

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Comparison of Full American Household Survey Sample With the Study Population

Household Characteristic	Study Sample (N = 16,725)	Excluded Sample (N = 16,749)	American Household Survey (N = 33,474)
Demographic characteristics of the head of the household			
Female, N (%)	7,622 (45.6)	6,740 (54.6)	14,362 (49.4)
Married, N (%)	11,687 (69.9)	2,373 (19.2)	14,060 (48.4)
Black, N (%)	1,969 (11.8)	2,354 (19.1)	4,323 (14.9)
Hispanic/Latino, N (%)	2,696 (16.1)	1,848 (15.0)	4,544 (15.6)
Age \geq 65 years, N (%)	3,579 (21.4)	3,898 (23.3)	7,477 (22.3)
Education of the head of the household			
No high school degree, N (%)	1,772 (10.6)	1,722 (14.0)	3,494 (12.0)
High school degree, N (%)	3,904 (23.3)	2,987 (24.2)	6,891 (23.7)
Some college degree, N (%)	8,497 (50.8)	6,154 (49.9)	14,651 (50.4)
Some graduate degree, N (%)	2,552 (15.3)	1,482 (12.0)	4,034 (13.9)
Additional household characteristics			
Combined household income (\$), Median (IQR)	76,500 (76,500)	35,000 (51,320)	55,600 (76,680)
Household has children age <18 years, N (%)	7,163 (42.8)	1,717 (13.9)	8,880 (30.6)
Household has a person with a disability, N (%)	3,533 (21.2)	2,931 (25.4)	6,464 (22.9)
Census region			
South, N (%)	6,469 (38.7)	6,559 (39.2)	13,028 (38.9)
Northeast, N (%)	2,445 (14.6)	2,643 (15.8)	5,088 (15.2)
West, N (%)	4,568 (27.3)	4,538 (27.1)	9,106 (27.2)
Midwest, N (%)	3,243 (19.4)	3,009 (18.0)	6,252 (18.7)

Notes: The American Housing Survey included 66,752 housing units, of which 33,474 responded to the topical section on emergency and disaster preparedness. The study sample comprises the housing units that responded to the nine questions on specific preparedness items used for the outcome measures.

eTable 2. Survey Questions for 9 Household Preparedness Items

Preparedness Item	American Housing Survey 2017 Question
Food stockpiles	Does your household have available non-perishable food for 3 days?
Water stockpiles	Does household have available at least 3 gallons or 24 bottles of water per person?
Electric generator	Do you have a generator to provide electricity in case there is a power outage?
Carry-on emergency preparedness kit	Does your household have emergency supplies readily available to take with you if you have to evacuate your home?
Financial resources for evacuation	If you had to evacuate from your town or city to a safe place at least 50 miles away, do you have the financial resources, in terms of savings or available credit card balances, to meet expenses of up to \$2,000?
Vehicle available for evacuation	If you had to evacuate from your town or city to a safe place at least 50 miles away do you have enough reliable vehicles to carry all of your household members and a small amount of supplies such as clothes and food?
Alternative communication plan	Do the members of your household have a plan for communicating in the event that cell phone service is disrupted?
Separate evacuation meeting point	If you had to evacuate from your town or city to a safe place at least 50 miles away for at least two weeks, where would you most likely stay during those two weeks?
Plan with financial information	Would you have access to your vital financial information and contact numbers if you had to evacuate your home?

Source: U.S. Department of Housing and Urban Development and U.S. Census Bureau, American Household Survey 2017 codebook, available at <https://www.census.gov/data-tools/demo/codebook/ahs/ahsdict.html> (accessed March 24, 2020).

eTable 3. Sensitivity Analysis on Overall Preparedness With OLS Specification (Continuous Outcome) and Multinomial Logistic Specification (3-Level Outcome)

