Technical Report:

Climate Insights 2020 | Natural Disasters

Support for Adaptation Policies on Natural Disasters of Wildfires and Floods: Attribution Framing, Sociotropic and Self-Interest Considerations, and Racial and Ethnic Gaps

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This methodology report accompanies the natural disasters installment of the Climate Insights 2020 report. Climate Insights is a survey project by researchers at Stanford University, Resources for the Future, and ReconMR examining American public opinion on issues related to climate change. Since 1997, Stanford University Professor Jon Krosnick has explored American public opinion on these issues through a series of rigorous national surveys of random samples of American adults, often in collaboration with RFF. The 2020 iteration of the Climate Insights survey polled 999 American adults during the 80-day period from May 28, 2020 to August 16, 2020. This series is accompanied by an interactive data tool, which can be used to view specific data from the survey. Please visit www.rff.org/climateinsights or https://climatepublicopinion.stanford.edu/ for more information and to access the data tool, report series, blog posts, and more.

Sample

This report used data from the 2020 National Survey of Public Opinion on Global Warming conducted by Stanford University, Resources for the Future, and ReconMR. It involved Random Digit Dial telephone interviews with a representative sample of 999 adults living in the United States. 310 respondents were interviewed on a landline telephone, and 689 were interviewed on a cell phone by human interviewers. Interviewing was conducted from May 28 to August 16, 2020, in English. AAPOR's Response Rate 3 was 18% for the landline frame, 6% for the cell phone frame, and 10% for the whole study sample (See Appendix A for the survey methodology).

Measures

Mitigation policy support index. Respondents were randomly assigned to be asked a series of eight policy questions on wildfires (N=505) or 7 policy questions on floods (N=495).

These fires and floods questions parallel one another, asking about the same policy with regard to each phenomenon, responses to the questions were combined, yielding an index which was computed as the average of the answers to the fires or floods questions (as coded with the methods described below). The policy support index ranged from 0 (meaning the least support) to 1 (meaning the most support) and was the primary dependent variable that we sought to explain.

Wildfire questions. Half of the respondents who were asked about wildfires (chosen randomly) were asked the questions with no mention of climate change, using this introduction:

> "In many parts of the western US, wildfires have been happening throughout history, but during the last 40 years, wildfires have been happening more often and have been doing more and more damage each year to buildings and killing more people.
>
> Scientists who study wildfires believe that in the coming years, those fires will happen more often and will be more damaging.
>
> Next, I'll list some things that the federal government and state governments can do to try to reduce the damage that wildfires will do in the future. For each one, please tell me whether you think government should or should not do it."

The other half of the respondents who were asked about wildfires heard this introduction plus a phrase added to the end of the second sentence: "because global warming has been causing the land and the air to be dryer for long periods of time, so they burn more easily."

These respondents were then asked eight policy questions in the following sequence:

> "First, government can require homeowners and business owners in risky areas to buy insurance that will pay for fixing damage caused by fires. Do you think that government should or should not do this?
>
> "Government can pay for some of the cost of this type of insurance for poor families. Do you think that government should or should not do this?
>
> "Government can remove large amounts of dead plants and trees in forests, so there is less to burn. Do you think that government should or should not do this?

"Government can make it illegal to build new buildings near where fires are likely to happen. Do you think that government should or should not do this?

"Government can increase the number of firefighters who can put the fires out. Do you think that government should or should not do this?

"Government can require that when people build new buildings, the buildings need to be made in a way that doesn't burn easily. Do you think that government should or should not do this?

"Government can offer to pay people money if they agree to move away from living near where fires are likely to happen. Do you think that government should or should not do this?

"After wildfires happen, government can help people who lose their homes and businesses to get a place to live. Do you think that government should or should not do this?"

Coding: Should = 1, Should not or don't know or refusal to answer = 0.

Floods questions. Half of the respondents who were asked about floods heard this introduction:

"Severe storms cause flooding along the coasts of the US and inland as well. These floods tend to happen in the same places and kill people, damage homes, businesses, roads, crops, and other things. During the last 40 years, these floods have been happening more often and have been doing more and more damage each year.

Scientists who study flooding believe that in the coming years, those floods will happen more often and will be more damaging.

I'd like to tell you about some things that the federal government and state governments can do to try to reduce the damage that future flooding will do. For each one, please tell me whether you think the government should or should not do it."

The other half of the respondents who heard about floods heard this phrase added to the end of the second sentence above: "because global warming is causing storms to be bigger, to last longer, and to do more damage."

These respondents were then asked seven policy questions in the following sequence:

"First, government can require homeowners and business owners in risky areas to buy insurance that will pay for future flood damages. Do you think that government should or

should not do this?

"Government can pay for some of the cost of this type of insurance for poor families. Do you think that government should or should not do this?

"Government can do construction work so that water will drain more quickly in risky areas. Do you think that government should or should not do this?

"Government can make it illegal to build new buildings in risky areas. Do you think that government should or should not do this?

"Government can require that when people build new buildings in risky areas, the buildings need to be made in a way that doesn't get damaged easily by floods. Do you think that government should or should not do this?

"Government can offer to pay people money if they agree to move their homes and businesses away from risky areas. Do you think that government should or should not do this?

"After floods happen, government can help people who lose their homes and businesses to floods. Do you think that government should or should not do this?"

Coding: Should = 1, Should not or don't know or refusal to answer = 0.

We conducted statistical analyses to explore whether adding these short phrases increased support for government action to mitigate the effects of wildfires and floods.

Global warming attribution. A dichotomous variable, *attributing fires/floods to GW*, was constructed and set to 1 for respondents who heard the additional phrase "because global warming has been causing the land and the air to be dryer for long periods of time, so they burn more easily" in the wildfires groups, or "because global warming has been causing the land and the air to be dryer for long periods of time, so they burn more easily" in the floods group, and 0 for the respondents who did not hear this additional phrase.

Sociotropic vs. self-interest considerations. To explore the impact of pocketbook considerations vs. sociotropic considerations, we assessed respondents' beliefs about how much global warming will hurt or help them personally and will hurt or help future generations. We

assessed the degree to which these perceptions influenced policy support.

Impact on future generations. Respondents were asked:

> "[Assuming it's happening] If nothing is done to reduce global warming in the future, how much do you think it will help future generations—a great deal, a lot, a moderate amount, a little, or not at all?
>
> "[Assuming it's happening] If nothing is done to reduce global warming in the future, how much do you think it will hurt future generations—a great deal, a lot, a moderate amount, a little, or not at all?"

High impacts on personal interests. Respondents were asked:

> "[Assuming it's happening] If nothing is done to reduce global warming in the future, how much do you think it will help you personally—a great deal, a lot, a moderate amount, a little, or not at all?
>
> "[Assuming it's happening] If nothing is done to reduce global warming in the future, how much do you think it will hurt you personally—a great deal, a lot, a moderate amount, a little, or not at all?"

The phrase "Assuming it's happening" was added for respondents who previously said that they thought that the earth had probably not been warming during the last 100 years.

Coding for all four measures: 1=a great deal, a lot, a moderate amount, 0=a little, not at all; 0=don't know or refusal to answer.

