

**The Impact of Hurricane Harvey
 Survey 2, Summer 2018**

Table 1. “Please tell me if this was extremely serious, very serious, somewhat serious, or not serious at all for you and your family as a result of Hurricane Harvey. Also tell me if it did not happen to you.”

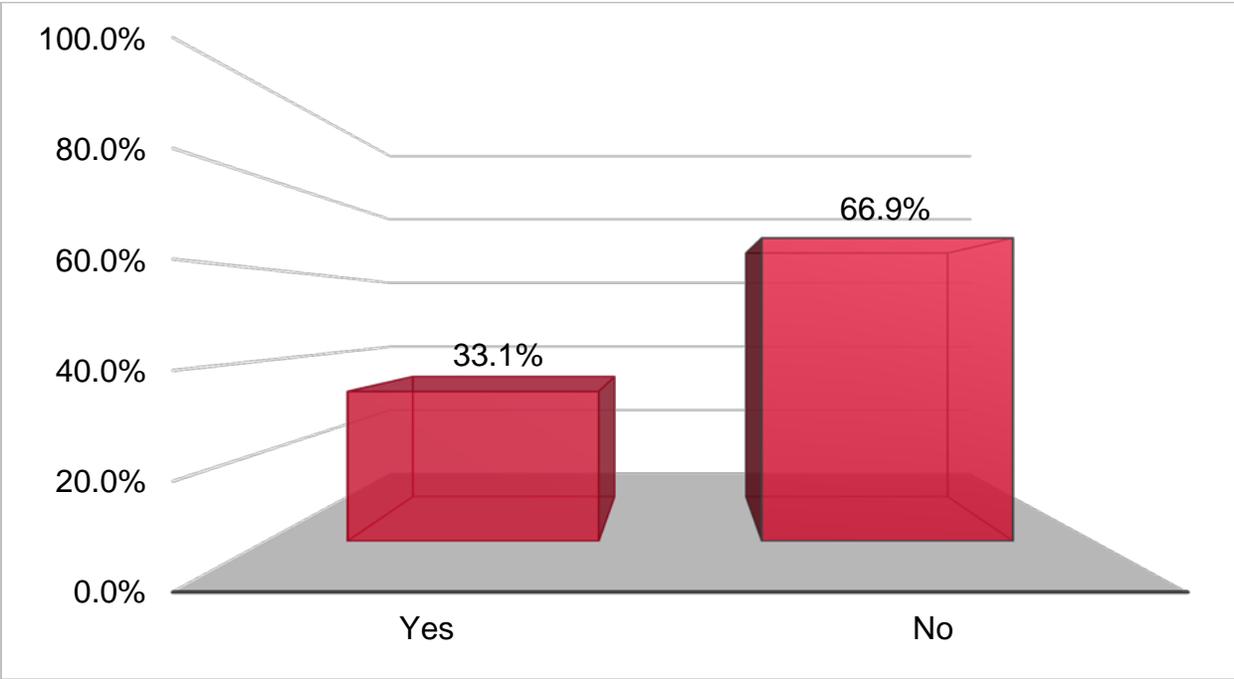
Damage	Extremely Serious	Very Serious	Somewhat Serious	Not Serious At All	Did Not Happen	Non-response
Flood damage to car	6.8%	4.7%	3.4%	4.4%	80.4%	0.3%
Economic damages such as lost wages or unplanned expenses	7.9%	11.2%	24.5%	9.4%	46.7%	0.4%
Health problems	1.7%	4.8%	9.9%	7.1%	76.5%	0.1%

N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Four-fifths (80.4%) of the respondents mentioned that Hurricane Harvey did not cause flood damage to their and their families’ cars. Moreover, more than three-fourths (76.5 %) of the respondents said that Hurricane Harvey did not bring any health problems to themselves and their families. Less than half (46.7%) of the respondents indicated that Hurricane Harvey did not cause economic damages to themselves and their families; however more than half (53.0%) suffered some level of economic difficulty. Finally, less than one-tenth of the respondents mentioned that they and their families suffered extremely serious car damages (6.8%) and economic damages (7.9%).

Figure 1. “Did you have any damage to your residence?”

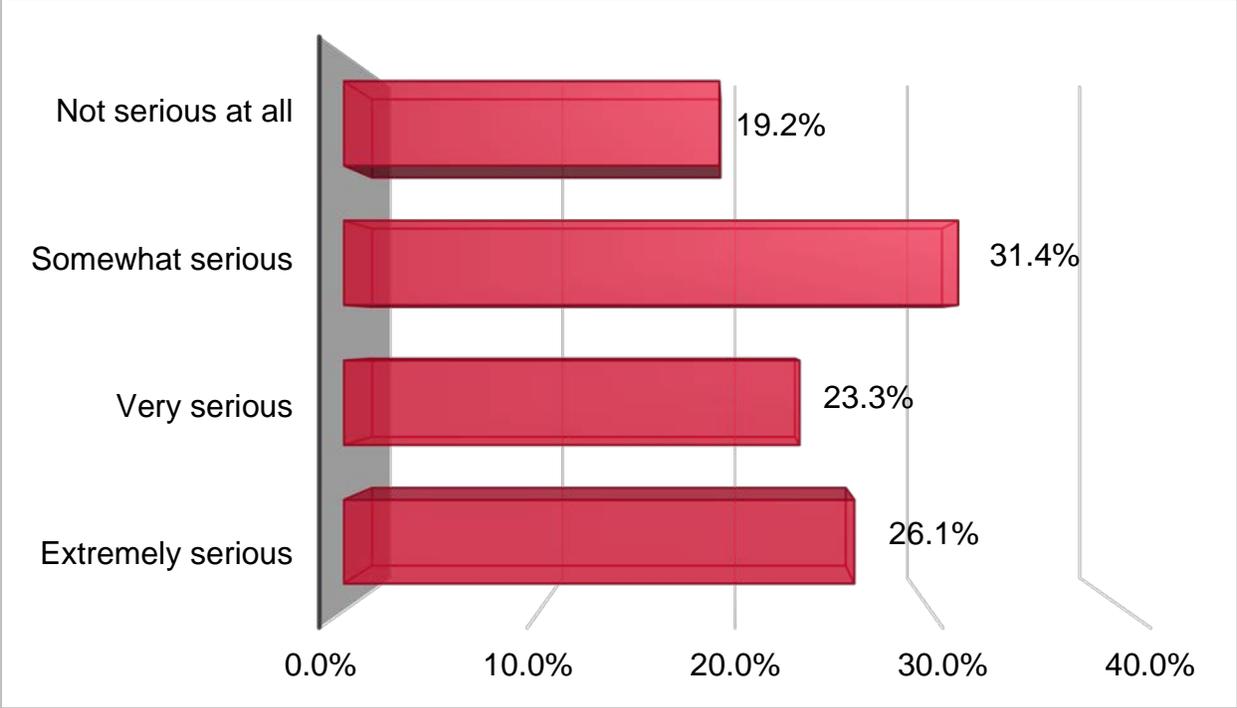


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

One-third (33.1%) of the respondents mentioned that they had damage to their residences as a result of Hurricane Harvey.

Figure 2. “How serious was the damage to your residence? Was it extremely serious, very serious, somewhat serious, or not serious at all?”