Household Characteristic	Logistic Regression aOR (95% CI)	OLS Regression beta (se)	Multinomial Logit Regression aOR (95% CI)
Female head of household	0.89 (0.83, 0.96)	-0.13 (0.031)**	0.89 (0.81, 0.98) 0.81 (0.73, 0.90)
Married head of household	1.47 (1.36, 1.59)	0.42099 (0.034)**	1.38 (1.25, 1.52) 1.86 (1.67, 2.08)
Black head of household	0.99 (0.89, 1.10)	-0.032 (0.047)	0.76 (0.66, 0.87) 0.94 (0.80, 1.09)
Hispanic/Latino head of household	0.88 (0.80, 0.97)	-0.16 (0.043)**	0.73 (0.65, 0.83) 0.74 (0.65, 0.85)
Head of household aged ≥ 65 years	1.26 (1.15, 1.39)	0.18 (0.039)**	1.52 (1.33, 1.73) 1.53 (1.33, 1.76)
Head of household with high school diploma (reference: no diploma)	1.35 (1.19, 1.52)	0.34 (0.055)**	1.19 (1.02, 1.39) 1.45 (1.22, 1.72)
Head of household with some college degree (reference: no diploma)	1.39 (1.23, 1.56)	0.34 (0.052)**	1.36 (1.17, 1.57) 1.53 (1.30, 1.81)
Head of household with some graduate degree (reference: no diploma)	1.11 (0.96, 1.28)	0.17 (0.063)*	1.37 (1.13, 1.65) 1.25 (1.01, 1.54)
Combined household income (\$, logged)	1.13 (1.09, 1.18)	0.14 (0.016)**	1.29 (1.23, 1.35) 1.27 (1.21, 1.34)
Household has children <18 years	0.87 (0.81, 0.94)	-0.15 (0.031)**	0.85 (0.77, 0.93) 0.78 (0.71, 0.87)
Household has a person with a disability	0.86 (0.79, 0.94)	-0.14 (0.037)**	0.81 (0.73, 0.91) 0.77 (0.68, 0.87)
Northeast location (reference: South)	0.77 (0.70, 0.85)	-0.28 (0.044)**	0.92 (0.80, 1.06) 0.69 (0.59, 0.80)
West location (reference: South)	0.87 (0.80, 0.95)	-0.11 (0.036)*	0.83 (0.74, 0.94) 0.82 (0.72, 0.92)
Midwest location (reference: South)	0.83 (0.76, 0.91)	-0.24 (0.040)**	0.91 (0.81, 1.04) 0.70 (0.61, 0.81)

Notes: N=16,527. For the OLS regression, * P<0.01, ** P<0.001. Outcome is overall preparedness, on a 0 to 9 scale. The logistic regression specification, used in the manuscript, represents fulfilling 5 or more (at least half) of items. The ordinary least squares specification uses overall preparedness as a continuous outcome and includes P-values to denote statistical significance. The multinomial logistic regression examines three categories of preparedness (low (0-3 items), medium (4-6 items), and high (7-9 items)), with low as the reference category. For each coefficient, there are two odds ratios corresponding to level 2 versus level 1 (i.e., medium versus low) and level 3 versus level 1 (i.e., high versus low). Abbreviations: adjusted odds ratio (aOR), confidence interval (CI).

eTable 4. Sensitivity Analysis of Alternative Methods to Specify Income

Household Characteristic	Linear aOR (95% CI)	Quadratic aOR (95% CI)	Quintiles aOR (95% CI)
Female head of household	0.89 (0.83, 0.96)	0.89 (0.83, 0.95)	0.89 (0.83, 0.95)
Married head of household	1.47 (1.36, 1.59)	1.47 (1.36, 1.59)	1.47 (1.36, 1.58)
Black head of household	0.99 (0.89, 1.10)	0.99 (0.89, 1.10)	0.99 (0.89, 1.10)
Hispanic/Latino head of household	0.88 (0.80, 0.97)	0.88 (0.80, 0.97)	0.88 (0.80, 0.98)
Head of household aged ≥ 65 years	1.26 (1.15, 1.39)	1.26 (1.15, 1.39)	1.28 (1.16, 1.40)
Head of household with high school diploma (reference: no diploma)	1.35 (1.19, 1.52)	1.35 (1.19, 1.52)	1.34 (1.18, 1.51)
Head of household with some college degree (reference: no diploma)	1.39 (1.23, 1.56)	1.39 (1.23, 1.56)	1.37 (1.22, 1.54)
Head of household with some graduate degree (reference: no diploma)	1.11 (0.96, 1.28)	1.10 (0.95, 1.27)	1.10 (0.95, 1.27)
Combined household income (\$, logged)	1.13 (1.09, 1.18)	1.07 (0.81, 1.41)	--
Combined household income, quadratic term (\$, logged)	--	1.00 (0.99, 1.02)	--
Combined household income, quintile 2 (reference: quintile 1)	--	--	1.20 (1.08, 1.33)
Combined household income, quintile 3 (reference: quintile 1)	--	--	1.29 (1.16, 1.44)
Combined household income, quintile 4 (reference: quintile 1)	--	--	1.44 (1.28, 1.61)
Combined household income, quintile 5 (reference: quintile 1)	--	--	1.43 (1.27, 1.62)
Household has children <18 years	0.87 (0.81, 0.94)	0.87 (0.81, 0.94)	0.88 (0.81, 0.94)
Household has a person with a disability	0.86 (0.79, 0.94)	0.86 (0.79, 0.94)	0.87 (0.80, 0.94)
Northeast location (reference: South)	0.77 (0.70, 0.85)	0.77 (0.70, 0.85)	0.77 (0.70, 0.85)
West location (reference: South)	0.87 (0.80, 0.95)	0.87 (0.80, 0.95)	0.87 (0.80, 0.95)
Midwest location (reference: South)	0.83 (0.76, 0.91)	0.83 (0.76, 0.91)	0.83 (0.76, 0.91)

