reciprocity					
Question: Governments should prioritize the needs of those who voted for them Scale: 1 (completely disagree) - 10 (completely agree)	4.8	5.0	3.1	1	10

Table A.3: Socio-Demographics of the Target Population, Weighted Sample, and Raw Sample (in %)

	Population	Weighted Sample	Raw Sample
Age: 18-24	12.6	12.7	16.8
Age: 25-44	34.2	34.2	35.0
Age: 45-64	33.9	33.8	30.6
Age: 65+	19.3	19.3	17.5
Gender: Male	48.7	48.7	47.3
Gender: Female	51.3	51.3	52.7
Education: Less than High School	12.2	12.2	10.6
Education: High School Degree	29.6	29.6	28.3
Education: Some College	28.4	28.5	31.6
Education: Bachelor's Degree	19.2	19.2	18
Education: Advanced Degree	10.6	10.5	11.3

Note: The table reports the distribution of socio-demographic characteristics in the population, the raw sample, and the weighted sample. N = 2,618. The population margins are based on the 2016 Current Population Survey, see `http://www.census.gov/cps/data/cpstablecreator.html`.

Table A.4: The Causal Effects of County Characteristics on Relief Spending Preferences: Full Subgroup Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Fairness Norm						
		Affectedness		Need		Electoral Reciprocity	
	Main	Low	High	Low	High	Low	High
Damage: \$1 million	0.427***	0.271***	0.583***	0.519***	0.339***	0.534***	0.323***
	(0.046)	(0.057)	(0.071)	(0.063)	(0.066)	(0.068)	(0.061)
Damage: \$4 million	0.724***	0.445***	1.003***	0.817***	0.639***	0.915***	0.536***
	(0.047)	(0.058)	(0.073)	(0.069)	(0.065)	(0.070)	(0.063)
Damage: \$24 million	1.217***	0.771***	1.668***	1.362***	1.078***	1.483***	0.951***
	(0.052)	(0.063)	(0.081)	(0.074)	(0.073)	(0.077)	(0.069)
Fatalities: 5	0.095***	0.045	0.151***	0.061	0.127***	0.053	0.138***
	(0.029)	(0.037)	(0.044)	(0.039)	(0.043)	(0.040)	(0.041)
Income: \$70,000	0.128***	0.120**	0.141**	0.083	0.172***	0.153***	0.103*
	(0.040)	(0.050)	(0.062)	(0.056)	(0.058)	(0.058)	(0.057)
Income: \$40,000	0.332***	0.247***	0.416***	0.200***	0.465***	0.415***	0.245***
	(0.041)	(0.053)	(0.061)	(0.056)	(0.059)	(0.058)	(0.057)
Income: \$10,000	0.507***	0.457***	0.560***	0.320***	0.693***	0.647***	0.367***
	(0.044)	(0.056)	(0.067)	(0.060)	(0.063)	(0.063)	(0.060)
Unemployment Rate: 5%	-0.013	-0.023	-0.012	-0.030	0.008	-0.025	-0.007
	(0.040)	(0.051)	(0.060)	(0.055)	(0.057)	(0.057)	(0.055)
Unemployment Rate: 7%	0.037	-0.031	0.097*	0.035	0.035	-0.026	0.097*
	(0.039)	(0.053)	(0.058)	(0.054)	(0.057)	(0.054)	(0.057)
Unemployment Rate: 9%	0.096**	0.072	0.116*	-0.009	0.196***	0.044	0.132**
	(0.041)	(0.054)	(0.061)	(0.059)	(0.056)	(0.056)	(0.059)
40% Democrat	-0.056	-0.164***	0.067	-0.120*	0.003	0.028	-0.131**
	(0.045)	(0.061)	(0.066)	(0.063)	(0.064)	(0.064)	(0.064)
30% Democrat	0.010	-0.063	0.097	-0.008	0.022	0.081	-0.060
	(0.046)	(0.061)	(0.068)	(0.065)	(0.063)	(0.067)	(0.061)
60% Democrat	-0.059	-0.118**	0.014	-0.093	-0.027	0.033	-0.149**
	(0.044)	(0.055)	(0.068)	(0.061)	(0.062)	(0.063)	(0.060)
70% Democrat	0.017	-0.066	0.108*	-0.033	0.059	0.105*	-0.066
	(0.043)	(0.056)	(0.065)	(0.060)	(0.062)	(0.063)	(0.059)
Constant	4.105***	4.472***	3.728***	4.190***	4.020***	3.889***	4.325***
	(0.060)	(0.080)	(0.089)	(0.084)	(0.087)	(0.086)	(0.084)
Observations	20,944	10,472	10,472	10,472	10,472	10,472	10,472
R-squared	0.055	0.032	0.083	0.062	0.054	0.079	0.036

Note: OLS coefficients shown with robust standard errors clustered by respondent in parenthesis (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Reference categories for the respective attributes: Damage: \$100,000, Fatalities: 0, Income: \$100,000, Unemployment Rate: 3%, 50% Democrat. Since Model 2 is only based on conjoint tasks in which the total damage across the two scenarios was equal to or less than \$10 million, the treatment indicator for the \$24 million attribute level has to be excluded.

Table A.5: The Causal Effects of County Characteristics on Relief Spending Preferences: Subgroup Results by Alternative Measure of Electoral Reciprocity Fairness (Conjoint Experiment)

	(1)	(2)
	Electoral Reciprocity	
	Low	High
Damage: $1 million	0.443***	0.410***
	(0.066)	(0.064)
Damage: $4 million	0.729***	0.720***
	(0.069)	(0.065)
Damage: $24 million	1.214***	1.223***
	(0.075)	(0.072)
Fatalities: 5	0.050	0.139***
	(0.040)	(0.042)
Income: $70,000	0.147***	0.107*
	(0.057)	(0.057)
Income: $40,000	0.371***	0.291***
	(0.059)	(0.057)
Income: $10,000	0.542***	0.470***
	(0.063)	(0.061)
Unemployment Rate: 5%	0.004	-0.034
	(0.056)	(0.056)
Unemployment Rate: 7%	0.022	0.050
	(0.055)	(0.056)
Unemployment Rate: 9%	0.048	0.142**
	(0.056)	(0.059)
40% Democrat	-0.052	-0.058
	(0.065)	(0.063)
30% Democrat	0.044	-0.023
	(0.065)	(0.063)
60% Democrat	-0.062	-0.054
	(0.065)	(0.059)
70% Democrat	0.031	0.005
	(0.064)	(0.059)
Constant	4.107***	4.104***
	(0.086)	(0.085)
Observations	10,472	10,472
R-squared	0.055	0.056

Note: OLS coefficients shown with robust standard errors clustered by respondent in parenthesis (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Reference categories for the respective attributes: Damage: $100,000, Fatalities: 0, Income: $100,000, Unemployment Rate: 3%, 50% Democrat. The alternative measure of support for electoral reciprocity fairness is based on the question: "How strongly do you agree or disagree with the following statement: 'Politics is about voting for those candidates or parties that provide me with the most policy benefits'." Respondents' answers on a 1 (strongly disagree)-10 (strongly agree) scale were converted into a binary indicator using the median as the cutoff. The indicator variable is 1 for those whose level of agreement with the statement was greater than the median and is zero otherwise.