Global warming existence belief. Respondents were asked "What is your personal opinion? Do you think that the world's temperature probably has been going up over the past 100 years, or do you think this probably has not been happening?" A dichotomous variable, *GW has been happening*, was set to 1 for people who answered with "probably has been going up" and 0 otherwise.

Study design variable. A dichotomous variable, *wildfires sample*, was constructed and set to 1 for respondents who were asked the wildfires questions and 0 for respondents who were asked the floods questions.

Political party identification and liberal/conservative ideology. Respondents were asked **"**Generally speaking, do you usually think of yourself as [a Democrat, a Republican/ a Republican, a Democrat], an Independent, or what?" A dichotomous variable, *Democrat*, was constructed and set to 1 for people who answered "Democrat" and 0 otherwise. A dichotomous variable, *Republican*, was constructed and set to 1 for people who answered "Republican" and 0 otherwise**.** Respondents were asked "Generally speaking, do you consider yourself liberal, moderate, or a conservative?" A dichotomous variable, *liberal*, was constructed and set to 1 for people who answered "liberal" and 0 otherwise. A dichotomous variable, *conservative*, was constructed and was set to 1 for people who answered "conservative" and 0 otherwise.

Demographics. Respondents reported their sex, age, race, Hispanic ethnicity, education, income, and region of residence (see Appendix B for question wording and coding).

Missing data. A series of dummy variables identified respondents who did not answer each demographic question (coded 1 for people who did not answer and 0 for people who did), and those respondents were assigned an arbitrary value for that demographic and were included as predictors in all regressions. This avoids losing cases while also preventing distortion of the parameter estimates.

Results

Public Support for Mitigation Polices on Fires and Floods

Seven out of the eight wildfires policies were favored by a majority of respondents (see Figure 1). The least popular policy was the government paying to move people to live in safer places, with 47% of people favoring it. Nearly six in ten favored prohibiting development near fire-prone areas (58%) and requiring people to purchase fire insurance (60%). More than three-quarters favored removing dead vegetation in forests (76%), helping Americans who lose their

homes due to fires (79%), increasing the number of firefighters (85%), and requiring use of fire-resistant building materials (87%).

All of the seven policies related to floods were favored by a majority of respondents (see Figure 2). Nearly six in ten supported prohibiting development in flood-prone areas (57%) and paying people to move to live in safer places (59%). Two-thirds supported requiring flood insurance (66%). More than three-quarters favored helping Americans who lose homes due to floods (77%), requiring new building codes (84%), and doing construction encouraging quicker water drainage (87%).

Impact of Global Warming Attribution Framing on Policy Support

The provision of attributing fires or floods to global warming increased public support for damage mitigation polices. Compared to respondents who did not hear that more and more severe fires and floods will occur because of global warming, respondents who heard that statement favored the mitigation policies more ($b=.057$, $p<.05$; row 1 in Table 1).

Belief in the Existence of Global Warming

Consistent with that notion, people who believed the earth has been warming over the last 100 years were more likely to support government mitigation efforts than were others ($b=.071$, $p<.01$; row 2 in Table 1), even when these individuals were not told that global warming will make fires and floods more common and more devastating.

Effect of Self-Interest and Sociotropic Beliefs on Policy Support

As expected, sociotropic considerations shaped the public's support for government mitigation efforts. Perceived high threat to future generations posed by global warming strongly and positively predicted policy support ($b=.176$, $p<.001$; row 6 in Table 1). In addition, the belief that the respondent will be hurt by climate change also increased support for government

mitigation efforts, but less strongly (b=.052, p<.01; row 5 in Table 1). The difference between the impact of sociotropic vs. self-interest perceptions of harm was statistically significant (F(1, 998)=10.68, p=.0011). Interestingly, perceiving that global warming will benefit future generations reduced support for mitigation policies marginally significantly (b=-.036, p<.10; row 4 in Table 1), whereas perceiving that global warming will help the respondent had no impact on policy support (b=.017, n.s.; row 3 in Table 1).

Income

Contrary to the luxury goods hypothesis, lower income people (with income less than $35,000) were more likely to support government mitigation policies (b=-.051, p<.05; compared to people with income $35K and more; row 24 in Table 1).

Race and Ethnicity

Support for mitigation policies on wildfires and floods was markedly higher among racial minorities and ethnicity groups than among others. Hispanics were more likely than non-Hispanics to want government mitigation policies (b=.100, p<.001; row 12 in Table 1), and African-Americans were more likely than others to favor government mitigation policies (b=.082, p<.01; row 13 in Table 1).

Additional Predictors

Not surprisingly, political conservatives were more likely to oppose government efforts to mitigate the effects of wildfires and floods than were moderates and liberals (b=-.0663, p<.01; row 8 in Table 1 for moderates; b=-.095, p<.001; rows 7-8 in Table 1 for liberals). After accounting for liberal/conservative ideology, political party identification had no impact. Also not surprising, women were more likely than men to support mitigation efforts (b=.043, p<01; row 11 in Table 1). No differences were observed across age groups or education groups or

regions of the country in support for mitigation policies.

Graphical Representation of Predictors

The bars in Figure 3 display predicted opinion scores based on the regression equation in Table 1 for various population subgroups.

Public Support for the Federal Government's Role in Mitigation Polices on Fires and Floods

When asked which level of government should enact mitigation policies on fires and floods, a majority of respondents said that the federal government should play a role: 71% thought the fires mitigation policies should be done in part at the federal level (with 2% saying mainly the federal government, and 69% saying both the federal government and the state government) (Figure 3), and 75% wanted floods mitigation polices to be done at least partly by the federal government (with 3% wanting mainly the federal government, and 72% waiting both the federal government and the state government) (see Figure 5).

People who perceived more threat of global warming were more likely to support federal government involvement in mitigation policies on fires and floods, especially high threat to future generations ($b=.196$, $p<.001$; row 2 column 1 in Table 2) and, to a lesser degree, high threat ($b=.089$, $p<.01$; row 1 column 1 in Table 2). As expected, Republicans were less likely than Independents and Democrats to endorse the federal government's role in these policies ($b=-.106$, $p<.05$; row 6 column 1 in Table 2; $b=-.123$, $p<.05$; rows 5-6 column 1 in Table 2). Americans in different demographic groups were quite similar in their levels of support for how the federal government should enact those mitigation policies.

Public Support for All Taxpayers' Funding for Mitigation Polices on Fires and Floods

When asked who should pay for the costs of fires and floods mitigation policies, a

minority of respondents said all taxpayers should foot these bills: 27% said the costs of fire mitigation policies should be borne by everyone in America, and 69% said that only the people living in fires-prone areas should bear the costs (Figure 4); 34% said the costs of floods mitigation policies should be paid for by everyone in America, and 62% said that people living in fires-prone areas should pay for the costs (Figure 6).