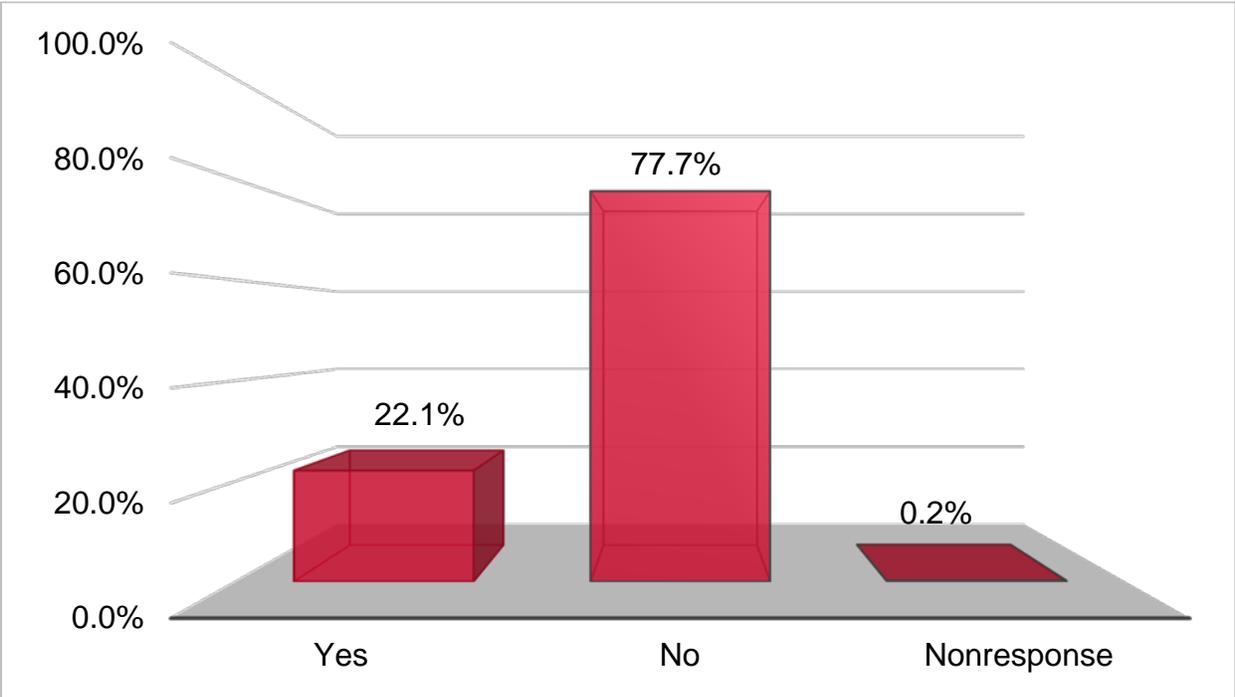


N = 373

Note: Only respondents who had damage to their residence were further asked this question.

For those who had damage to their residences due to Hurricane Harvey, more than one-fourth (26.1%) of them mentioned that the damage to their residence was extremely serious, whereas another 23.3 percent said that the damage was very serious. Nearly one-fifth (19.2%) mentioned that the damage was not serious at all.

Figure 3. “Did you have to move from your residence because of Hurricane Harvey?”

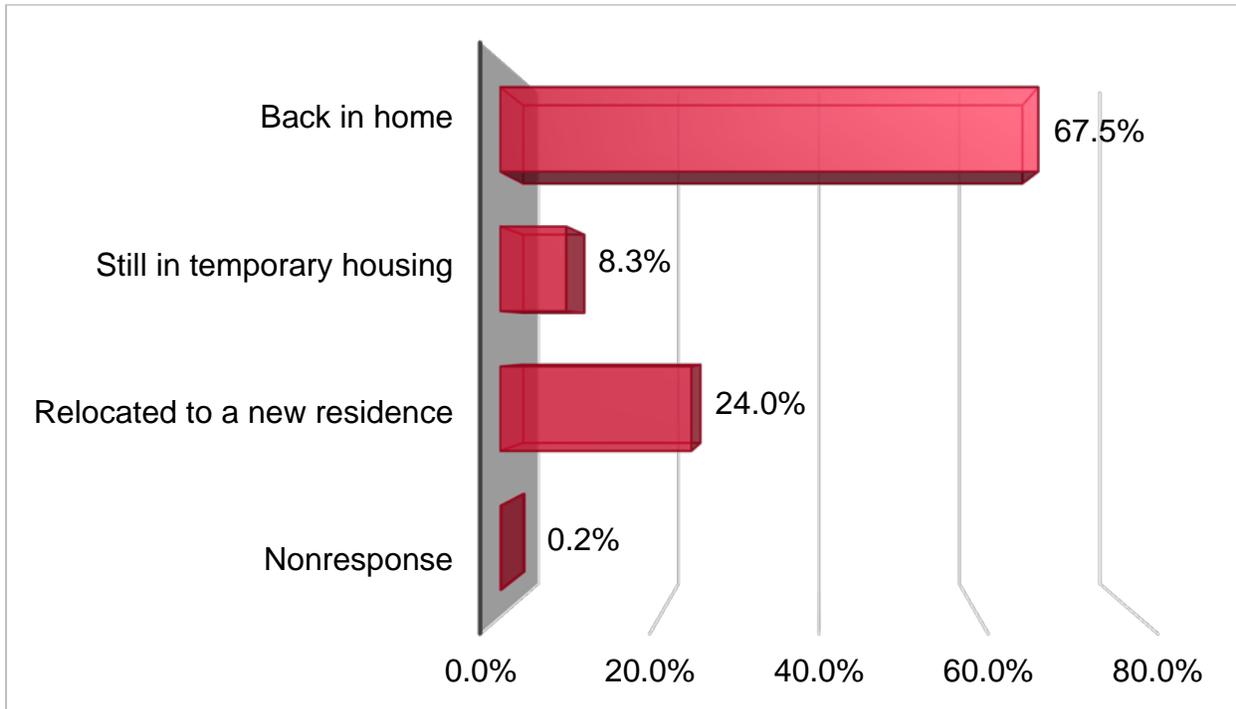


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than one-fifth (22.1 percent) of the respondents had to move from their residences as a result of Hurricane Harvey.

Figure 4. “Have you moved back into your residence, are you still living in temporary housing, or have you relocated to a new residence?”



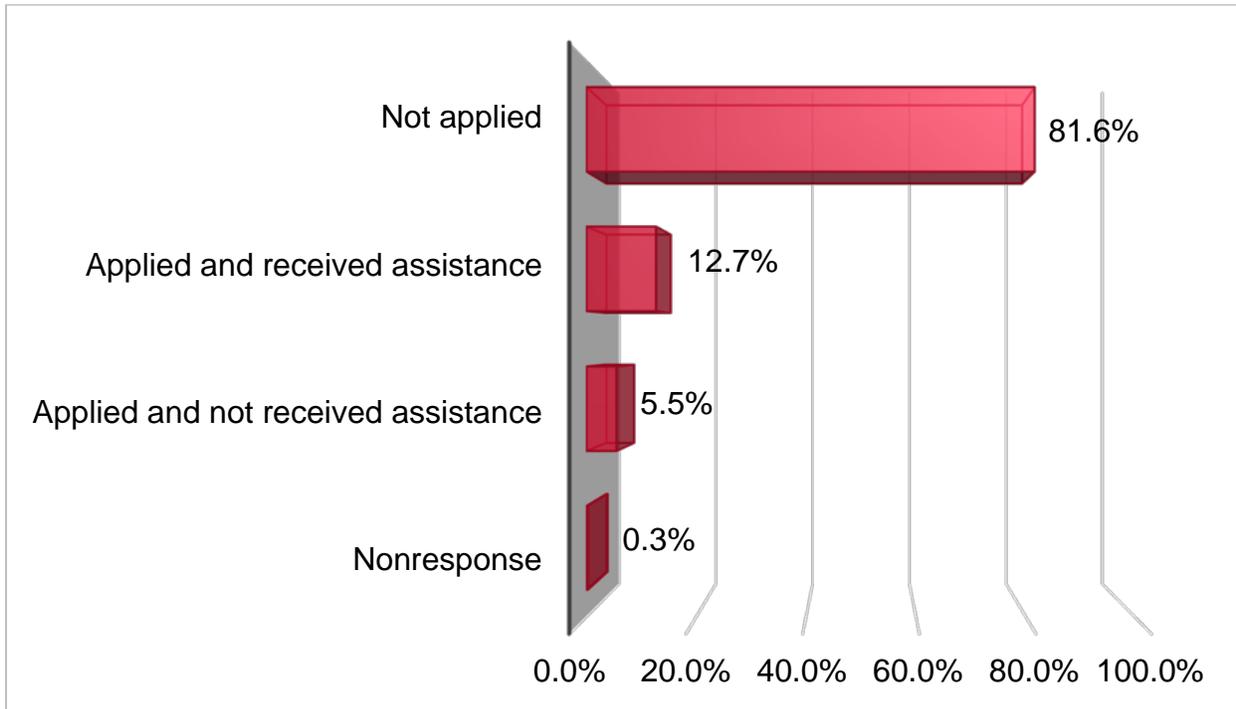
N = 219

Note: 1. Only respondents who had to move from their residence because of Hurricane Harvey were asked this question.

2. Nonresponse includes “Don’t know” and “Refused”.

Those who had to leave from their residences because of Hurricane Harvey were asked whether they have moved back into their residence, are stilling living in temporary housing or have relocated to a new residence. Slightly more than two-thirds (67.5%) of the respondents have moved back into their residences, whereas nearly one-fourth (24.0%) of the respondents have relocated to a new residence.