Notes: N=16,527. Outcome is fulfilling at least half of the 9 preparedness items (overall preparedness).

eTable 5. Household Characteristics and Fulfillment of Resource- and Action-Based Preparedness Items Using Logistic Regression Weighting for Nonresponse

Household Characteristic	Value
Demographic characteristics of the head of household	
Female, N (%)	13,447 (49.4)
Married, N (%)	13,773 (50.6)
Black, N (%)	4,158 (15.3)
Hispanic/Latino, N (%)	4,622 (17.0)
Age \geq 65 years, N (%)	6,374 (23.4)
No high school degree, N (%)	3,316 (12.2)
High school degree, N (%)	6,535 (24.0)
Some college degree, N (%)	13,536 (49.8)
Some graduate degree, N (%)	3,822 (14.1)
Additional household characteristics	
Combined household income (\$), Median (interquartile range)	60,000 (80,640)
Household has children <18 years, N (%)	9,087 (33.4)
Household has a person with a disability, N (%)	5,971 (22.0)
Census region: South, N (%)	10,480 (38.5)
Census region: Northeast, N (%)	4,275 (15.7)
Census region: West, N (%)	7,567 (27.8)
Census region: Midwest, N (%)	4,887 (18.0)
Household availability of resource-based disaster preparedness items	
Vehicle available for evacuation, N (%)	25,712 (94.5)
Food stockpiles, N (%)	22,537 (82.8)
Financial resources for evacuation, N (%)	20,640 (75.7)
Water stockpiles, N (%)	16,246 (59.7)
Carry-on emergency preparedness kit, N (%)	14,646 (53.8)
Electric generator, N (%)	4,602 (16.9)
Household availability of action-based disaster preparedness items	
Plan with financial information, N (%)	21,807 (80.1)
Separate evacuation meeting point, N (%)	9,954 (36.6)
Alternative communication plan, N (%)	7,550 (27.8)
Fulfillment of preparedness criteria	
Overall preparedness, N (%)	17,935 (65.9)
Resource-based preparedness, N (%)	17,054 (62.7)
Action-based preparedness, N (%)	10,718 (39.4)

Notes: N=16,725. For fulfillment of overall preparedness, resource-based items, and action-based items, preparedness is defined as meeting at least half of the items in that category. The study sample is limited to participants who responded to the 9 questions on specific preparedness items. To adjust for possible nonresponse bias, this replicates Table 1 from the manuscript using a logistic regression weighting method.

eTable 6. Logistic Regression of Adjusted Odds of Overall, Resource-Based, and Action-Based Preparedness Using Logistic Regression Weighting for Nonresponse

Household Characteristic	Overall Preparedness aOR (95% CI)	Resource-based Preparedness aOR (95% CI)	Action-based Preparedness aOR (95% CI)
Female head of household	0.91 (0.87, 0.96)	0.87 (0.82, 0.91)	0.96 (0.91, 1.01)
Married head of household	1.55 (1.47, 1.64)	1.67 (1.58, 1.77)	1.26 (1.20, 1.33)
Black head of household	0.94 (0.87, 1.01)	0.85 (0.79, 0.92)	1.30 (1.21, 1.40)
Hispanic/Latino head of household	0.83 (0.77, 0.89)	0.92 (0.86, 0.99)	0.92 (0.86, 0.99)
Head of household aged ≥ 65 years	1.26 (1.18, 1.34)	1.54 (1.44, 1.65)	0.93 (0.87, 0.99)
Head of household with high school diploma (reference: no diploma)	1.18 (1.08, 1.29)	1.28 (1.17, 1.40)	1.04 (0.95, 1.14)
Head of household with some college degree (reference: no diploma)	1.23 (1.13, 1.34)	1.31 (1.21, 1.43)	1.03 (0.95, 1.12)
Head of household with some graduate degree (reference: no diploma)	1.01 (0.91, 1.12)	1.09 (0.98, 1.21)	0.94 (0.85, 1.04)
Combined household income (\$, logged)	1.14 (1.12, 1.16)	1.11 (1.09, 1.13)	1.02 (0.99, 1.04)
Household has children <18 years	0.88 (0.83, 0.93)	0.75 (0.71, 0.79)	1.26 (1.19, 1.33)
Household has a person with a disability	0.90 (0.84, 0.96)	0.82 (0.77, 0.87)	1.10 (1.04, 1.17)
Northeast location (reference: South)	0.71 (0.65, 0.76)	0.74 (0.69, 0.80)	0.73 (0.67, 0.78)
West location (reference: South)	0.89 (0.83, 0.95)	0.95 (0.89, 1.02)	0.92 (0.87, 0.98)
Midwest location (reference: South)	0.85 (0.79, 0.91)	0.82 (0.76, 0.88)	0.82 (0.76, 0.88)