Table A.6: The Causal Effects of County Characteristics on Relief Spending Preferences: Main Results and by Damage Level (Conjoint Experiment)

	(1)	(2)	(3)
	All	Total Damage	
		$10m or less	more than $10m
Damage: $1 million	0.427***	0.554***	0.049
	(0.046)	(0.051)	(0.089)
Damage: $4 million	0.724***	0.908***	0.160*
	(0.047)	(0.054)	(0.083)
Damage: $24 million	1.217***	*Omitted*	1.528***
	(0.052)		(0.087)
Fatalities: 5	0.095***	0.106***	0.063
	(0.029)	(0.035)	(0.046)
Income: $70,000	0.128***	0.155***	0.108*
	(0.040)	(0.050)	(0.061)
Income: $40,000	0.332***	0.348***	0.311***
	(0.041)	(0.053)	(0.060)
Income: $10,000	0.507***	0.553***	0.459***
	(0.044)	(0.056)	(0.062)
Unemployment Rate: 5%	-0.013	0.045	-0.093
	(0.040)	(0.050)	(0.061)
Unemployment Rate: 7%	0.037	0.087*	-0.033
	(0.039)	(0.051)	(0.063)
Unemployment Rate: 9%	0.096**	0.122**	0.069
	(0.041)	(0.052)	(0.062)
40% Democrat	-0.056	-0.088	-0.009
	(0.045)	(0.059)	(0.070)
30% Democrat	0.010	-0.009	0.058
	(0.046)	(0.057)	(0.070)
60% Democrat	-0.059	-0.047	-0.063
	(0.044)	(0.056)	(0.066)
70% Democrat	0.017	0.015	0.032
	(0.043)	(0.056)	(0.068)
Constant	4.105***	4.152***	3.856***
	(0.060)	(0.071)	(0.104)
Observations	20,944	11,862	9,082
R-squared	0.055	0.048	0.118

Note: OLS coefficients shown with robust standard errors clustered by respondent in parenthesis (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Reference categories for the respective attributes: Damage: $100,000, Fatalities: 0, Income: $100,000, Unemployment Rate: 3%, 50% Democrat. Since Model 2 is only based on conjoint tasks in which the total damage across the two scenarios was equal to or less than $10 million, the treatment indicator for the $24 million attribute level has to be excluded.

Table A.7: The Causal Effects of County Characteristics on Relief Spending Preferences: Recoded Reference Groups and Subgroup Estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Fairness Norm (Approval)						
		Affectedness		Need		Electoral Reciprocity	
	Main	Low	High	Low	High	Low	High
Damage: $100,000	-1.217***	-0.771***	-1.668***	-1.362***	-1.078***	-1.483***	-0.951***
	(0.052)	(0.063)	(0.081)	(0.074)	(0.073)	(0.077)	(0.069)
Damage: $1 million	-0.791***	-0.500***	-1.085***	-0.843***	-0.739***	-0.949***	-0.628***
	(0.046)	(0.057)	(0.070)	(0.065)	(0.064)	(0.068)	(0.060)
Damage: $4 million	-0.493***	-0.326***	-0.665***	-0.545***	-0.438***	-0.568***	-0.415***
	(0.041)	(0.050)	(0.064)	(0.058)	(0.058)	(0.057)	(0.058)
Fatalities: none	-0.095***	-0.045	-0.151***	-0.061	-0.127***	-0.053	-0.138***
	(0.029)	(0.037)	(0.044)	(0.039)	(0.043)	(0.040)	(0.041)
Income: $100,000	-0.507***	-0.457***	-0.560***	-0.320***	-0.693***	-0.647***	-0.367***
	(0.044)	(0.056)	(0.067)	(0.060)	(0.063)	(0.063)	(0.060)
Income: $70,000	-0.379***	-0.337***	-0.419***	-0.237***	-0.521***	-0.495***	-0.265***
	(0.042)	(0.053)	(0.067)	(0.058)	(0.061)	(0.061)	(0.058)
Income: $40,000	-0.175***	-0.210***	-0.144**	-0.120**	-0.228***	-0.232***	-0.123**
	(0.040)	(0.051)	(0.063)	(0.056)	(0.059)	(0.057)	(0.057)
Unemployment Rate: 3%	-0.096**	-0.072	-0.116*	0.009	-0.196***	-0.044	-0.132**
	(0.041)	(0.054)	(0.061)	(0.059)	(0.056)	(0.056)	(0.059)
Unemployment Rate: 5%	-0.109***	-0.094*	-0.128**	-0.021	-0.188***	-0.070	-0.139**
	(0.041)	(0.054)	(0.060)	(0.059)	(0.056)	(0.057)	(0.058)
Unemployment Rate: 7%	-0.059	-0.103**	-0.020	0.044	-0.160***	-0.071	-0.036
	(0.040)	(0.052)	(0.061)	(0.057)	(0.056)	(0.055)	(0.059)
50% Democrat	-0.017	0.066	-0.108*	0.033	-0.059	-0.105*	0.066
	(0.043)	(0.056)	(0.065)	(0.060)	(0.062)	(0.063)	(0.059)
40% Democrat	-0.073	-0.098*	-0.041	-0.087	-0.056	-0.077	-0.065
	(0.046)	(0.059)	(0.070)	(0.063)	(0.066)	(0.066)	(0.064)
30% Democrat	-0.007	0.003	-0.012	0.026	-0.037	-0.024	0.005
	(0.045)	(0.059)	(0.068)	(0.062)	(0.066)	(0.065)	(0.063)
60% Democrat	-0.076*	-0.052	-0.094	-0.060	-0.087	-0.071	-0.083
	(0.043)	(0.057)	(0.065)	(0.061)	(0.061)	(0.061)	(0.061)
Constant	6.037***	5.751***	6.332***	5.892***	6.172***	6.221***	5.847***
	(0.059)	(0.073)	(0.091)	(0.079)	(0.086)	(0.082)	(0.083)
Observations	20,944	10,472	10,472	10,472	10,472	10,472	10,472
R-squared	0.055	0.032	0.083	0.062	0.054	0.079	0.036

Note: OLS coefficients shown with robust standard errors clustered by respondent in parenthesis (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Reference categories for the respective attributes: Damage: $24 million, Fatalities: 5, Income: $10,000, Unemployment Rate: 9%, 70% Democrat. Since Model 2 is only based on conjoint tasks in which the total damage in both scenarios was equal to or less than $10 million, the treatment indicator for the $24 million attribute level has to be excluded.

Table A.8: Federal Relief Aid Programs

Program ID	Name of Program	Name of Department
10.054	Emergency Conservation Program	DA
10.073	Crop Disaster Program	DA
10.077	Livestock Compensation Program	DA
10.082	Tree Assistance Program	DA
10.09	Supplemental Revenue Assistance Payments Program	DA
10.404	Emergency Loans	DA
10.444	Direct Housing Natural Disaster Loans and Grants	DA
10.445	Direct Housing Natural Disaster	DA
11.477	Fisheries Disaster Relief	DC
12.102	Emergency Rehabilitation of Flood Control Works or Federally Authorized Coastal Protection Works	DA
12.103	Emergency Operations Flood Response and Post Flood Response	DA
14.119	Mortgage Insurance for Disaster Victims	HUD
59.008	Disaster Assistance Loans	SBA
83.516	Disaster Assistance	FEMA
93.003	Public Health and Social Services Emergency Fund	SAMHSA
83.537/97.03	Community Disaster Loans	FEMA
83.538/97.031	Cora Brown Fund	FEMA
83.539/97.032	Crisis Counseling	FEMA
83.541/97.034	Disaster Unemployment Assistance	FEMA
83.543/97.035	Individual and Family Grants	FEMA
83.544/97.036	Disaster Grants - Public Assistance	FEMA
83.545/97.037	Disaster Housing Program	FEMA
83.558/97.048	Federal Disaster Assistance to Individuals and Households	FEMA
83.559/97.049	Disaster Housing Operations for Individuals and Households	FEMA
83.560/97.05	Assistance to Individuals and Households	FEMA
97.088	Disaster Assistance Projects	FEMA

Note: DA = Department of Agriculture, DC = Department of Commerce, HUD = Department of Housing and Urban Development, SBA = Small Business Administration, SAMHSA = Substance Abuse and Mental Health Services Administration, FEMA = Federal Emergency Management Agency.