Figure 5. “Have you applied to or received assistance from the Federal Emergency Management Administration (FEMA)?”



N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than four-fifths (81.6%) of the respondents have not applied for assistance from FEMA. Only about 12.7 percent of the respondents applied and received assistance from FEMA, whereas approximately 5.5 percent said that their applications had been denied.

Table 2. “What type of assistance from FEMA have you received?”

Type of assistance	Yes	No	Nonresponse
Rental/lodging	19.0%	71.7%	9.4%
Grants or loans to repair home	49.1%	41.5%	9.4%
Grants or loans to replace lost property	26.3%	64.3%	9.4%
Other	24.8%	65.9%	9.4%

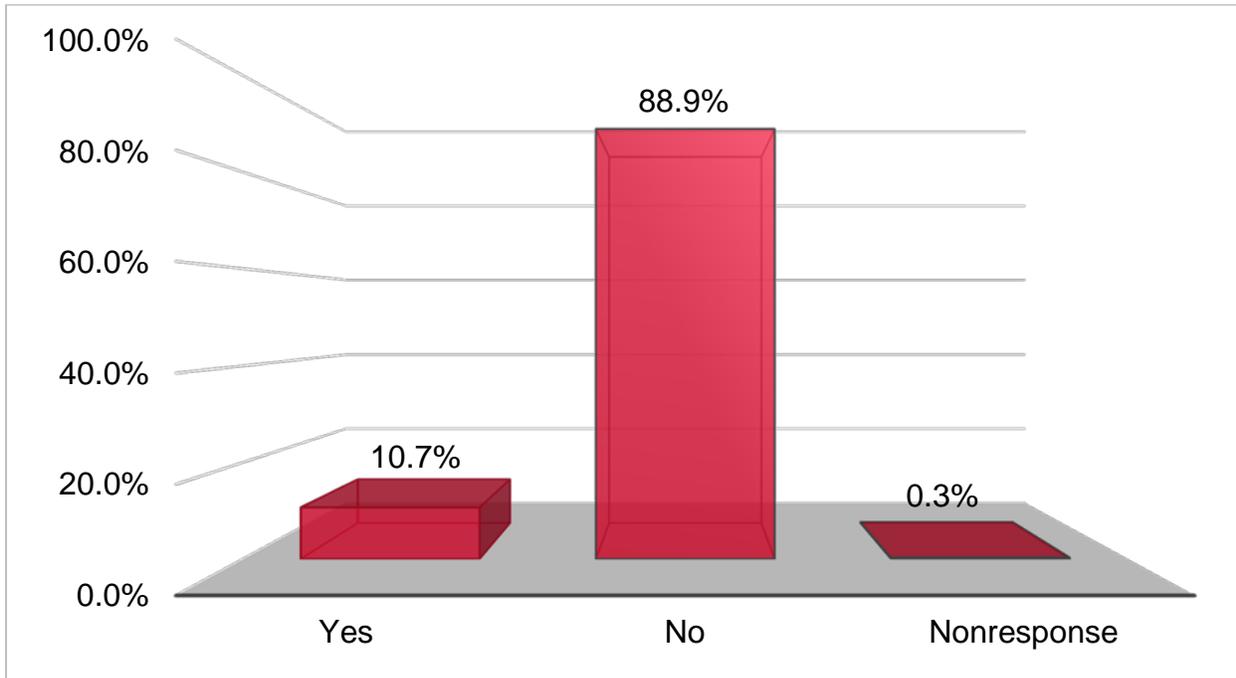
N = 134

Note: 1. Only respondents who applied and received assistance from FEMA were asked this question.

2. Nonresponse includes “Don’t know” and “Refused”.

Among the respondents who applied and received assistance from FEMA, 49.1 percent of them received grants or loans to repair their homes, whereas another 19.0 percent received rental/lodging assistance from FEMA. In addition, 26.3 percent received grants or loans to replace their lost properties.

Figure 6. “Have you received an insurance payment for your losses from Hurricane Harvey?”

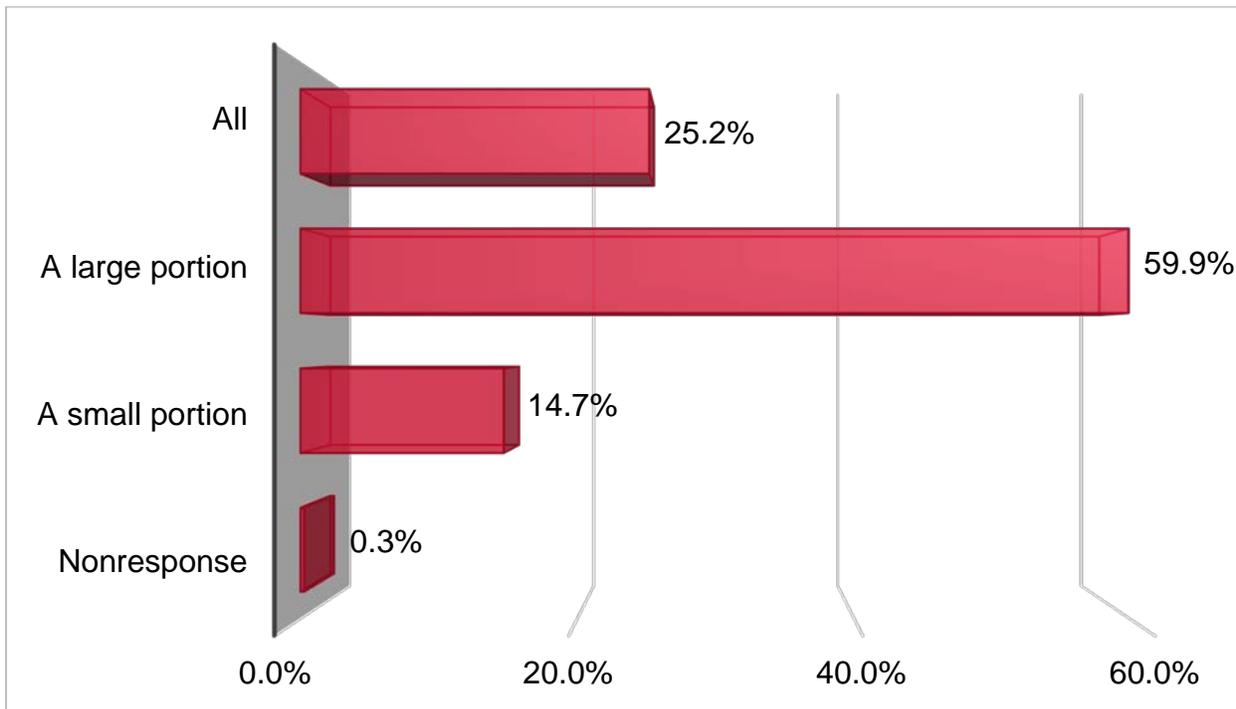


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Eleven percent (10.7%) of the respondents have received an insurance payment for their losses due to Hurricane Harvey.

Figure 7 “Did your insurance payment cover all, a larger portion, or a small portion of your losses from Hurricane Harvey?”