People who perceived high threat of global warming to the future generations were more likely to support all Americans being responsible to pay for mitigation policies ($b=.094$, $p<.05$; row 2 column 2 in Table 2). As expected, liberals were more likely than moderates and conservatives to advocate that all Americans should pay for implementing these policies ($b=.193$, $p<.001$; row 3 column 2 in Table 2; $b=.208$, $p<.001$; rows 3-4 column 2 in Table 2). Similar patterns appeared when examining public funding responsibility separately for fires policies and floods policies (columns 3-4 in Table 2). Notably, respondents living in areas of higher risk to floods did not prefer payment by the general public more than did people not living there.

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Figure 1. Public support for individual mitigation policies on wildfires

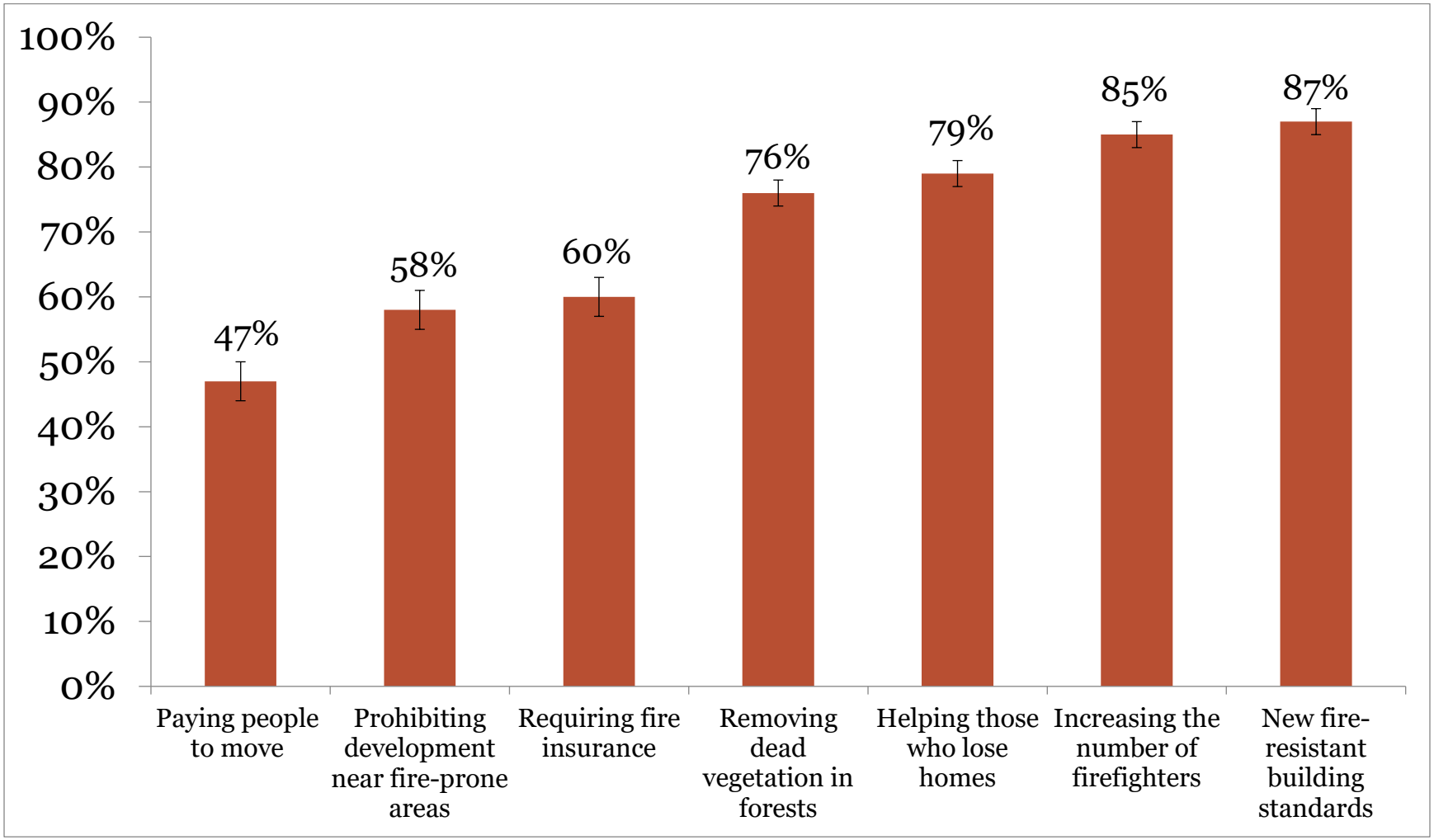

Figure 2. Public support for individual mitigation policies on floods

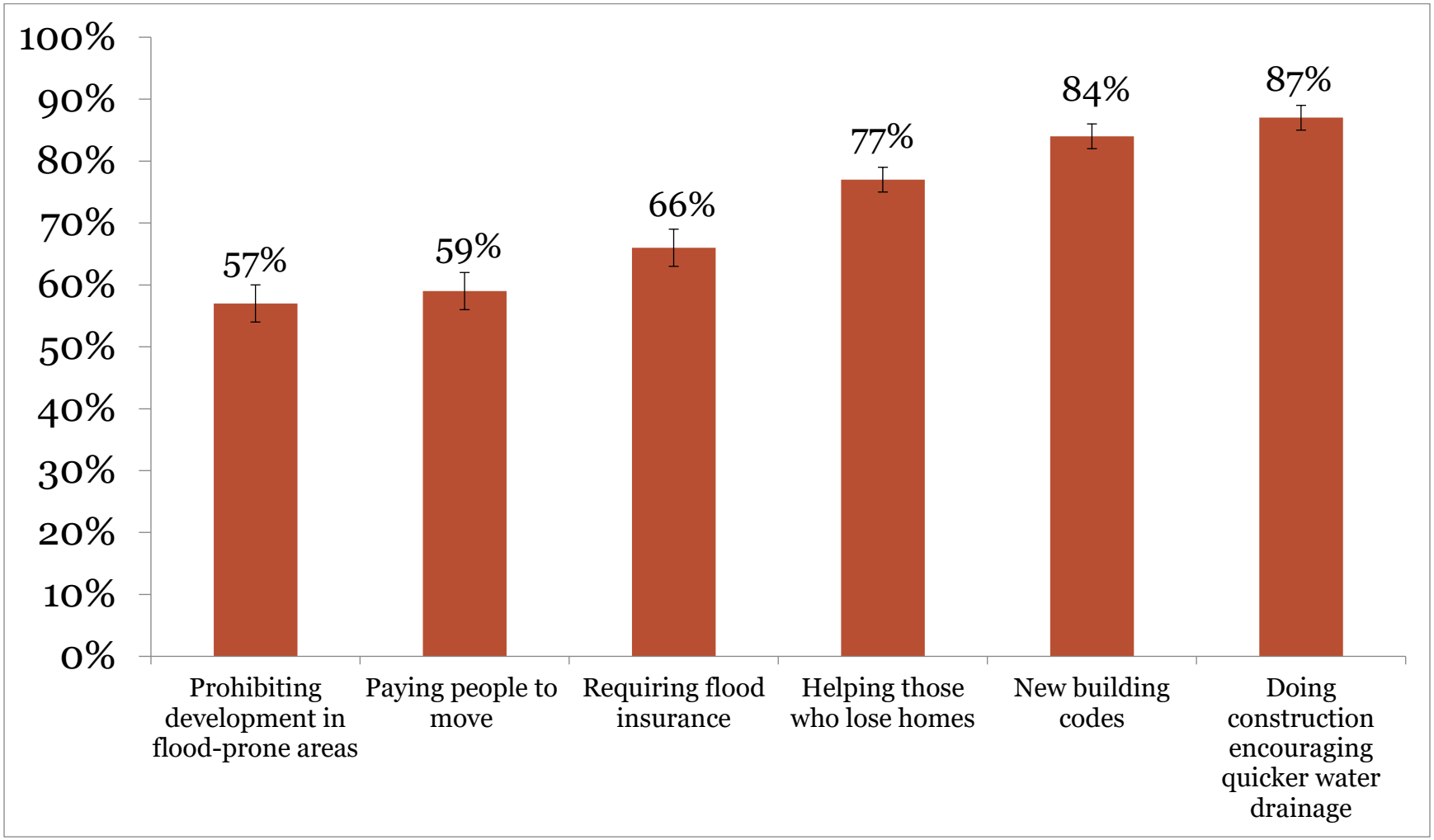

Figure 3. Regression-Based Predicted Support for Mitigation Policies by Subgroups

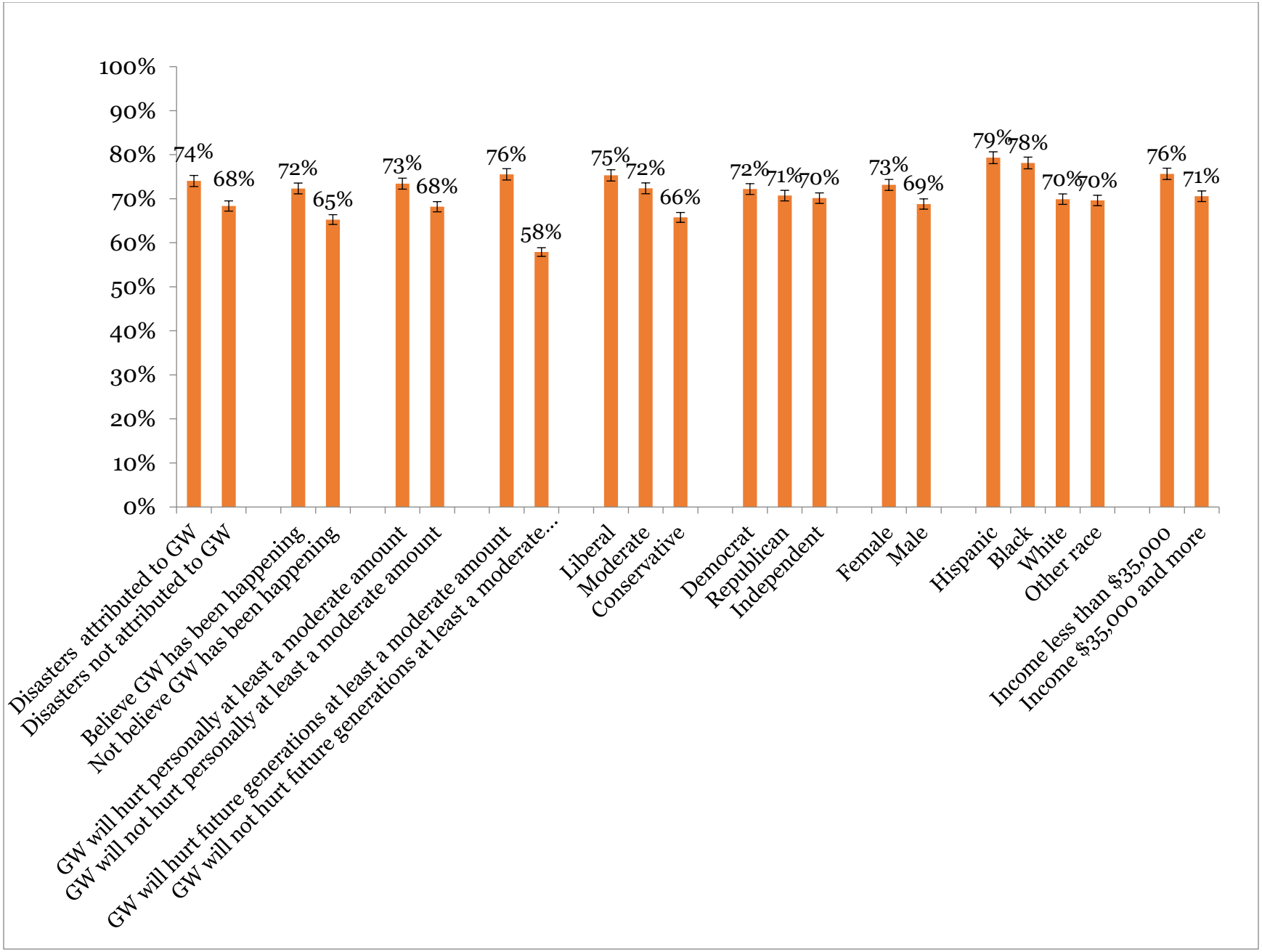

Figure 4. Americans' Opinions on Which Governments Should Take Action on Reducing Wildfires Damage