Notes: N=16,527. Abbreviations: adjusted odds ratio (aOR), confidence interval (CI).

Preparedness is defined by fulfilling at least half of items. The study sample is limited to participants who responded to the 9 questions on specific preparedness items. To adjust for possible nonresponse bias, this replicates Table 2 from the manuscript using a logistic regression weighting method.

eTable 7: Logistic Regression of Adjusted Odds of Fulfillment of Resource-Based Preparedness Items Using Logistic Regression Weighting for Nonresponse

Household Characteristic	Food Stockpile aOR (95% CI)	Water Stockpile aOR (95% CI)	Electric generator aOR (95% CI)	Carry on emergency kit aOR (95% CI)	Financial resources for evacuation aOR (95% CI)	Evacuation vehicle aOR (95% CI)
Female head of household	1.07 (1.00, 1.15)	0.95 (0.90, 1.00)	0.82 (0.76, 0.87)	0.90 (0.85, 0.94)	0.73 (0.68, 0.78)	1.06 (0.94, 1.20)
Married head of household	1.27 (1.18, 1.36)	1.34 (1.27, 1.42)	1.83 (1.70, 1.97)	1.22 (1.16, 1.29)	2.03 (1.89, 2.18)	2.53 (2.21, 2.90)
Black head of household	0.71 (0.65, 0.78)	1.15 (1.07, 1.24)	0.48 (0.43, 0.54)	1.30 (1.21, 1.40)	0.44 (0.40, 0.48)	0.34 (0.30, 0.39)
Hispanic/Latino head of household	0.66 (0.61, 0.72)	1.48 (1.38, 1.59)	0.63 (0.57, 0.70)	0.98 (0.92, 1.06)	0.62 (0.57, 0.67)	0.49 (0.43, 0.56)
Head of household aged ≥65 years	1.50 (1.38, 1.64)	1.36 (1.27, 1.45)	1.22 (1.13, 1.32)	1.09 (1.02, 1.16)	2.10 (1.92, 2.30)	1.07 (0.94, 1.23)
Head of household with high school diploma (reference: no diploma)	1.18 (1.06, 1.32)	0.89 (0.81, 0.97)	1.20 (1.06, 1.35)	1.06 (0.97, 1.16)	1.69 (1.53, 1.86)	1.07 (0.94, 1.23)
Head of household with some college degree (reference: no diploma)	1.11 (1.01, 1.24)	0.79 (0.73, 0.86)	1.08 (0.96, 1.22)	0.99 (0.92, 1.08)	2.73 (2.48, 2.99)	2.01 (1.73, 2.33)
Head of household with some graduate degree (reference: no diploma)	0.97 (0.85, 1.10)	0.63 (0.57, 0.70)	0.72 (0.62, 0.83)	0.86 (0.77, 0.95)	10.76 (8.98, 12.88)	2.32 (1.83, 2.93)
Combined household income (\$, logged)	1.06 (1.04, 1.09)	0.97 (0.95, 0.99)	1.10 (1.07, 1.13)	1.05 (1.03, 1.07)	1.46 (1.43, 1.50)	1.20 (1.16, 1.24)
Household has children <18 years	0.98 (0.92, 1.06)	0.75 (0.71, 0.79)	0.76 (0.71, 0.83)	0.90 (0.85, 0.95)	0.68 (0.63, 0.73)	1.08 (0.95, 1.23)
Household has a person with a disability	1.05 (0.97, 1.14)	0.89 (0.83, 0.94)	1.19 (1.10, 1.29)	0.96 (0.90, 1.02)	0.54 (0.50, 0.58)	0.57 (0.50, 0.64)