Table A.9: Federal Preparedness Spending Programs

Program ID	Name of Program	Name of Department
10.904	Watershed Protection and Flood Prevention	DA
10.923	Emergency Watershed Protection Program	DA
12.101	Beach Erosion Control Projects	DA
12.105	Protection of Essential Highways, Highway Bridge Approaches, and Public Works	DA
12.106	Flood Control Projects	DA
12.111	Emergency Advance Measures for Flood Prevention	DA
15.514	Reclamation States Emergency Drought Relief	DOI
83.203/83.505	State Disaster Preparedness Grants	FEMA
83.506	Earthquake and Hurricane Preparedness Grants	FEMA
83.519	Hazard Mitigation Assistance	FEMA
83.520	Hurricane Preparedness Grants	FEMA
83.521	Earthquake Hazards Reduction Grants	FEMA
83.535	Mitigation Assistance	FEMA
83.105/97.023	Community Assistance Program State Support Services Element	FEMA
83.536/97.029	Flood Mitigation Assistance	FEMA
83.548/97.039	Hazard Mitigation Grant	FEMA
83.555/97.045	Cooperating Technical Partners	FEMA
83.557/97.047	Pre-Disaster Mitigation	FEMA
97.07	Map Modernization Management Support	FEMA
97.082	Earthquake Consortium	FEMA
97.092	Repetitive Flood Claims	FEMA
97.11	Severe Loss Repetitive Program	FEMA

Note: DA = Department of Agriculture, DOI = Department of the Interior, FEMA = Federal Emergency Management Agency.

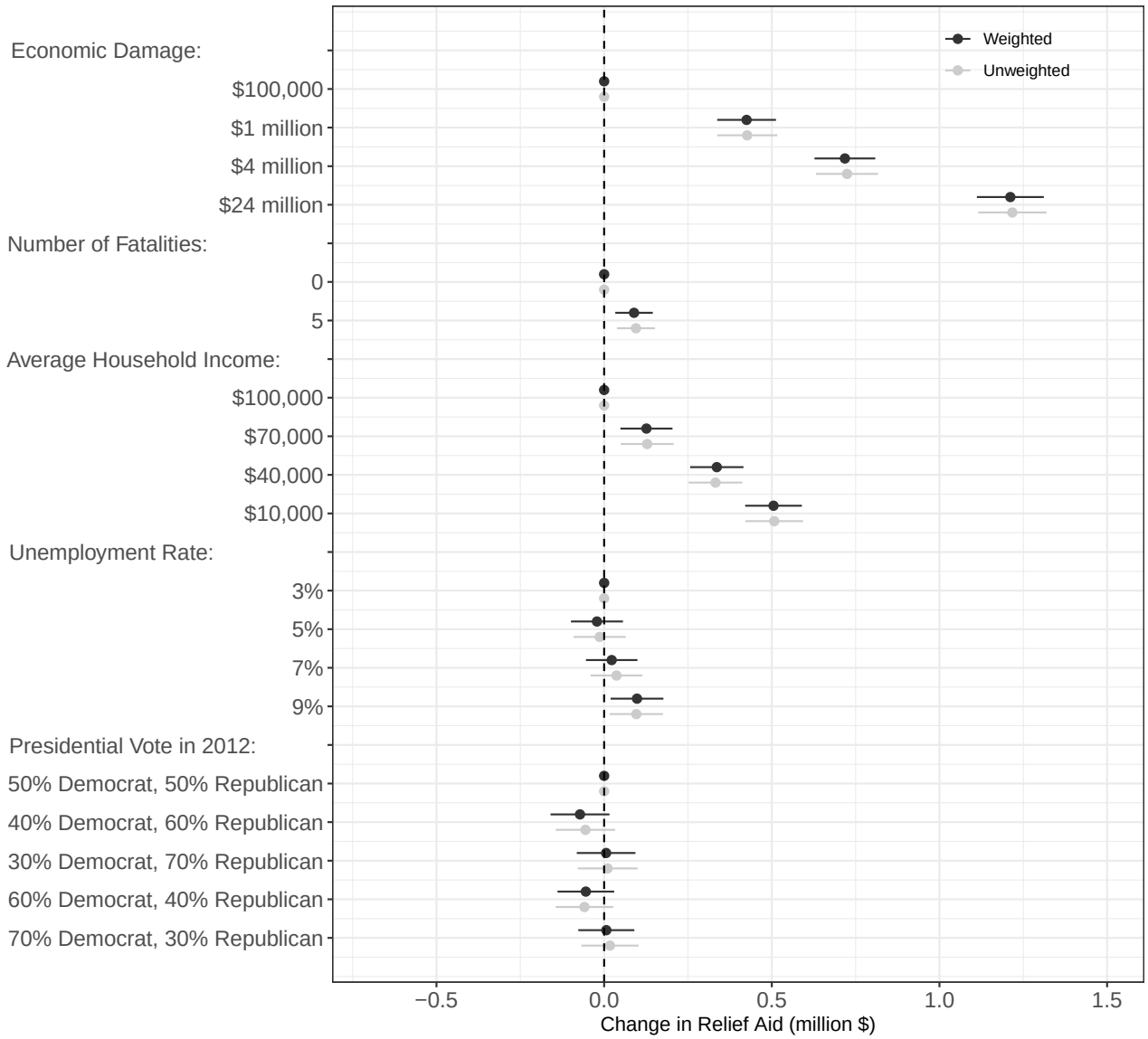
Table A.10: The Causal Effects of County Characteristics on Relief Spending Preferences: Subgroup Results by Damage Levels and Interaction Models

	(1) Main	(2) Damage: $100k	(3) Damage: $1M	(4) Damage: $4M	(5) Damage: $24M	(6) Interaction Terms
Damage: $1 million	0.427***					0.473***
	(0.046)					(0.085)
Damage: $4 million	0.724***					0.719***
	(0.047)					(0.086)
Damage: $24 million	1.217***					1.314***
	(0.052)					(0.089)
Fatalities: 5	0.095***	0.136**	0.067*	0.079	0.105*	0.095***
	(0.029)	(0.058)	(0.040)	(0.055)	(0.058)	(0.029)
Income: $70,000	0.128***	0.259***	0.108*	0.086	0.036	0.260***
	(0.040)	(0.083)	(0.055)	(0.078)	(0.080)	(0.084)
Income: $40,000	0.332***	0.334***	0.352***	0.421***	0.283***	0.337***
	(0.041)	(0.084)	(0.057)	(0.079)	(0.078)	(0.084)
Income: $10,000	0.507***	0.512***	0.564***	0.631***	0.390***	0.511***
	(0.044)	(0.089)	(0.059)	(0.080)	(0.080)	(0.089)
Unemployment Rate: 5%	-0.013	0.062	-0.032	-0.025	-0.048	-0.014
	(0.040)	(0.080)	(0.055)	(0.076)	(0.083)	(0.040)
Unemployment Rate: 7%	0.037	0.159*	0.028	0.027	-0.091	0.036
	(0.039)	(0.081)	(0.054)	(0.076)	(0.083)	(0.039)
Unemployment Rate: 9%	0.096**	0.231***	0.044	0.127	0.045	0.094**
	(0.041)	(0.086)	(0.055)	(0.079)	(0.081)	(0.041)
40% Democrat	-0.056	-0.023	-0.087	-0.137	-0.014	-0.054
	(0.045)	(0.092)	(0.062)	(0.087)	(0.093)	(0.045)
30% Democrat	0.010	0.082	-0.027	0.019	0.035	0.011
	(0.046)	(0.091)	(0.062)	(0.088)	(0.090)	(0.045)
60% Democrat	-0.059	0.040	-0.096	-0.258***	-0.069	-0.058
	(0.044)	(0.096)	(0.061)	(0.085)	(0.089)	(0.044)
70% Democrat	0.017	-0.001	0.035	-0.045	0.007	0.017
	(0.043)	(0.088)	(0.061)	(0.088)	(0.090)	(0.043)
Income $10k X Damage $24m						-0.119
						(0.120)
Income $40k X Damage $24m						-0.050
						(0.116)
Income $70k X Damage $24m						-0.221*
						(0.117)
Income $10k X Damage $4m						0.118
						(0.118)
Income $40k X Damage $4m						0.079
						(0.113)
Income $10k X Damage $4m						-0.177
						(0.114)
Income $10k X Damage $100k						-0.013
						(0.117)
Income $40k X Damage $100k						-0.048
						(0.114)
Income $10k X Damage $100k						-0.125
						(0.116)
Constant	4.105***	3.930***	4.719***	4.860***	5.425***	4.069***
	(0.060)	(0.105)	(0.069)	(0.098)	(0.100)	(0.076)
Observations	20,944	5,157	10,601	5,350	5,186	20,944
R-squared	0.055	0.011	0.013	0.020	0.008	0.056

Note: OLS coefficients shown with robust standard errors clustered by respondent in parenthesis (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$). Reference categories for the respective attributes: Damage: $100,000, Fatalities: 0, Income: $100,000, Unemployment Rate: 3%, 50% Democrat.