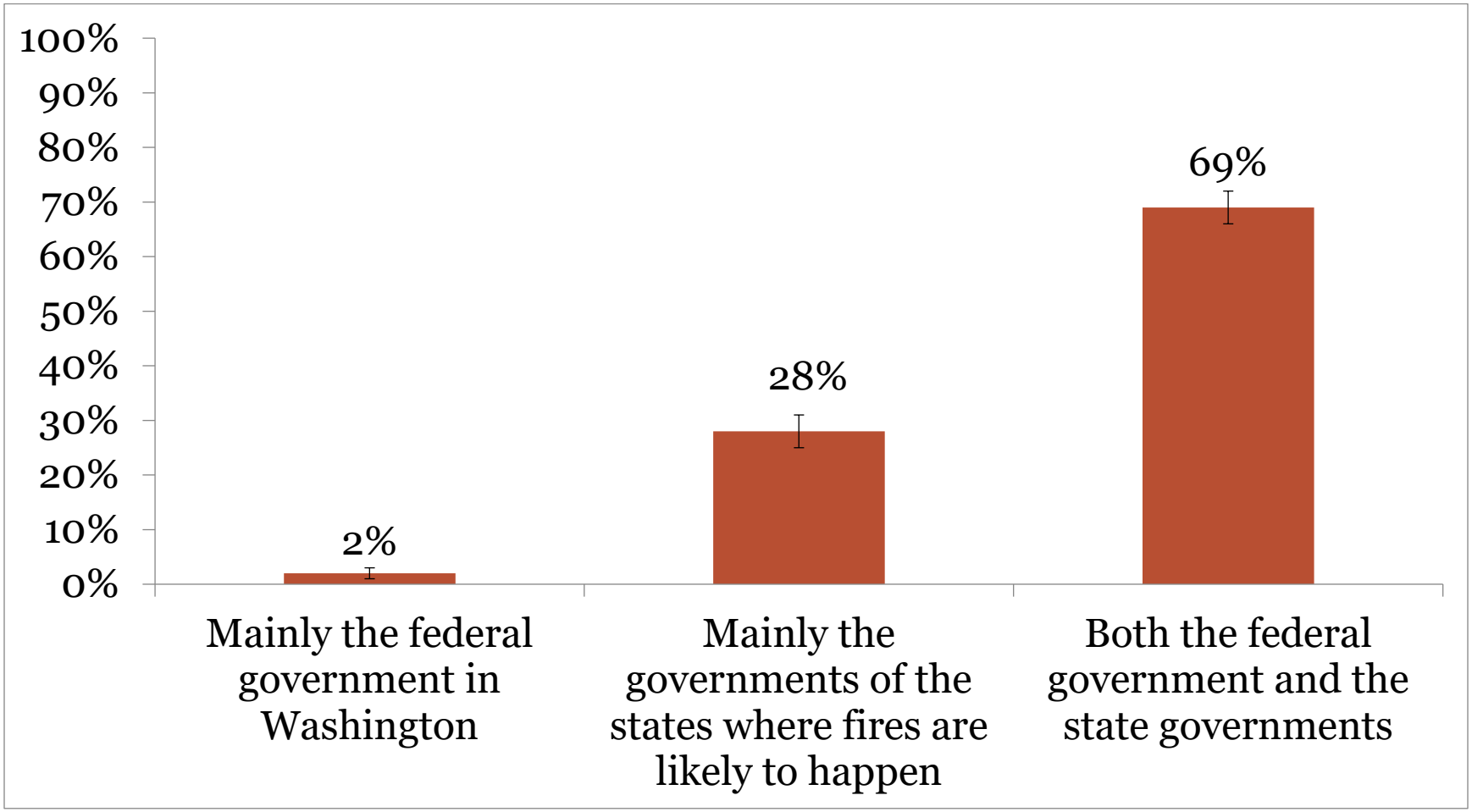

Figure 5. Americans' Opinions on Who Should Pay For the Costs of Preventing Damage From Wildfires

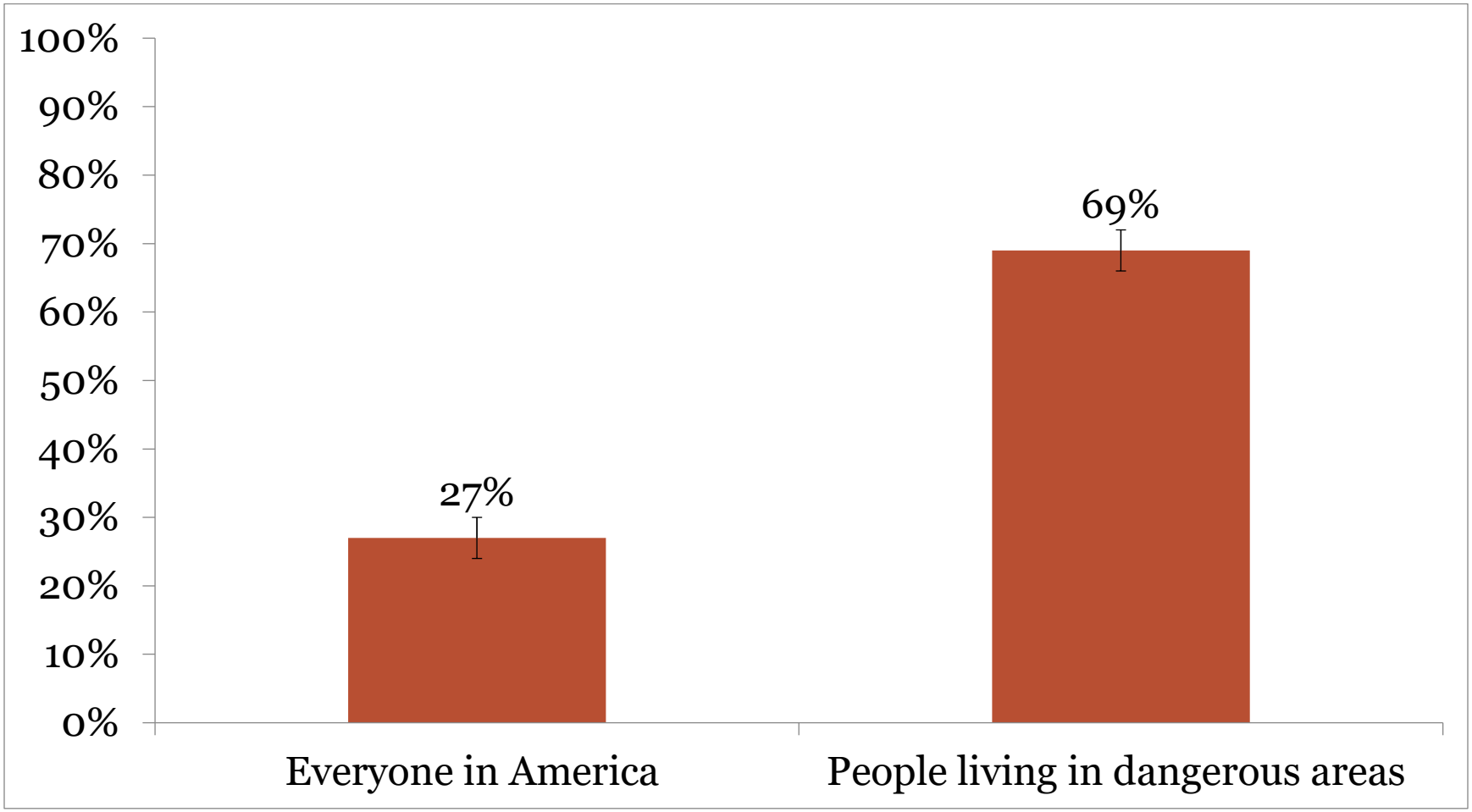

Figure 6. Americans' Opinions on Which Governments Should Take Action on Reducing Floods Damage