Household Characteristic	Food Stockpile aOR (95% CI)	Water Stockpile aOR (95% CI)	Electric generator aOR (95% CI)	Carry on emergency kit aOR (95% CI)	Financial resources for evacuation aOR (95% CI)	Evacuation vehicle aOR (95% CI)
Northeast location (reference: South)	0.86 (0.78, 0.95)	0.85 (0.79, 0.91)	1.01 (0.91, 1.11)	0.64 (0.60, 0.69)	1.05 (0.95, 1.15)	0.43 (0.38, 0.50)
West location (reference: South)	0.83 (0.77, 0.90)	1.14 (1.07, 1.21)	0.67 (0.62, 0.73)	0.90 (0.85, 0.96)	1.15 (1.06, 1.25)	0.87 (0.75, 1.01)
Midwest location (reference: South)	0.99 (0.90, 1.09)	0.81 (0.76, 0.87)	1.05 (0.96, 1.15)	0.66 (0.62, 0.71)	1.07 (0.97, 1.17)	1.10 (0.93, 1.32)

Notes: N=16,527. Abbreviations: adjusted odds ratio (aOR), confidence interval (CI). The study sample is limited to participants who responded to the 9 questions on specific preparedness items. To adjust for possible nonresponse bias, this replicates Table 3 from the manuscript using a logistic regression weighting method.

eTable 8. Logistic Regression of Adjusted Odds of Fulfillment of Action-Based Preparedness Items Using Logistic Regression Weighting for Nonresponse

Household Characteristic	Alternative communication plan aOR (95% CI)	Alternative meeting location aOR (95% CI)	Plan with financial information aOR (95% CI)
Female head of household	0.96 (0.90, 1.01)	0.97 (0.92, 1.02)	0.99 (0.92, 1.05)
Married head of household	1.18 (1.11, 1.25)	1.23 (1.16, 1.30)	1.25 (1.17, 1.34)
Black head of household	1.57 (1.46, 1.70)	1.21 (1.13, 1.31)	0.91 (0.83, 0.99)
Hispanic/Latino head of household	1.07 (0.99, 1.16)	0.90 (0.84, 0.97)	0.68 (0.62, 0.73)
Head of household aged ≥ 65 years	0.90 (0.84, 0.97)	0.84 (0.79, 0.90)	1.17 (1.08, 1.27)
Head of household with high school diploma (reference: no diploma)	1.05 (0.96, 1.15)	1.04 (0.95, 1.14)	1.22 (1.11, 1.35)
Head of household with some college degree (reference: no diploma)	0.96 (0.88, 1.05)	1.04 (0.96, 1.14)	1.49 (1.35, 1.63)
Head of household with some graduate degree (reference: no diploma)	0.90 (0.80, 1.00)	0.96 (0.86, 1.07)	1.55 (1.37, 1.76)
Combined household income (\$, logged)	0.95 (0.93, 0.97)	1.01 (0.99, 1.03)	1.26 (1.23, 1.29)
Household has children <18 years	1.11 (1.04, 1.18)	1.27 (1.2, 1.34)	0.95 (0.88, 1.02)
Household has a person with a disability	1.07 (1.00, 1.15)	1.13 (1.07, 1.21)	0.83 (0.77, 0.90)
Northeast location (reference: South)	0.76 (0.70, 0.82)	0.73 (0.67, 0.79)	0.77 (0.70, 0.84)
West location (reference: South)	1.06 (0.99, 1.14)	0.98 (0.92, 1.04)	0.74 (0.69, 0.81)
Midwest location (reference: South)	0.77 (0.71, 0.84)	0.94 (0.88, 1.01)	0.82 (0.75, 0.90)

Notes: N=16,527. Abbreviations: adjusted odds ratio (aOR), confidence interval (CI). The study sample is limited to participants who responded to the 9 questions on specific preparedness items. To adjust for possible nonresponse bias, this replicates Table 4 from the manuscript using a logistic regression weighting method.

eTable 9. Correlations Among Fulfillment of Specific Preparedness Items

Item	Water stockpile	Electric generator	Carry on emergency kit	Financial resources for evacuation	Evacuation vehicle	Alternative communication plan	Alternative meeting location	Plan with financial information
Food stockpile	0.273	0.108	0.253	0.144	0.088	0.098	0.118	0.180
Water stockpile		0.100	0.347	0.088	0.042	0.225	0.184	0.119
Electric generator			0.117	0.119	0.053	0.044	0.061	0.077
Carry on emergency kit				0.111	0.059	0.331	0.305	0.246
Financial resources for evacuation					0.209	0.032	0.052	0.227
Evacuation vehicle						0.020	0.048	0.106
Alternative communication plan							0.522	0.143
Alternative meeting location								0.160

Notes: Pearson correlation coefficients. P-values are not provided because with such a large sample, many associations are statistically significant although not meaningful qualitatively.