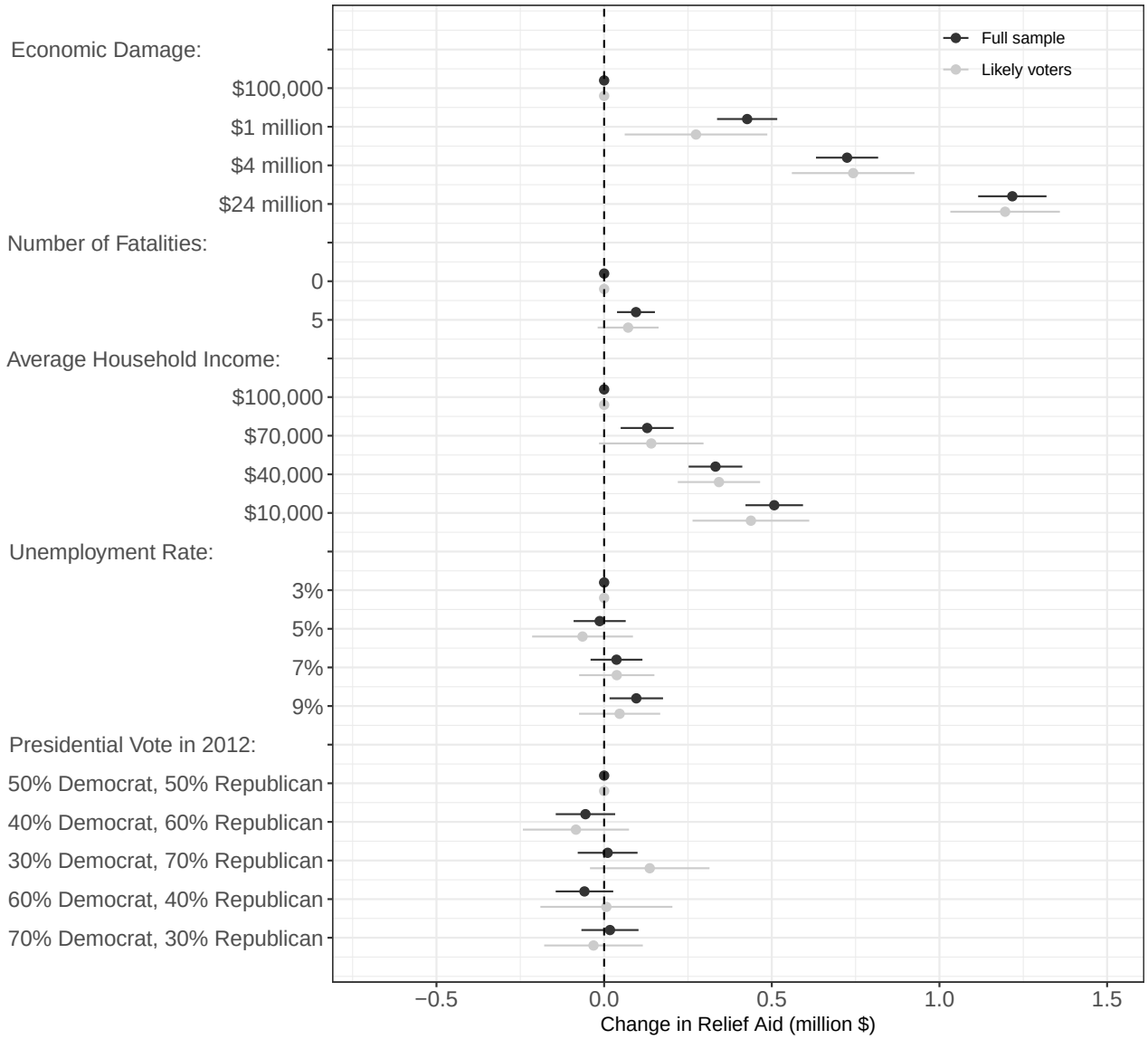
III. Appendix Figures

Figure A.1: The Causal Effects of County Characteristics on Relief Spending Preferences: Weighted vs. Unweighted Sample



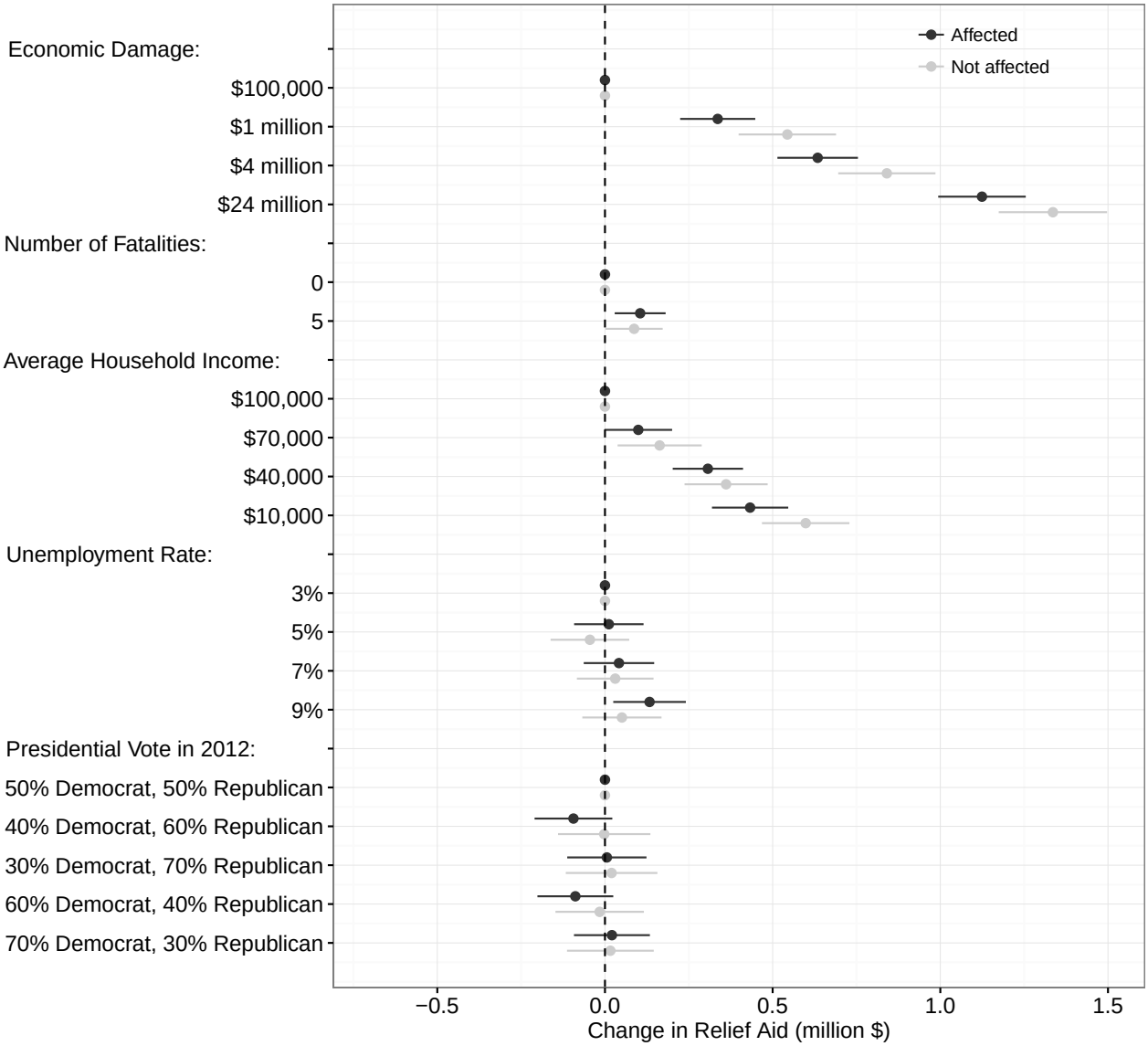
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a linear regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute.