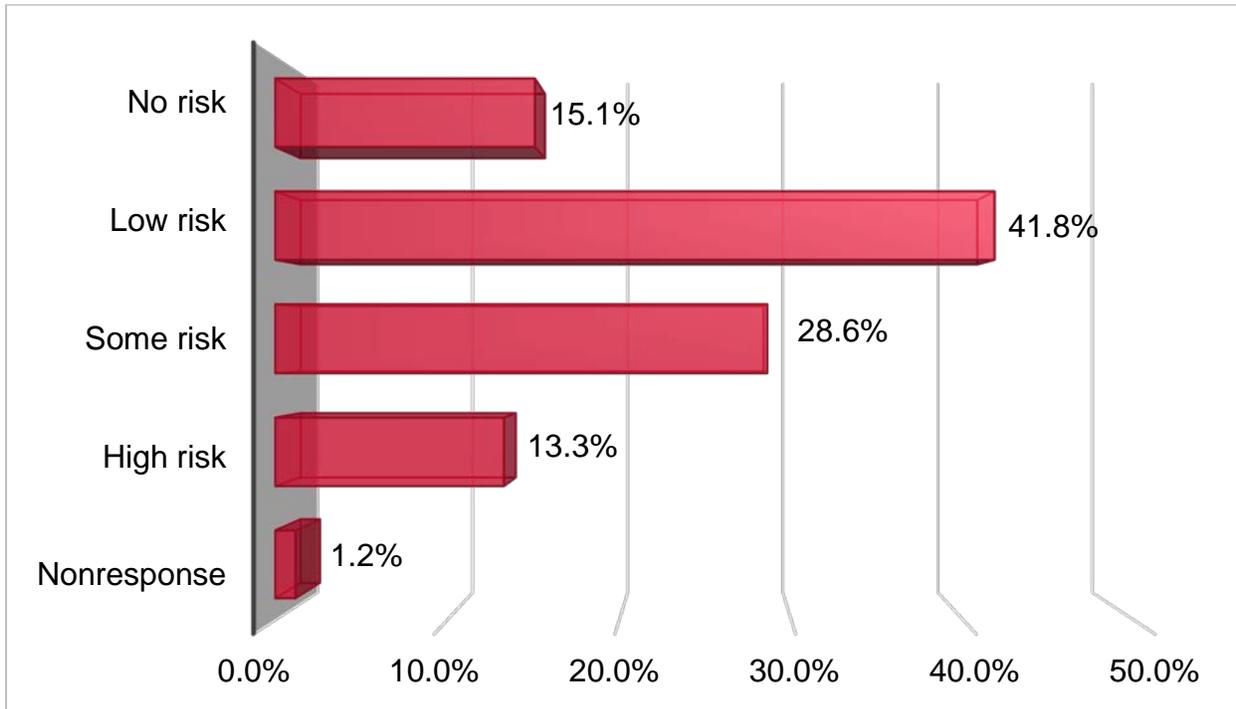
N = 146

Note: 1. Only respondents who have received an insurance payment for their losses from Hurricane Harvey were asked this question.

2. Nonresponse includes “Don’t know” and “Refused”.

Among the respondents who have received an insurance payment for their losses due to Hurricane Harvey, 60 percent (59.9%) of the respondents said that their insurance payment covered a large portion of their losses from Hurricane Harvey. In addition, one-fourth (25.2%) of the respondents mentioned that their insurance payment covered all of their losses from Hurricane Harvey.

Figure 8. “Do you believe your residence is located in an area where there is no risk, low risk, some risk, or high risk for future flooding?”

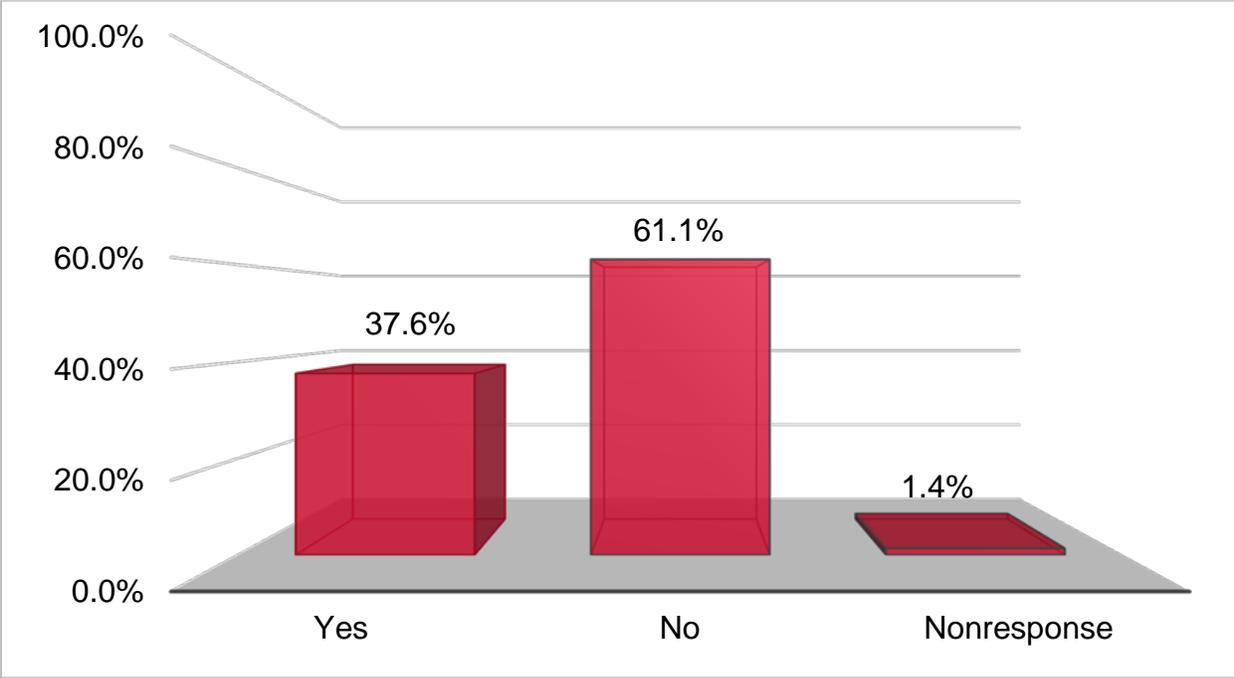


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-fifths (41.9%) of the respondents believed that their residences are located in an area where there is either some risk or high risk for future flooding. Only 15.1 percent thought that their residences is located in an area without risk for future flooding.

Figure 9. “Since Hurricane Harvey, have you and your family taken any actions to protect yourself and your residence from future severe storms?”



N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than one-third (37.6%) of the respondents mentioned that they and their families have taken actions to protect themselves and their residences from future severe storms since Hurricane Harvey.

Table 3. “Do you support or oppose this policy proposed and adopted by area governments to protect the Houston area from the effects of severe weather?”

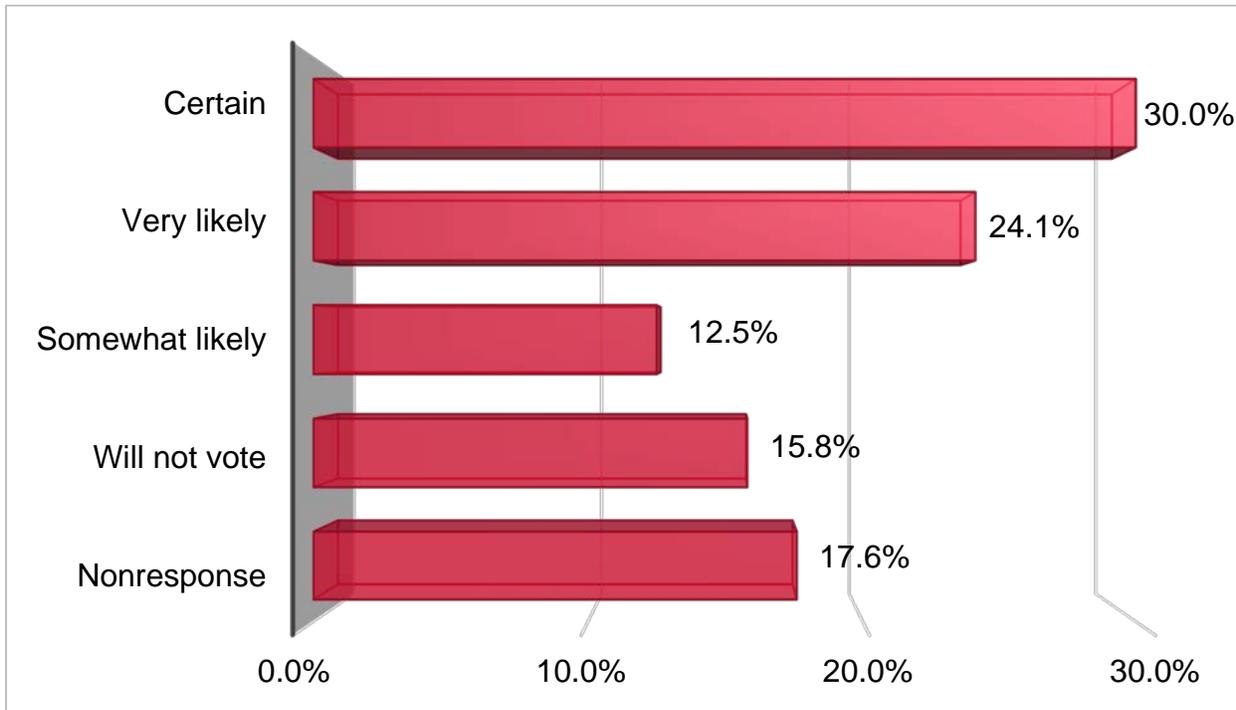
Policy	Support	Oppose	Nonresponse
A program to buy homes in areas that have repeatedly flooded with local state and federal moneys	63.3%	31.1%	5.7%
Construction of a new reservoir to protect the western portion of the Houston area	79.4%	10.6%	10.0%
Greater restrictions on construction in flood plains	88.1%	8.6%	3.3%
New building codes that require homes built in flood prone areas be elevated/raised to avoid flooding	87.2%	9.5%	3.3%
Widening bayous and channels	84.2%	9.6%	6.2%

N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

In regard to proposed policies to protect the Houston area from the effects of severe weather, more than four-fifths of the respondents support greater restrictions on construction in flood plains (88.1%), new building codes that require homes built in flood prone areas be elevated/raised to avoid flooding (87.2%), and widening bayous and channels (84.2%). In addition, nearly four-fifths (79.4%) of the respondents support construction of a new reservoir to protect the western portion of the Houston area. By contrast, 63 percent (63.3%) of the respondents support a program to buy homes in areas that have repeatedly flooded with local state and federal moneys.