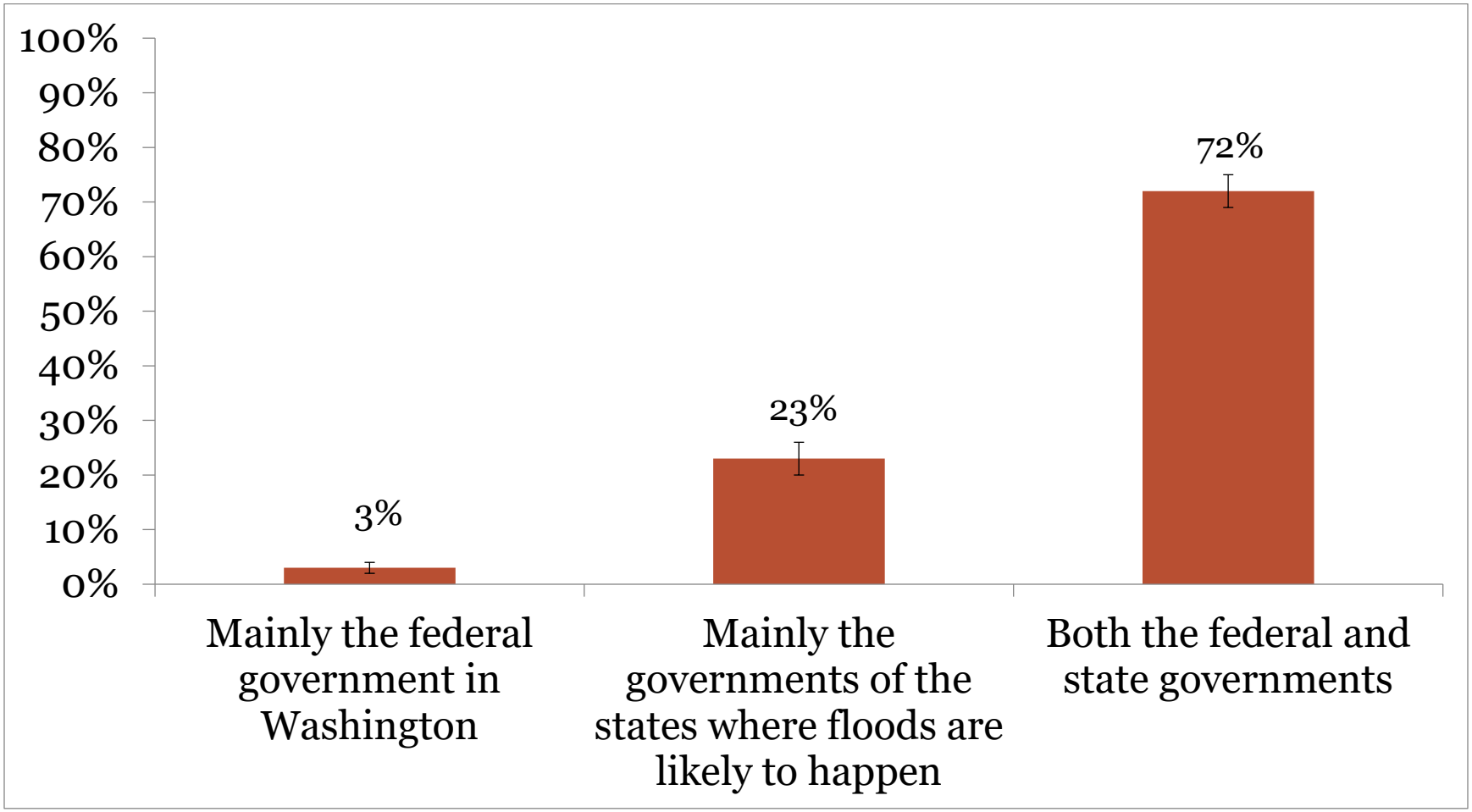

Figure 7. Americans' Opinions on Who Should Pay For the Costs of Preventing Damage From Floods

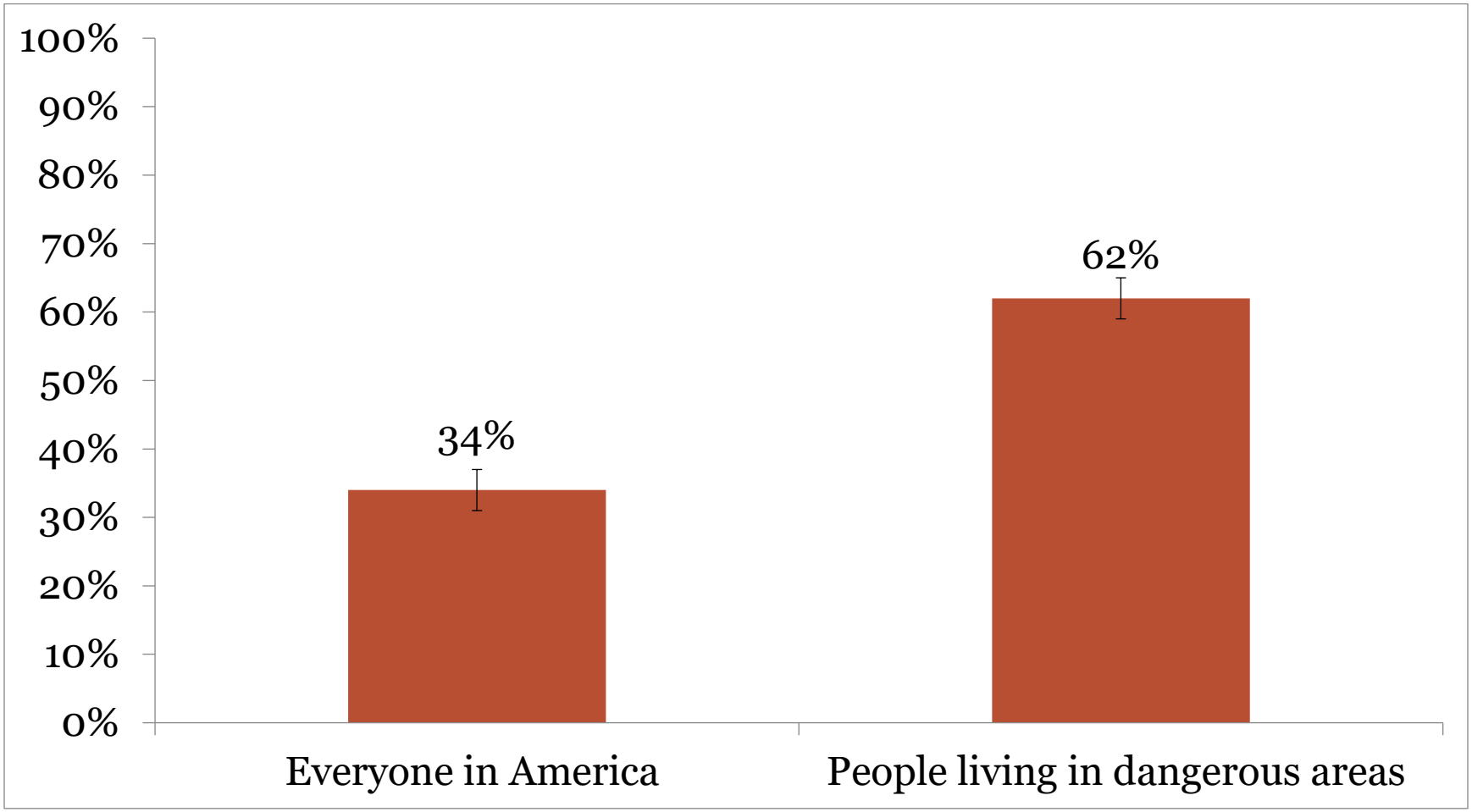

Table 1. Unstandardized OLS regression coefficients predicting support for mitigation policies on wildfires and floods