Figure A.2: The Causal Effects of County Characteristics on Relief Spending Preferences: Likely Voters vs. Adult Population



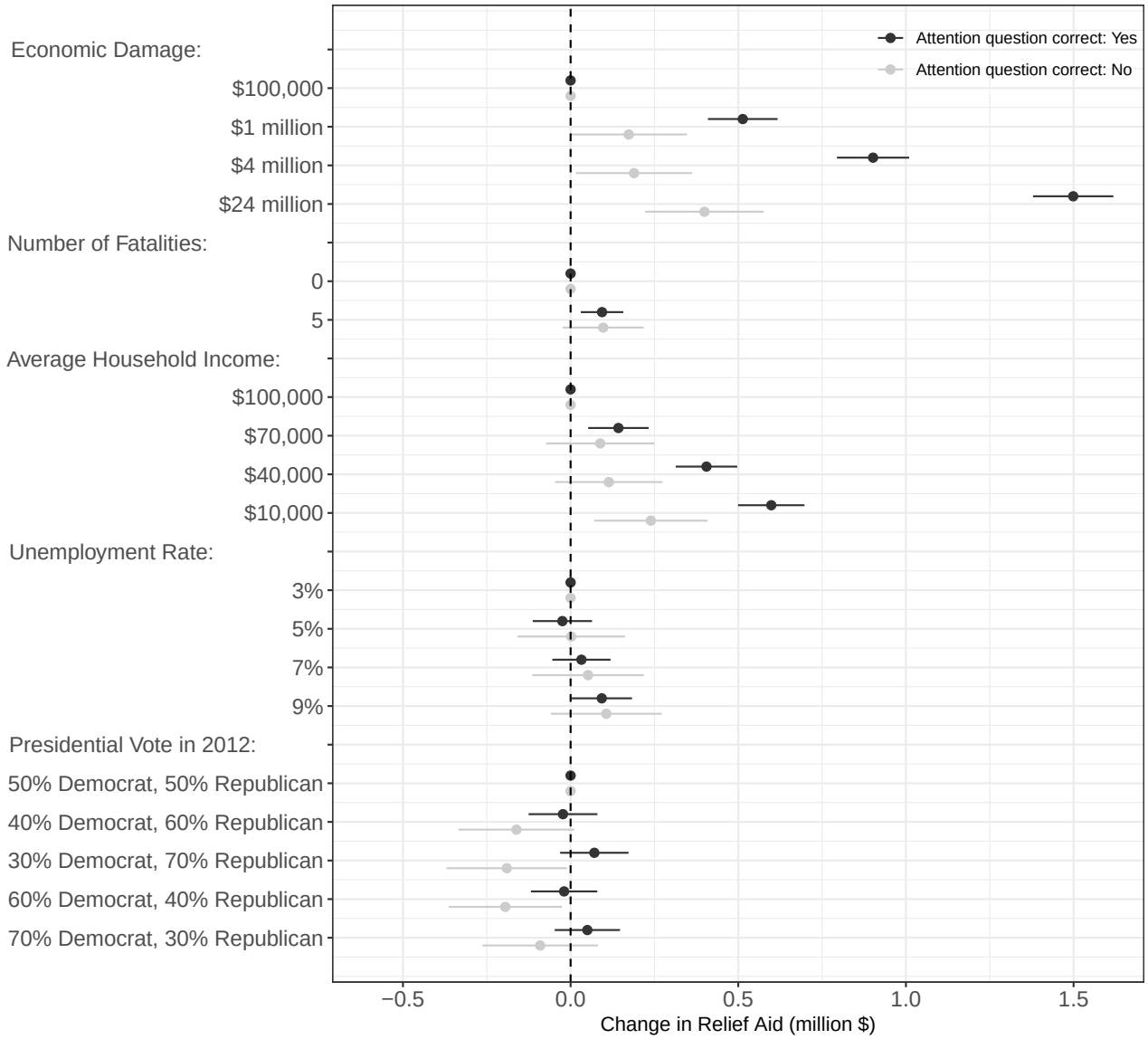
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a linear regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute.

Figure A.3: The Causal Effects of County Characteristics on Relief Spending Preferences by Personal Affectedness



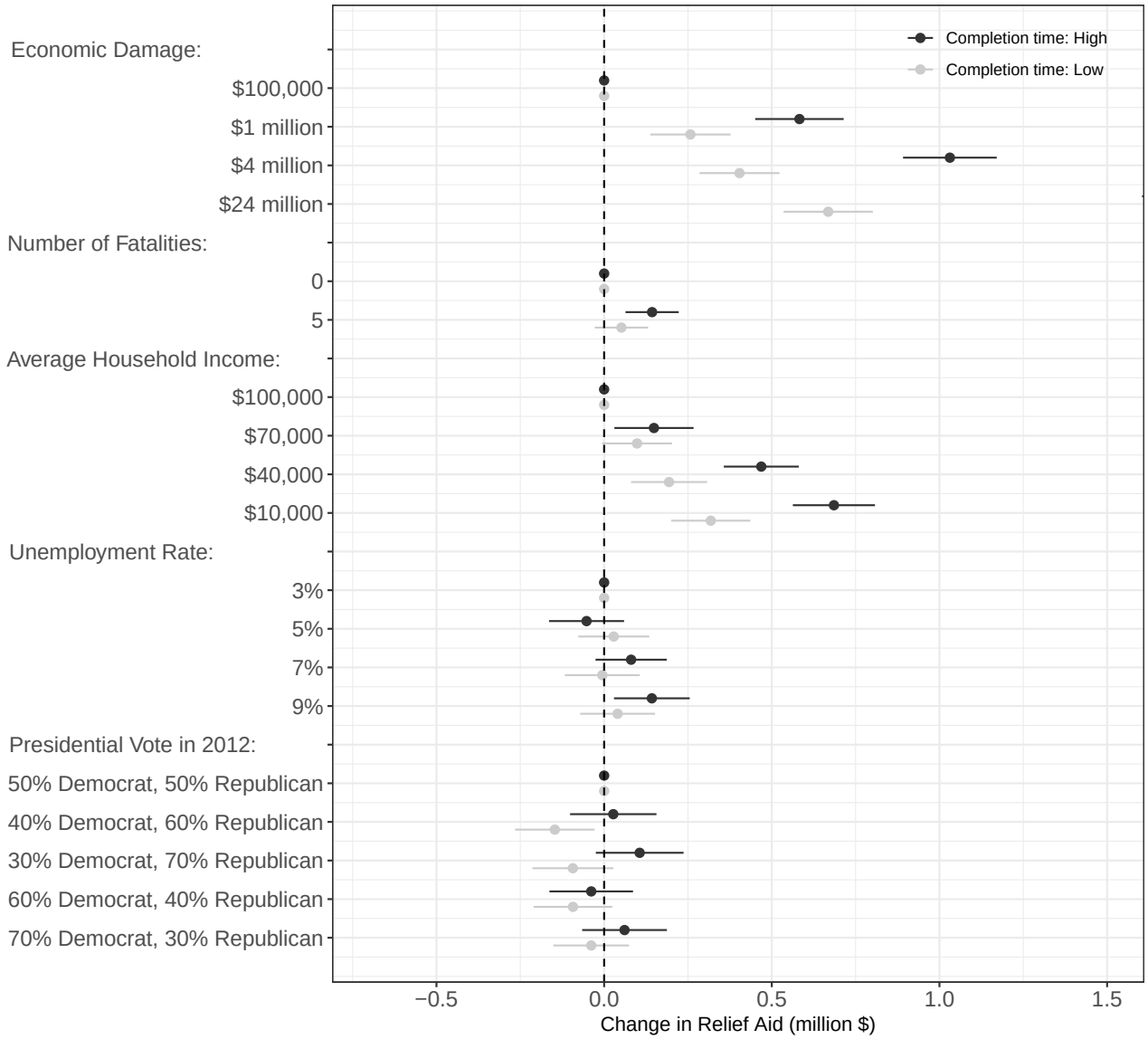
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a linear regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. Baseline levels of relief aid: Affected = $4.2 million, Not affected = $4 million. N(county-level relief spending decisions) = 20,944. N(respondents affected) = 1,488, N(respondents not affected) = 1,130. We classify respondents as "affected" if they were affected by a natural disaster in the past ten years.