Figure 10. “This August, Harris County voters will be asked to approve a \$2.5 billion bond to fund flood risk reduction projects throughout the county. How likely are you to vote in this August bond election? Are you certain to vote, very likely to vote, somewhat likely to vote, will not vote, or are you uncertain if you will vote in this August’s County bond election?”



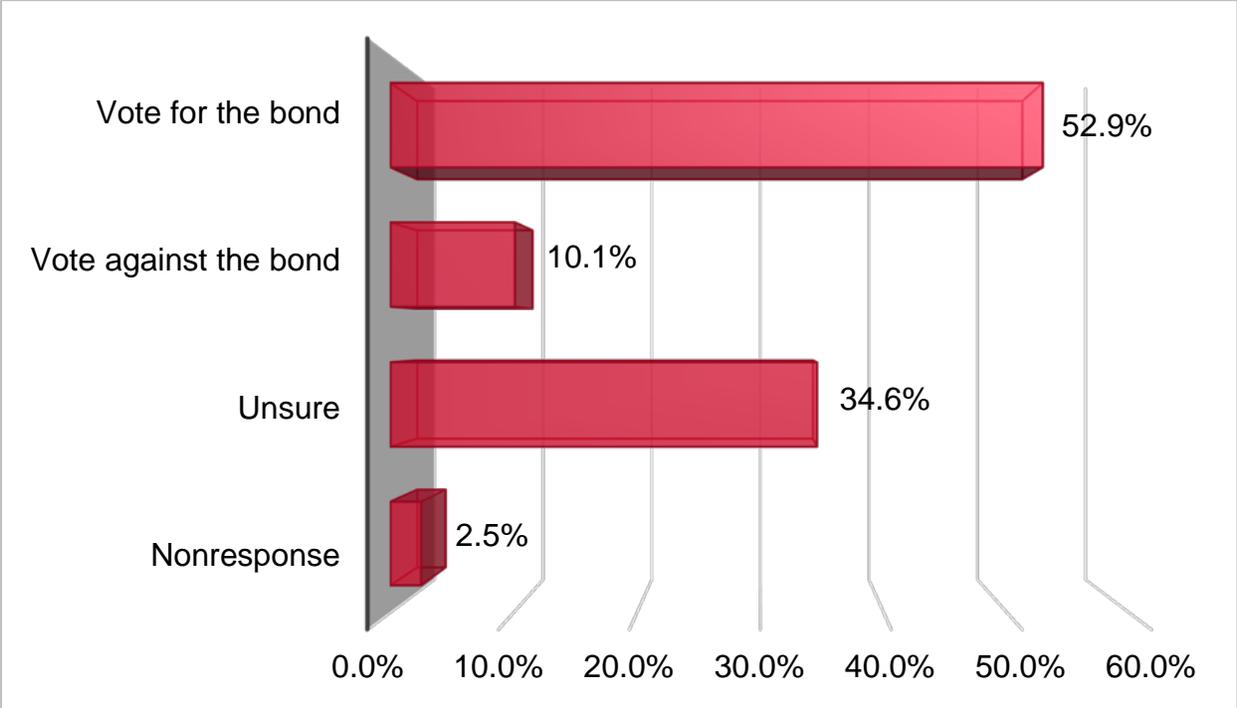
N = 815

Note: 1. Only respondents living in Harris County were asked this question.

2. Nonresponse includes “Don’t know” and “Refused”.

More than half (54.1%) of the respondents living in Harris County are either certain or very likely to vote in the bond election.

Figure 11. “According to the Harris County Budget Office, the bond would increase property taxes by \$5 a year beginning in 2020 for a person whose home is worth \$230,000, increasing to \$50 a year by 2035. A homeowner whose home is worth \$300,000 will pay about \$7 more in property taxes per year beginning in 2020, increasing to \$80 a year by 2035. Persons over 65 whose homes are worth less than \$200,000 do not pay county taxes and would not pay any additional property taxes. Would you vote for or against the bond issue, or are you uncertain how you would vote?”



N = 815

- Note: 1. Only respondents living in Harris County were asked this question.
- 2. Nonresponse includes “Don’t know” and “Refused”.

More than half (52.9%) of the respondents living in Harris County would vote for the bond, whereas about one-tenth (10.1%) would vote against the bond. Additionally, more than one-third (34.6%) of the respondents in Harris County are not sure how they would vote.

Table 4. “Would you be willing to pay 1.4%, 5% or 10% more in property taxes to implement the infrastructure projects to reduce the risk of [Control: severe flood events; Treatment 1: 100-year flood events; Treatment 2: 200-year flood events; Treatment 3: 500-year flood events], or would you not be willing to pay any more in property taxes to implement infrastructure projects?”

Treatment Condition	No increase	1.4%	5%	10%	Non-response	N
Control	27.2%	32.5%	24.8%	6.9%	8.6%	274
Treatment 1	26.2%	37.6%	18.2%	3.4%	14.7%	280
Treatment 2	22.3%	34.9%	27.4%	10.8%	4.6%	262
Treatment 3	31.5%	48.5%	12.9%	1.2%	5.9%	257

Note: 1. Respondents were randomly assigned to different treatment conditions in terms of different information about flood events: Control: severe flood events; Treatment 1: 100-year flood events; Treatment 2: 200-year flood events; Treatment 3: 500-year flood events.

2. Nonresponse includes “Don’t know” and “Refused”.

Overall, the majority of respondents are willing to pay more in property taxes to implement flood mitigation projects.

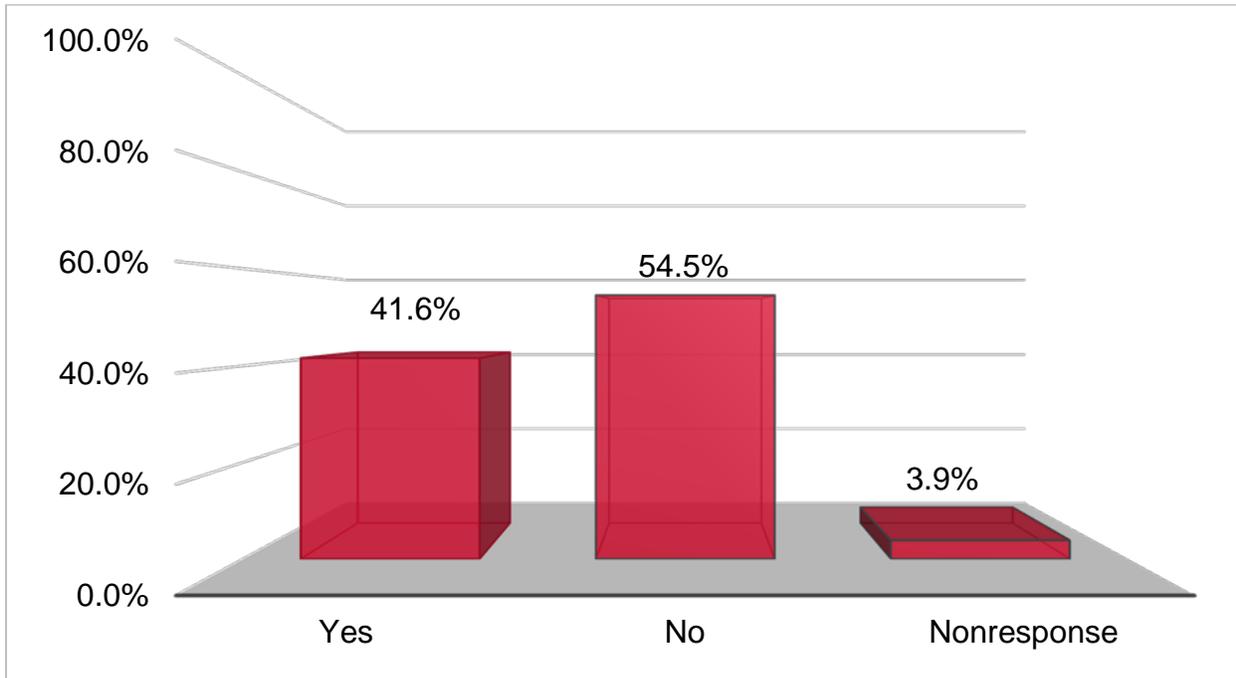
For the respondents in the control group, more than three-fifths (64.2%) of the respondents are willing to pay more in property taxes to implement the infrastructure projects to reduce the risk of severe flood events: 32.5 percent are willing to pay 1.4% more in property taxes, 24.8 percent are willing to pay 5% more while 6.9 percent are willing to pay 10% more. However, more than one-fourth (27.2%) of the respondents are not willing to pay any more in property taxes to implement infrastructure projects.