Predictor	Regression Coefficient (Standard Error)
Disasters attributed to GW	0.057*
	(0.024)
GW has been happening	0.071**
	(0.024)
GW will help you personally	0.017
	(0.020)
GW will help future generations	-0.036+
	(0.020)
GW will hurt you personally	0.052**
	(0.019)
GW will hurt future generations	0.176***
	(0.026)
Liberal	0.029
	(0.021)
Conservative	-0.066**
	(0.022)
Democrat	0.021
	(0.020)
Republican	0.006
	(0.023)
Female	0.043**
	(0.017)
Hispanic	0.100***
	(0.026)
Black	0.082**
	(0.027)
Other race(s)	-0.003
	(0.026)
Age 25 to 34	0.019
	(0.041)
Age 35 to 44	0.007
	(0.037)
Age 45 to 54	0.001
	(0.039)
Age 55 to 64	0.005
	(0.037)
Age 65 or older	0.022
	(0.036)
High school graduate	0.010

Predictor	Regression Coefficient (Standard Error)
	(0.037)
Some college	-0.024
	(0.038)
College graduate	0.012
	(0.038)
Post college	-0.026
	(0.040)
Income $35K+	-0.051*
	(0.022)
Married	-0.016
	(0.017)
Northeast	0.022
	(0.024)
Midwest	0.012
	(0.023)
West	0.009
	(0.020)
Wildfires sample	-0.023
	(0.015)
Constant	0.486***
	(0.057)
R^2	0.378
N	999

Notes. Cell entries are unstandardized OLS regression coefficients (standard errors in parentheses) predicting the policy support index, adjusted for sampling weights. Omitted categories for dummy variables are: moderate, independent, White, age 18-24, less than high school graduate, income less than $35, and South.

*** p<.001 ** p<.01 * p<.05 + p<.10

Table 2. Unstandardized OLS regression coefficients predicting support for federal government's involvement in adaptation policies on wildfires and floods, and all taxpayers' funding for those policies

Predictor	Federal government's Role	Funding by all Taxpayers	Funding by all Taxpayers (wildfires)	Funding by all Taxpayers (floods)
GW will hurt you personally	0.089*	0.042	0.064	-0.012
	(0.037)	(0.042)	(0.057)	(0.061)
GW will hurt future generations	0.196***	0.094*	0.075	0.107
	(0.049)	(0.046)	(0.058)	(0.070)
Liberal	0.050	0.193***	0.225**	0.172*
	(0.044)	(0.051)	(0.072)	(0.070)
Conservative	-0.025	-0.014	0.032	-0.094
	(0.043)	(0.045)	(0.061)	(0.065)
Democrat	0.017	-0.009	-0.007	-0.029
	(0.039)	(0.047)	(0.066)	(0.068)
Republican	-0.106*	-0.061	-0.116*	-0.023
	(0.047)	(0.045)	(0.058)	(0.070)
Female	-0.011	-0.036	-0.042	-0.031
	(0.033)	(0.036)	(0.049)	(0.054)
Hispanic	0.028	0.082	0.069	0.161*
	(0.064)	(0.054)	(0.079)	(0.080)
Black	0.041	0.132*	0.083	0.167+
	(0.061)	(0.066)	(0.091)	(0.092)
Other race(s)	-0.007	0.077	0.080	0.041
	(0.053)	(0.057)	(0.074)	(0.085)
Age 25 to 34	-0.084	-0.034	0.046	-0.094
	(0.086)	(0.085)	(0.129)	(0.111)
Age 35 to 44	0.076	-0.251**	-0.150	-0.315**
	(0.076)	(0.082)	(0.115)	(0.113)
Age 45 to 54	-0.018	-0.213**	-0.149	-0.244*
	(0.083)	(0.082)	(0.113)	(0.115)
Age 55 to 64	0.025	-0.232**	-0.154	-0.267*
	(0.077)	(0.078)	(0.108)	(0.108)
Age 65 or older	0.070	-0.184*	-0.115	-0.222*
	(0.075)	(0.077)	(0.107)	(0.106)
High school graduate	-0.071	0.108	0.140	0.072
	(0.080)	(0.071)	(0.090)	(0.106)
Some college	-0.081	0.083	0.125	0.030
	(0.081)	(0.068)	(0.089)	(0.099)
College graduate	-0.113	0.054	0.063	0.047
	(0.085)	(0.070)	(0.089)	(0.104)
Post college	-0.035	0.145*	0.174+	0.110
	(0.084)	(0.072)	(0.091)	(0.109)
Income $35K+	0.041	0.046	0.066	0.028
	(0.049)	(0.051)	(0.065)	(0.077)
Married	0.012	0.015	0.013	-0.010
	(0.037)	(0.037)	(0.050)	(0.056)

Predictor	Federal government's Role	Funding by all Taxpayers	Funding by all Taxpayers (wildfires)	Funding by all Taxpayers (floods)
Northeast	-0.012	0.038	0.064	-0.005
	(0.052)	(0.052)	(0.075)	(0.073)
Midwest	-0.023	0.039	0.105	-0.028
	(0.044)	(0.046)	(0.064)	(0.064)
West	-0.063	0.059	0.071	0.047
	(0.044)	(0.043)	(0.057)	(0.063)
Wildfires sample	-0.048	-0.065+		
	(0.033)	(0.034)		
Floods risk				0.126
				(0.392)
Constant	0.639***	0.224*	0.037	0.379*
	(0.117)	(0.113)	(0.127)	(0.158)
R^2	0.156	0.185	0.207	0.206
N	976	976	501	475

Notes. Cell entries are unstandardized OLS regression coefficients (standard errors in parentheses) predicting favoring the federal government's role in mitigation policies on fires and floods (column 1), and favoring the public funding for these policies (columns 2-4), adjusted for sampling weights. Floods risk is the risk level as of 2020 in the zip code of the respondent's' residence, and the data source is Flood Factor 2020 by First Street Foundation. Omitted categories for dummy variables are: moderate, independent, White, age 18-24, less than high school graduate, income less than $35, and South.

*** p<.001 ** p<.01 * p<.05 + p<.10

Appendix A. Survey Methodology

Sample Design

Phone numbers used for this study were randomly generated from landline and cell phone sampling frames, with an overlapping frame design. The RDD landline sample was generated through Dynata. The Dynata RDD procedure produces an Equal Probability Selection Method (EPSEM) sample of randomly drawn telephone numbers from all working banks with one or more assigned numbers. The sample was generated shortly before the beginning of data collection to provide the most up-to-date sample possible, maximizing the number of valid telephone extensions. Additional sample was generated during the fielding period to ensure appropriate representation between census regions. The initial landline sample went through Dynata's disconnect screening process. The unlisted phone numbers are sent a 'pulse' to determine switch status. If the switch is not active, the number is flagged disconnected. If the switch is active, the system uses post-call analysis to determine if the number is disconnected (SIT, fax, fast busy etc.) or working (no answer, live answer, answering machine).