Figure A.4: The Causal Effects of County Characteristics on Relief Spending Preferences by Attentiveness



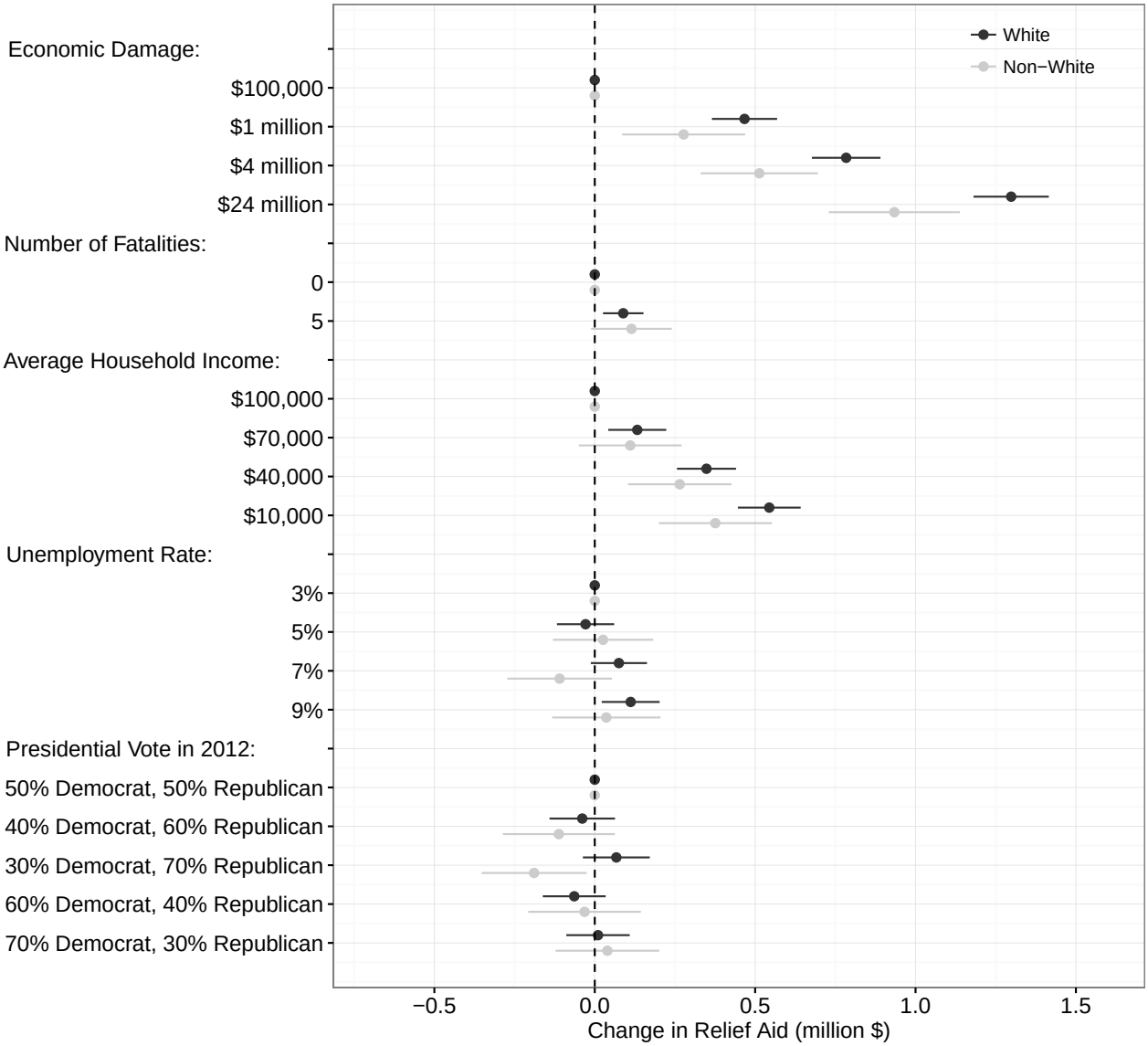
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a tobit regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. Attention: High identifies respondents that passed a screener question. Baseline levels of relief aid: Attention: High= \$3.9 million, Attention: Low = \$4.7 million. N(county-level relief spending decisions) = 20,944. N (respondents) per group = 1,309.

Figure A.5: The Causal Effects of County Characteristics on Relief Spending Preferences by Conjoint Completion Time



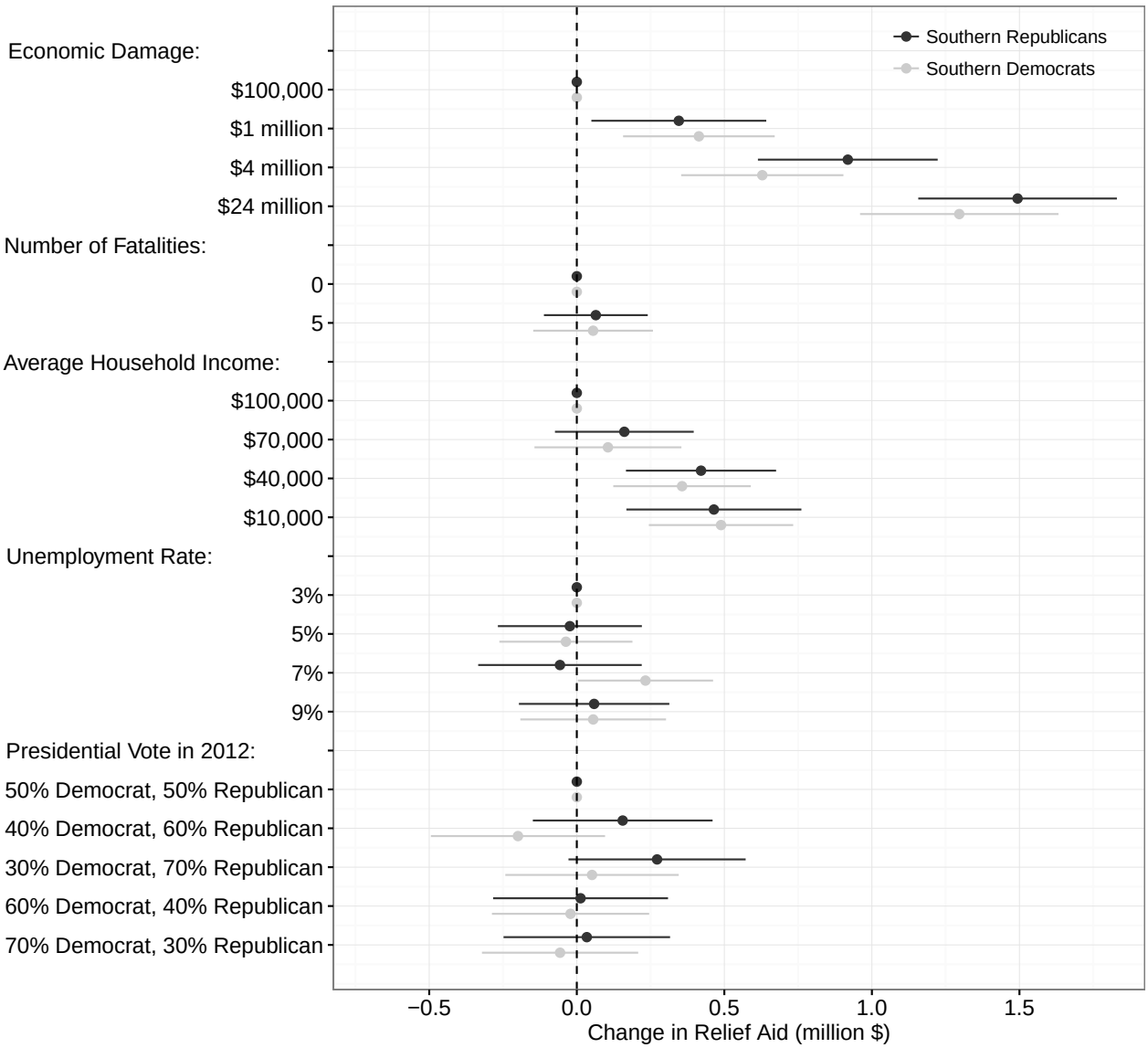
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a tobit regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. *Completion Time: High* identifies respondents who completed the survey faster than the median respondent. *Completion Time: Low* identifies respondents with completion times equal to or greater than the median conjoint completion time (1.6 minutes). Baseline levels of relief aid: Conjoint completion time: High = $4.5 million, Conjoint completion time: Low = $3.7 million. N(county-level relief spending decisions) = 20,944. N (respondents) per group = 1,309.