For the respondents who received the information about a 100-year flood event, nearly three-fifths (59.2%) of the respondents are willing to pay more in property taxes to implement infrastructure projects: 37.6 percent are willing to pay 1.4% more in property taxes, 18.2 percent are willing to pay 5% more, and 3.4 percent are willing to pay 10% more. In contrast, more than one-fourth (26.2%) of the respondents are not willing to pay any more in property taxes to implement infrastructure projects.

For the respondents who received the information about a 200-year flood event, a majority of 73.1 percent are willing to pay more in property taxes at some level for flood mitigation efforts: specifically 34.9 percent are willing to pay 1.4% more, 27.4 percent are willing to pay 5% more, and 10.8 percent are willing to pay 10% in property taxes. However, 22.3 percent are not willing to pay more in property taxes to implement infrastructure projects.

Finally, for the respondents who received the information about a 500-year flood event, more than three-fifths (62.6%) of the respondents are willing to pay more in property taxes to implement infrastructure projects to reduce severe flooding; specifically 48.5 percent are willing to pay 1.4% more, 12.9 percent are willing to pay 5% more and 1.2 percent are willing to pay 10% more. More than three-tenths (31.5%) of the respondents are not willing to pay any more in property taxes to implement infrastructure projects.

Figure 12. “In order to balance the budget, do you support an income tax increase on any tax bracket?”

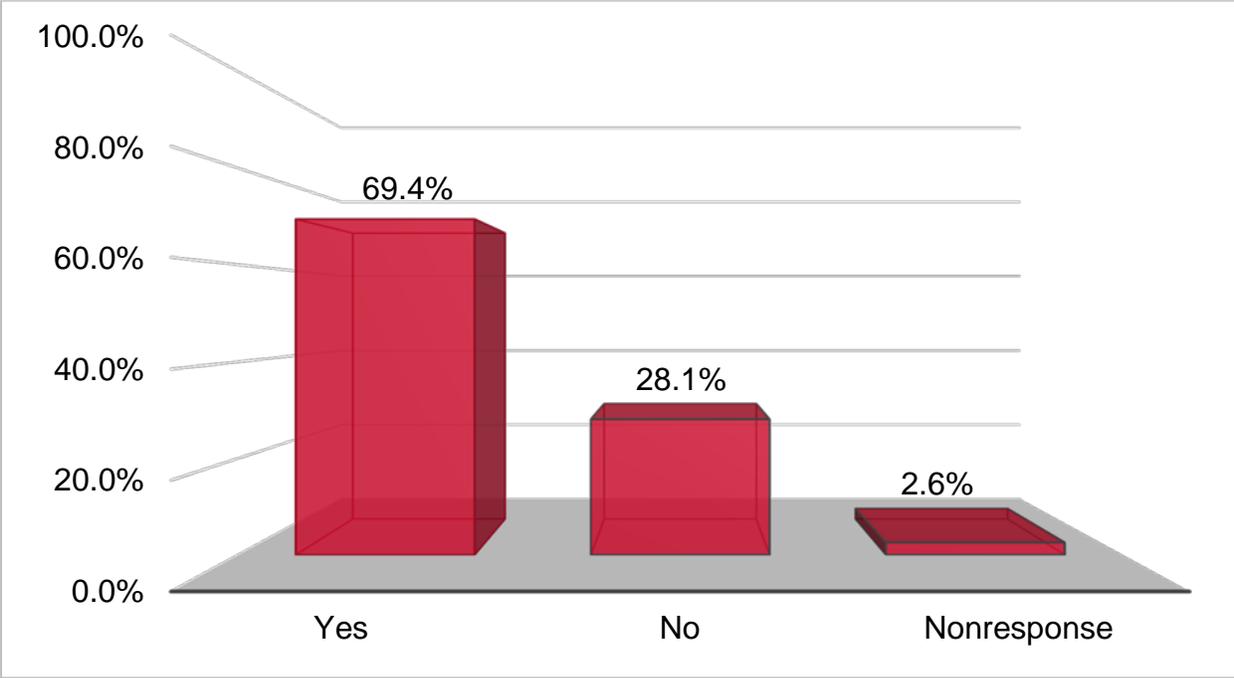


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than half (54.5%) of the respondents do not support an income tax increase on any tax bracket for the purpose of balancing the budget.

Figure 13. “Do you support government spending as a means of promoting economic growth?”

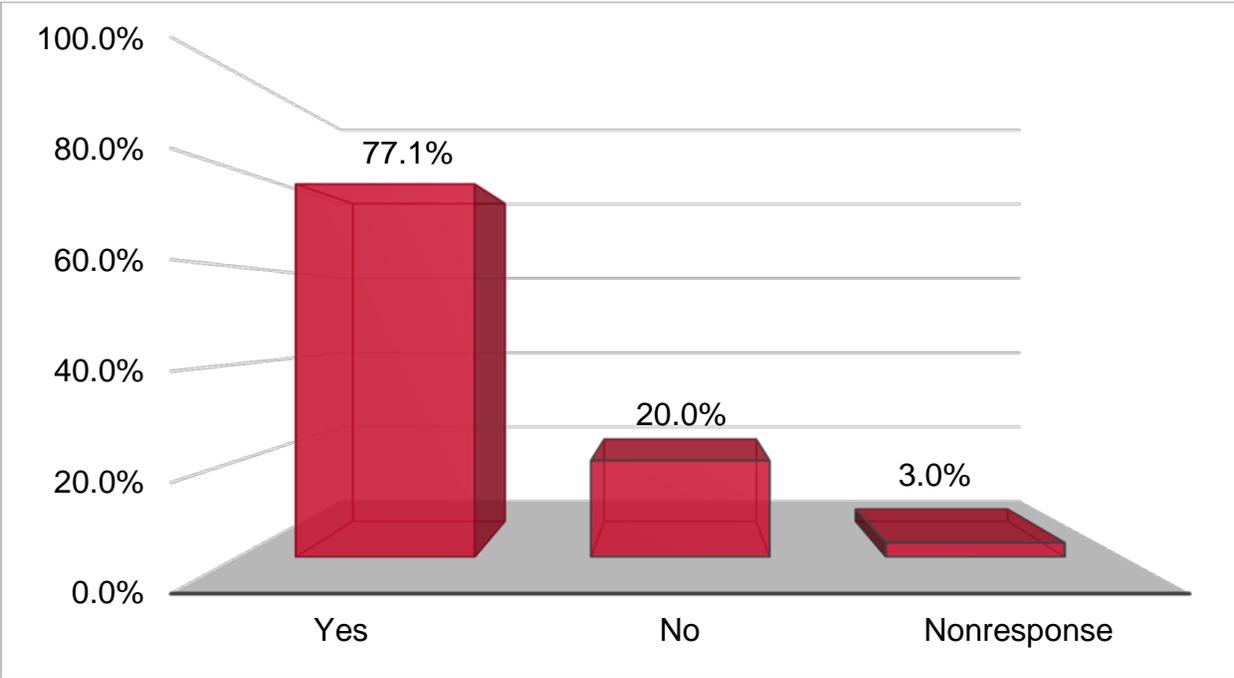


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-thirds (69.4%) of the respondents are in favor of using government spending as a means of promoting economic growth.