The RDD Cell Phone sample was generated by Dynata. Dynata starts with the most recent monthly Telcordia TPM (Terminating Point Master) Data file. This is Telcordia's master file of NPA-NXX and Block-ID records for the North American Number Plan. It contains at least one record per NPA-NXX. For prefixes (NPA-NXXs) where 1000-block number pooling is in effect, this file also provides information for individual 1000-blocks. This allows users to identify those 1000-blocks that have either not been assigned for service or that have been allocated to different service providers. "Mixed" or "shared" 100-blocks (NXXTYPES 50, 54, 66) are then compared to Dynata's list---assisted RDD database. 100-blocks with no listed numbers are retained in the wireless frame and 100-blocks containing listed numbers on the

RDD frame are removed. The result is a frame of 100-blocks that is mutually exclusive of Dynata's list-assisted RDD frame while allowing coverage in prefixes and 1000-blocks that potentially provide both landline and wireless service.

Field Procedures

Because of the onset of the global Covid-19 Pandemic and in order to provide a safe environment for the employees to work, ReconMR shut down on-site operations in March 2020, and turned it into a virtualized call center environment. As such, the survey was conducted by interviewers working from home. Measures were taken to ensure data security and the continued adherence to data quality and data collection standards for ReconMR's work from home solution. Interviewers were set up to connect to ReconMR's data center via a secure, private VPN tunnel. This solution employs end-to-end encryption as well as multi-factor authentication. In addition, all servers remained behind a secure firewall, and all calls were initiated from on-premises devices. ReconMR work-from-home solution allowed for all agents to continue to be live-monitored for quality assurance via our Voxco audio and video monitoring systems.

Interviews were conducted using computer-assisted telephone interviewing (CATI) software. Interviewer training was conducted prior to the study pilot. CATI interviewers received an annotated questionnaire and project materials that explained the history, background, and goals of the study. The background and overview training of the study's various components was followed by a detailed CATI program training. Experienced project team supervisors and trainers spent time reviewing both questionnaires one question at a time with each interviewer. The goal was to fully explain the proper delivery of each question and the reasoning and intent behind all the sections and response option in each questionnaire. Interviewers spent a great deal of time practicing with the CATI program and conducting mock interviews with each other and the data

collection supervisors. Interviewers were carefully trained to ask for the youngest male or the youngest female currently at home when calling a landline. Interviewers were also trained at explaining the purpose of the study, how to gain respondent cooperation by explaining the inherent benefits of the research, how the project will benefit the public good and how to answer respondent's questions, as well as how to record respondents' answers accurately.

In order to maximize survey participation, the following procedures were enacted during the field period:

Up to 5 follow-up attempts were made to contact non-responsive numbers (e.g. no answer, busy, answering machine). Exception was made to records flagged as belonging to census groups greater than 50% Hispanic. These cases received up to 7 follow-up attempts to non-responsive numbers.

- Non-responsive numbers were contacted multiple times, varying the times of day, and the days of the week that call-backs were placed.
- Interviewers stressed that the study was done for research purposes and that responses were strictly confidential and, when asked, they stated as accurately as possible the expected length of the interview. In addition, interviewers were provided with responses to possible respondent concerns raised during interviews, in order to minimize break offs.
- Respondents were offered the option of scheduling a call-back at their convenience.
- Households where the initial call resulted in respondents hanging up the phone or breaking off during the interview were called back after a 28-hour delay in an attempt to convert into a completed interview. Interviewers received special instructions on how to handle these calls.
- Respondents reached by cell phone were offered $10 if they requested compensation for

their time. No such cell phone complaints were made during fielding of either study.

Quality/Data Verification

Project supervisors validated 10% of each interviewer's completed surveys by calling back the respondent and verifying specific responses. Additionally, supervisors continually monitored live calls through ReconMR's call monitoring system in order to ensure proper interviewing procedures were maintained.

Appendix B. Demographics Measures

Respondents reported their sex, age, race, ethnicity, education, income, and zip code. For each of these questions, respondents who did not answer the question were coded with an arbitrary value, and a dummy variable was constructed, coded 1 for respondents who did not answer and 0 otherwise.

Male: "Pardon, but I'm required to verify: are you male or female?" A dichotomous variable "*male*" was set to 1 of respondents who answered "male" and 0 otherwise.

Age. "What is your age?" IF DID NOT ANSWER: "Could you please tell me if you are between the ages of 18 to 24, 25 to 34, 35 to 44, 45-54, 55 to 64, or 65 or older?" Six dummy variables were constructed for six age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65+. *Age 18-24* was the omitted group in the regression.

Race. "I am going to read you a list of five race categories. Please choose one or more races that you consider yourself to be: White; Black or African American; American Indian or Alaska Native; Asian; OR Native Hawaiian or Other Pacific Islander." Dummy variables for *white, black,* and *other race* were constructed and were set to 1 for respondents who selected "White" and nothing else, "Black or African American" and nothing else, and another category or more than one category, respectively, and 0 otherwise. *White* was the omitted group in the regression.

Hispanic ethnicity. "Are you Spanish, Hispanic, or Latino?" A dichotomous variable "*Hispanic*" was set to 1 of respondents who answered "yes" and 0 otherwise.

Education. "What is the highest grade of school you completed? Less than 1st grade, 1st, 2nd, 3rd or 4th grade, 5th or 6th grade, 7th or 8th grade, 9th grade, 10th grade, 11th grade, 12th grade NO DIPLOMA, HIGH SCHOOL GRADUATE-high school DIPLOMA or the equivalent

(For example: GED), Some college but no degree, Associate degree in college - Occupational/vocational program, Associate degree in college - Academic program, Bachelor's degree (For example: BA, AB, BS), Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA), Professional School Degree (For example: MD, DDS, DVM, LLB, JD), and Doctorate degree (For example: PhD, EdD)". Dummy variables for *less than high school graduate, high school graduate, some college, college graduate,* and *post-college* were constructed and set to 1 if respondents who chose any response up to "12 grade NO DIPLOM"; "HIGH SCHOOL GRADUATE-high school DIPLOMA or the equivalent (For example: GED)"; "Some college but no degree", "Associate degree in college - Occupational/vocational program", or "Associate degree in college - Academic program"; "Bachelor's degree (For example: BA, AB, BS)"; and "Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)", "Professional School Degree (For example: MD, DDS, DVM, LLB, JD)", or "Doctorate degree (For example: PhD, EdD)" and 0 otherwise. *Less than high school graduate* was the omitted group in the regression.

Income. **"**The next question is about the total income in 2019 for you and all members of your family who lived with you during 2019, before taxes. Please include money you and all members of your family received from jobs, pensions, social security, interest, dividends, capital gains, profits from businesses, unemployment payments, and all other money received. Adding up the income from all these sources and all other sources, which of the following CATEGORIES best describes your total income of you and all members of your family who lived with you in 2019, before taxes, from all sources? under 20 thousand dollars, 20 to under 35 thousand, 35 to under 50 thousand, 50 to under 75 thousand, 75 to under 100 thousand, 100 thousand or more?" One dummy variable was constructed to contract people with incomes less

than $35,000 with people with higher incomes *Under $35K* was the omitted group in the regression.

Marital status. “Are you married, widowed, divorced, separated or never married?” A dichotomous variable “*married*” was set to 1 of respondents who answered “married” and 0 otherwise.

Region. “What is your five-digit zip code at your home?” Zip codes were matched with states, which were matched with Census regions. Dummy variables for *northeast*, *Midwest*, *south*, and *west* were constructed. *West* was the omitted group in the regression.