Figure A.6: The Causal Effects of County Characteristics on Relief Spending Preferences by Race



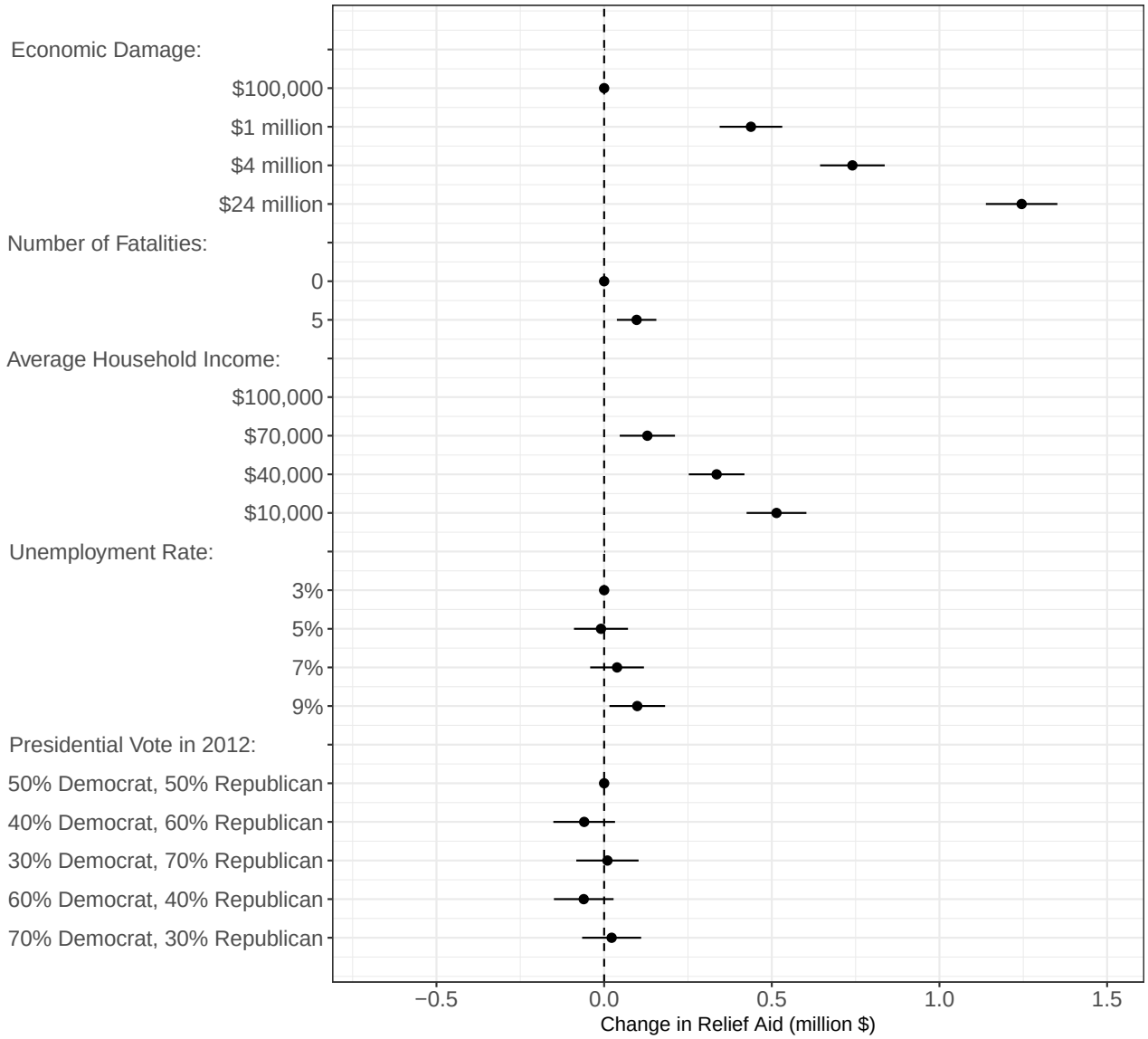
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a linear regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. Baseline levels of relief aid: White = $3.9 million, Non-white = $4.1 million. N(county-level relief spending decisions) = 20,944. N (respondents) = 1,309.

Figure A.7: The Causal Effects of County Characteristics on Relief Spending Preferences by Partisan Identification (Only Southern Central United States)



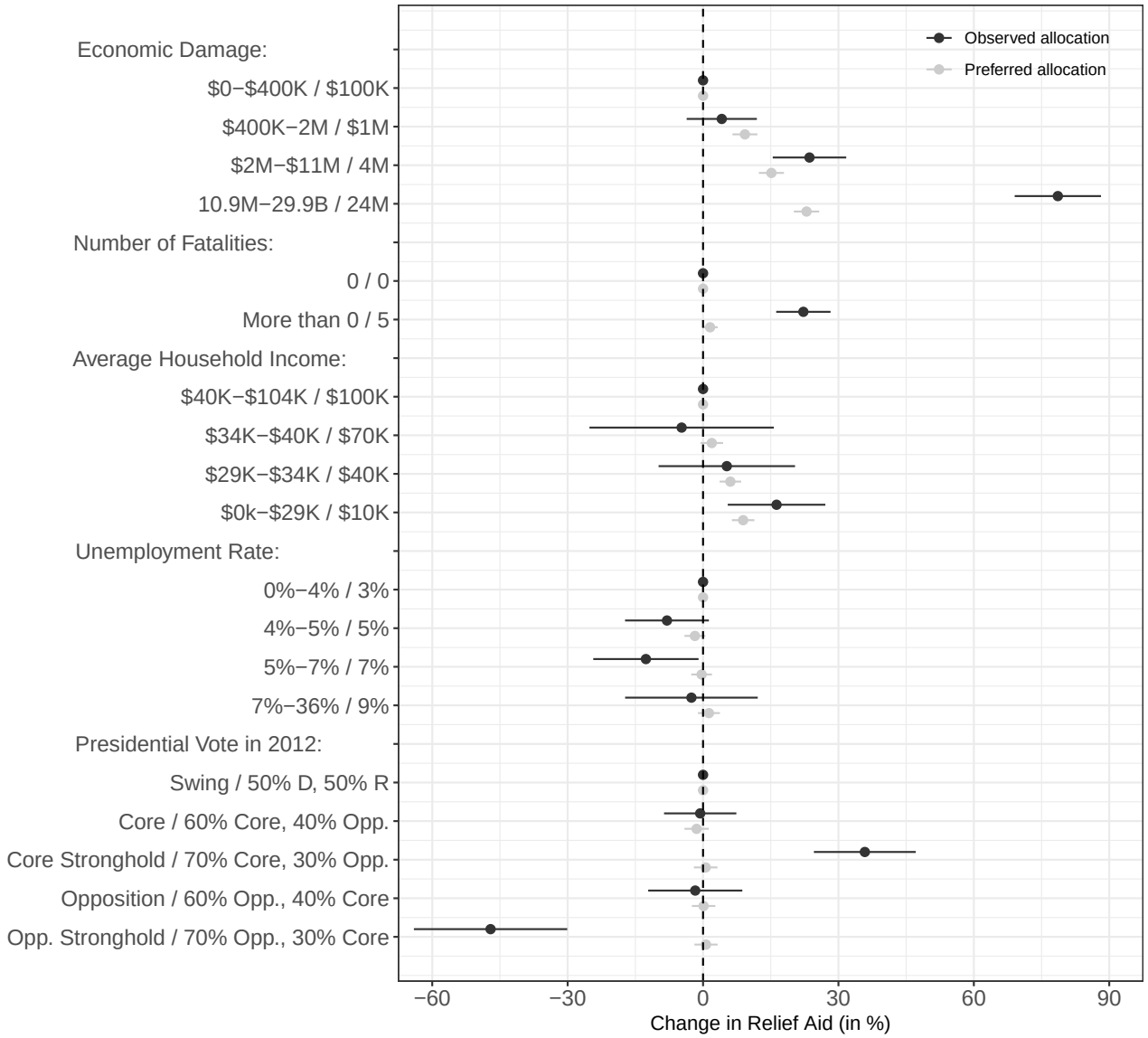
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a linear regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. Results are based on all respondents located in the Southern United States according to the definition of the US Census Bureau: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas. Baseline levels of relief aid: Affected = $4.2 million, Not affected = $4 million. N(Southern Republicans) = 254, N(Southern Democrats) = 268.