Figure 14. “Do you support an increase of the minimum wage?”

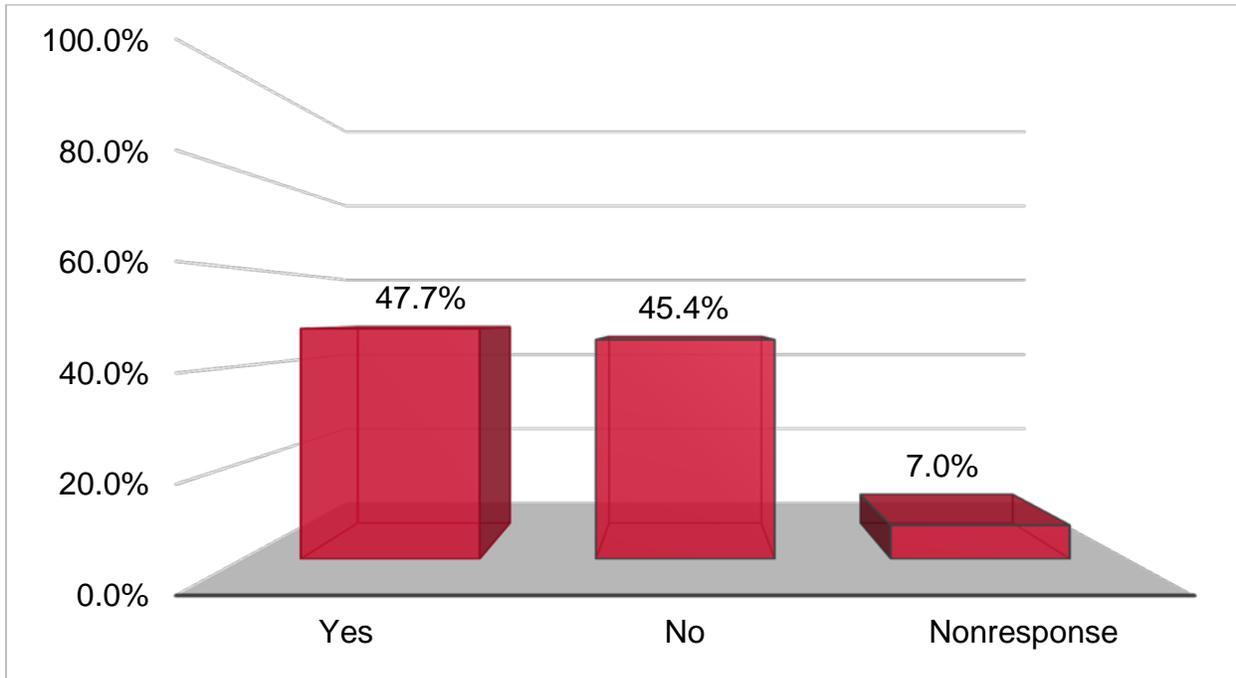


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than three-fourths (77.1%) of the respondents are in favor of an increase of the minimum wage.

Figure 15. “Do you support providing direct financial assistance to homeowners facing foreclosure?”

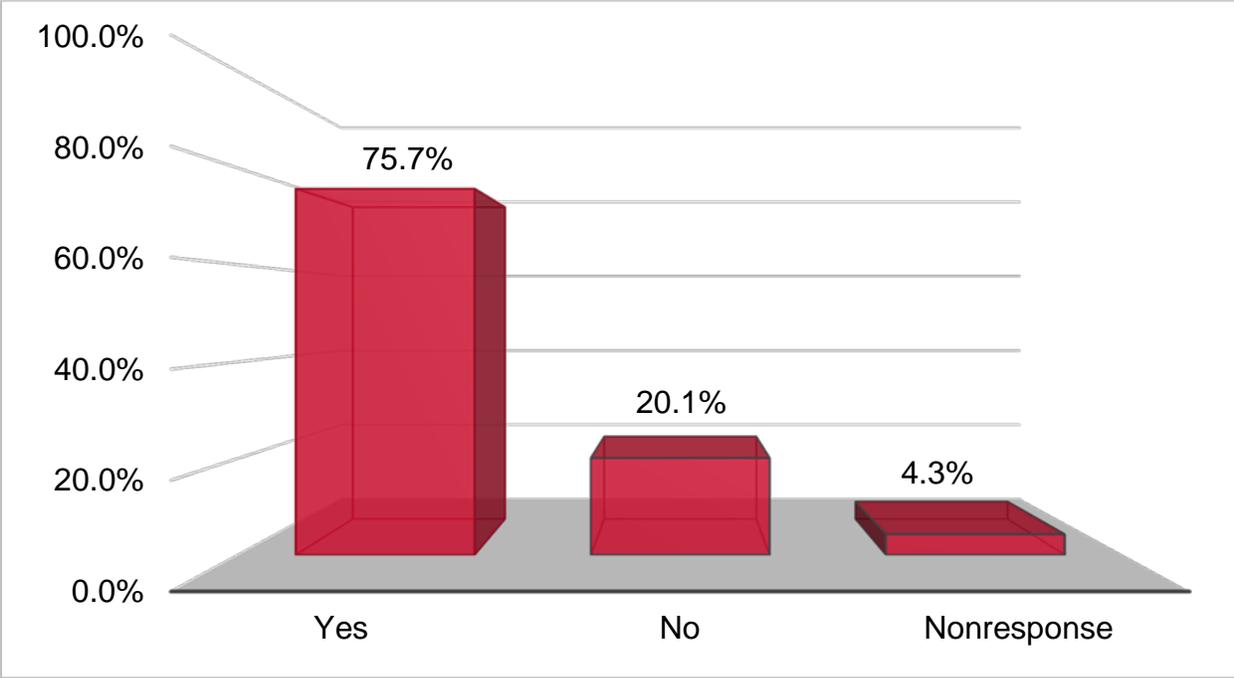


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-fifths (47.7%) of the respondents are in favor of providing direct financial assistance to homeowners who face foreclosure.

Figure 16. “Do you support government funding for the development of renewable energy (e.g. solar, wind, thermal)?”

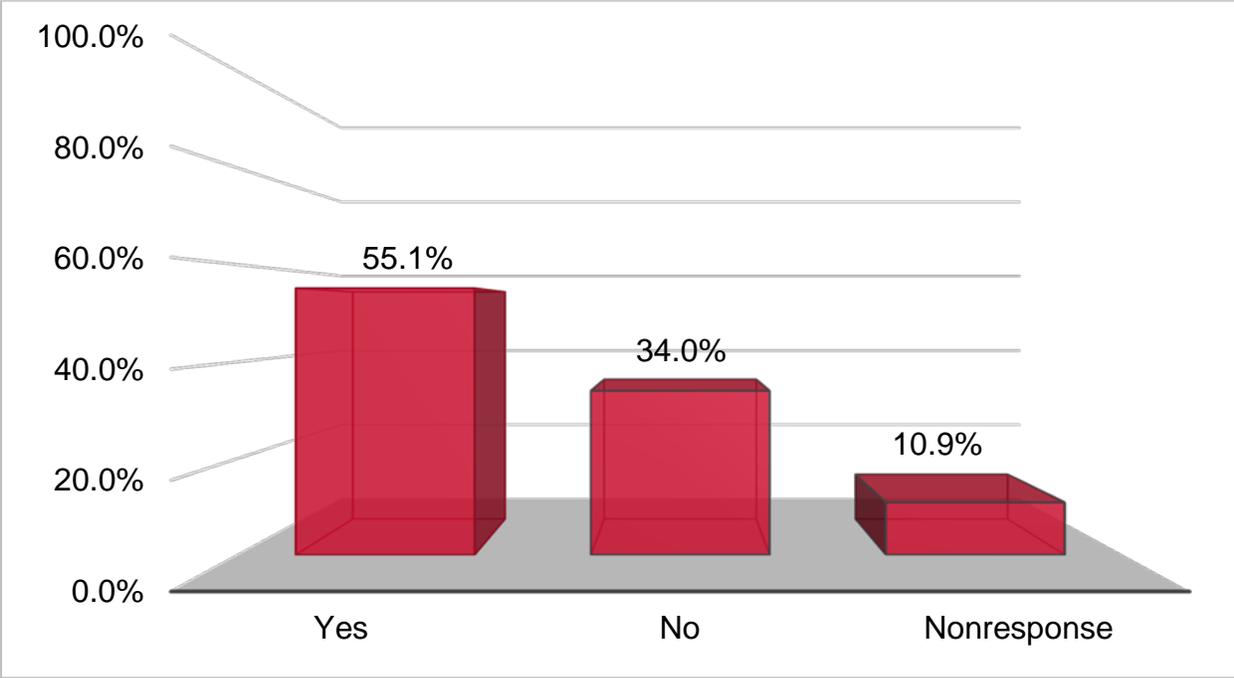


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Slightly more than three-fourths (75.7%) of the respondents are in favor of using government funding to develop renewable energy.