Figure A.8: The Causal Effects of County Characteristics on Relief Spending Preferences (Tobit Estimates)



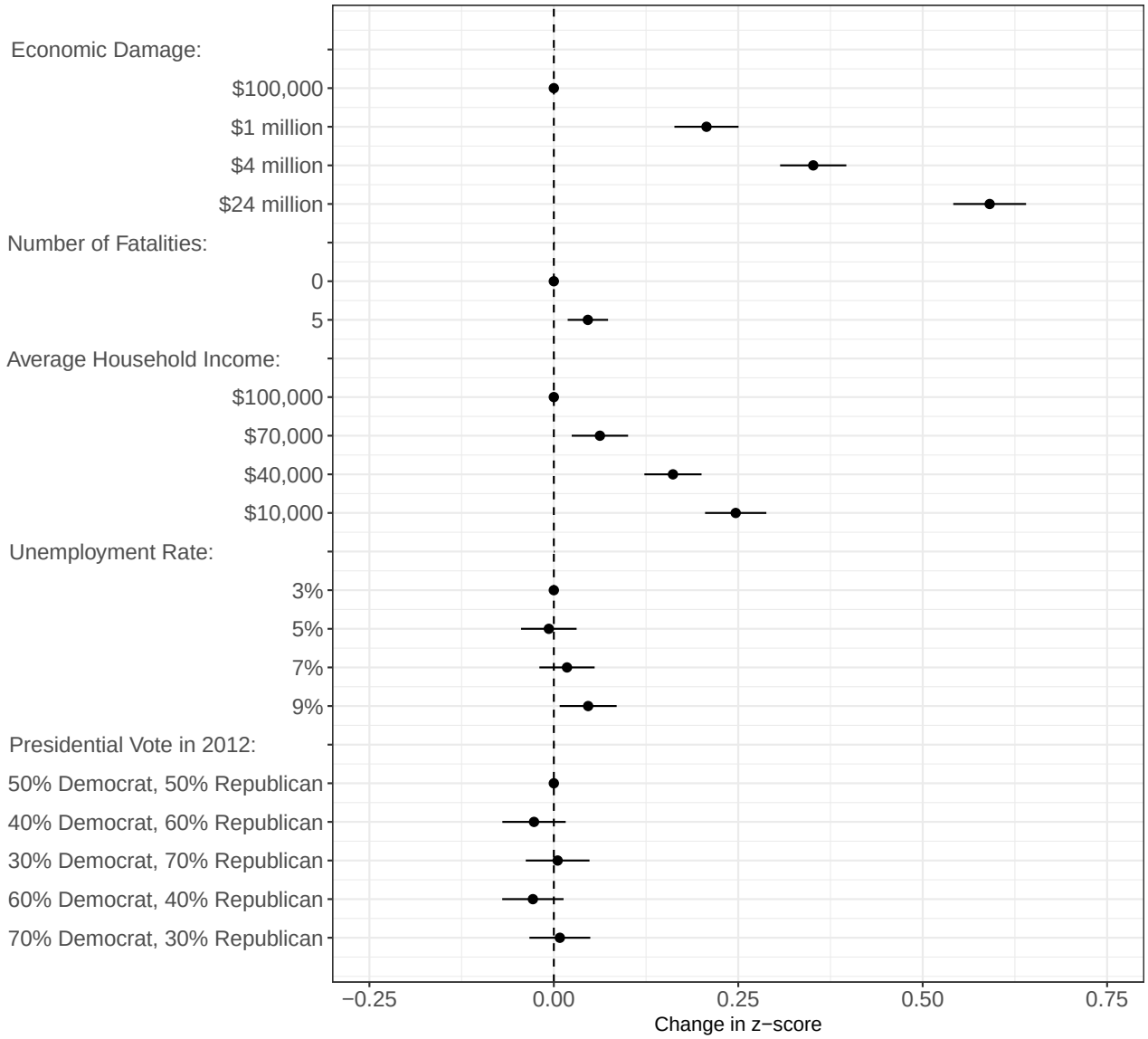
Note: This plot shows the causal effects of randomly assigned attribute values on the amount of relief aid allocated to an affected county. Estimates are based on a tobit regression of *Relief Amount* on indicator variables with standard errors clustered by respondent. Horizontal lines indicate 95% robust confidence intervals. Points without confidence intervals indicate the reference category for a given attribute. Baseline levels of relief aid: $4.1 million. N(county-level relief spending decisions) = 20,944. N (respondents) = 2,618.

Figure A.9: Comparing Observed and Preferred Disaster Relief Allocations (Conjoint: Democratic President)



Note: This plot shows differences in the estimated effects of county-level characteristics on relief aid (in logs). Points without confidence intervals indicate the reference categories. Horizontal lines indicate 95% robust confidence intervals. For the experimental conjoint results the standard errors are clustered by respondent. Experimental data: N(county-level relief spending decisions) = 20,944. N (respondents) = 2,618. Historical data: N = 12,424. Horizontal lines indicate 95% robust confidence intervals; points without lines indicate the reference categories. The experimental estimates are based on scenarios that feature a Democratic president.

Figure A.10: The Causal Effects of County Characteristics on Relief Spending Preferences (z-Transformed Relief Amount)



Note: This plot shows the causal effects of randomly assigned attribute values on the z-transformed amount of relief aid allocated to an affected county. To obtain the z-transformed amount of relief aid we compute the relative share of relief aid allocated to county A and county B for each conjoint comparison (e.g. if county A received \$3 million and county B received \$7 million, the shares are .3 and .7, respectively). We then computed the corresponding z-value using the inverse cumulative distribution function. To avoid infinite values we added .01 when the allocated share of relief aid was 0 and subtracted .01 whenever the allocated share was 1. Estimates are based on a linear regression of *Relief Amount (z-values)* on indicator variables. Horizontal lines indicate 95% confidence intervals based standard errors clustered by respondent. Points without confidence intervals indicate the reference category for a given attribute. Baseline z-score: -0.3. N(county-level relief spending decisions) = 20,944. N (respondents) = 2,618.

Figure A.11: The Causal Effects of County Characteristics on Relief Spending Preferences (One Spending Decision Only)