Figure 17. “Do you support the government regulation of greenhouse emissions gas?”



N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than half (55.1%) of the respondents are in favor of the government regulation of greenhouse emissions gas.

Table 5. “Do you agree or disagree with this statement?”

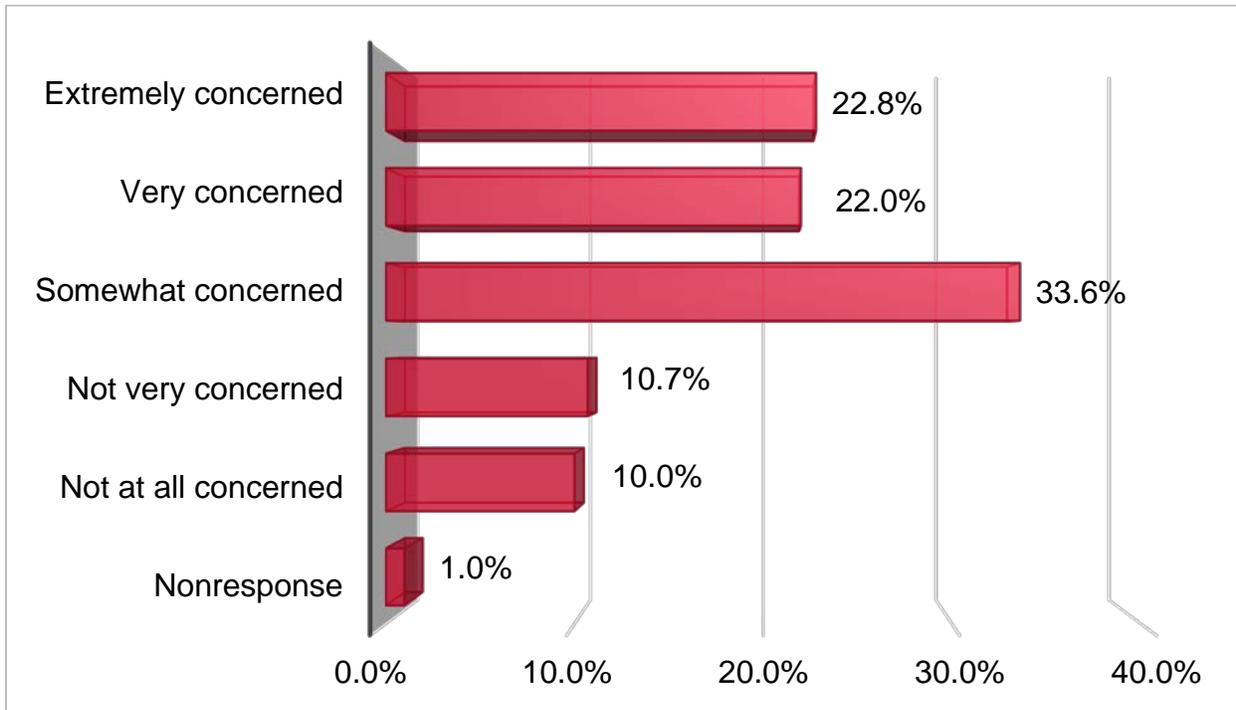
Statement	Agree	Disagree	Nonresponse
Global warming poses a threat to future severe flooding in the Houston area	61.8%	32.8%	5.4%
New construction in flood prone areas will result in more severe flooding	74.6%	21.6%	3.9%
The state of Texas should spend money from its rainy day fund to assist local communities with recovery after flooding events	83.8%	13.0%	3.2%
It is easy for most parents in my community to find affordable childcare	35.0%	48.2%	16.8%

N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than four-fifths (83.8%) of the respondents agree that the state of Texas should spend money from its rainy day fund to assist local communities with recovery after flooding events, whereas three-fourths (74.6%) of the respondents agree that new construction in flood prone areas will result in more severe flooding. More than three-fifths (61.8%) of the respondents agree that global warming poses a threat to future severe flooding in the Houston area. In addition, 35 percent of the respondents agree that it is easy for most parents in their communities to find affordable childcare.

Figure 18. “Some people believe that much of the money from the \$2.5 billion bond issue for flood control will go to politically connected developers and construction firms instead of directly helping risk reduction projects throughout the county. Do you share this concern? Are you extremely concerned, very concerned, somewhat concerned, not very concerned, or not at all concerned?”

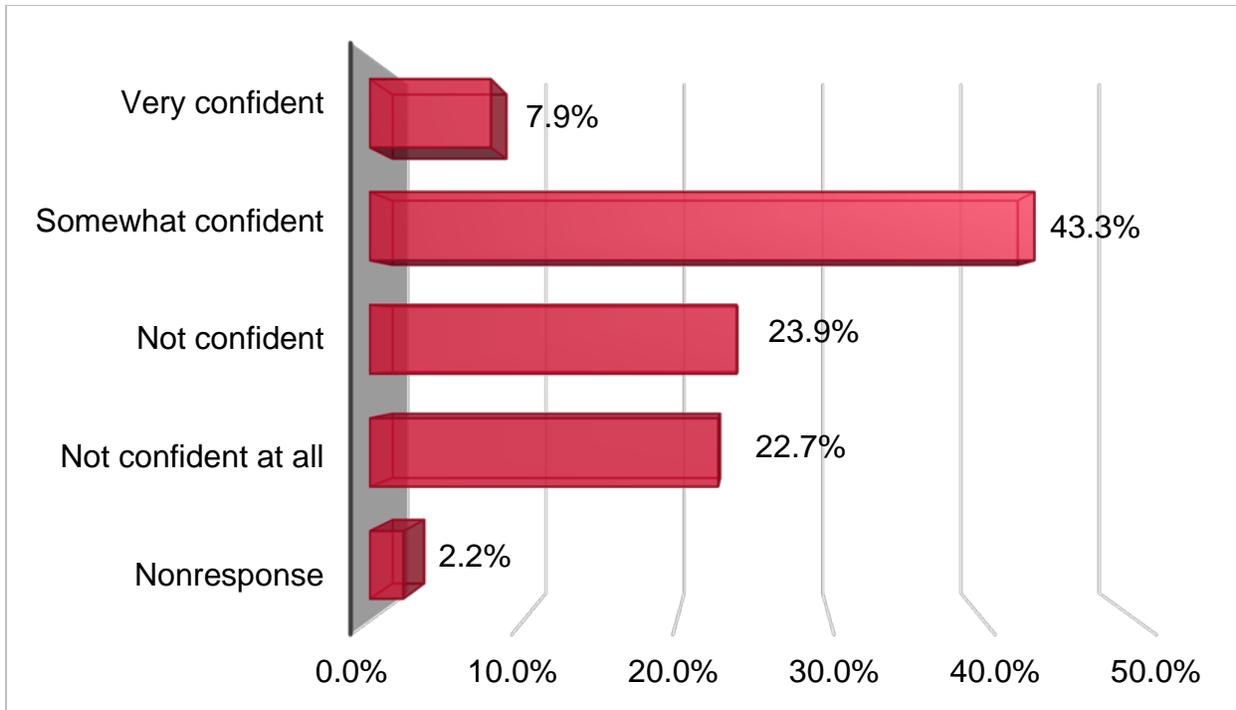


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-fifths (44.8%) of the respondents are either extremely or very concerned about the proper use of \$2.5 billion in bonds while 33.6 percent are somewhat concerned. Only about one-fifth (20.7%) of the respondents do not share this concern.

Figure 19. “How confident are you that your elected county and city representatives know how to reduce/mitigate the negative impact of future flooding in the Houston area? Are you very confident, somewhat confident, not confident, or not confident at all?”

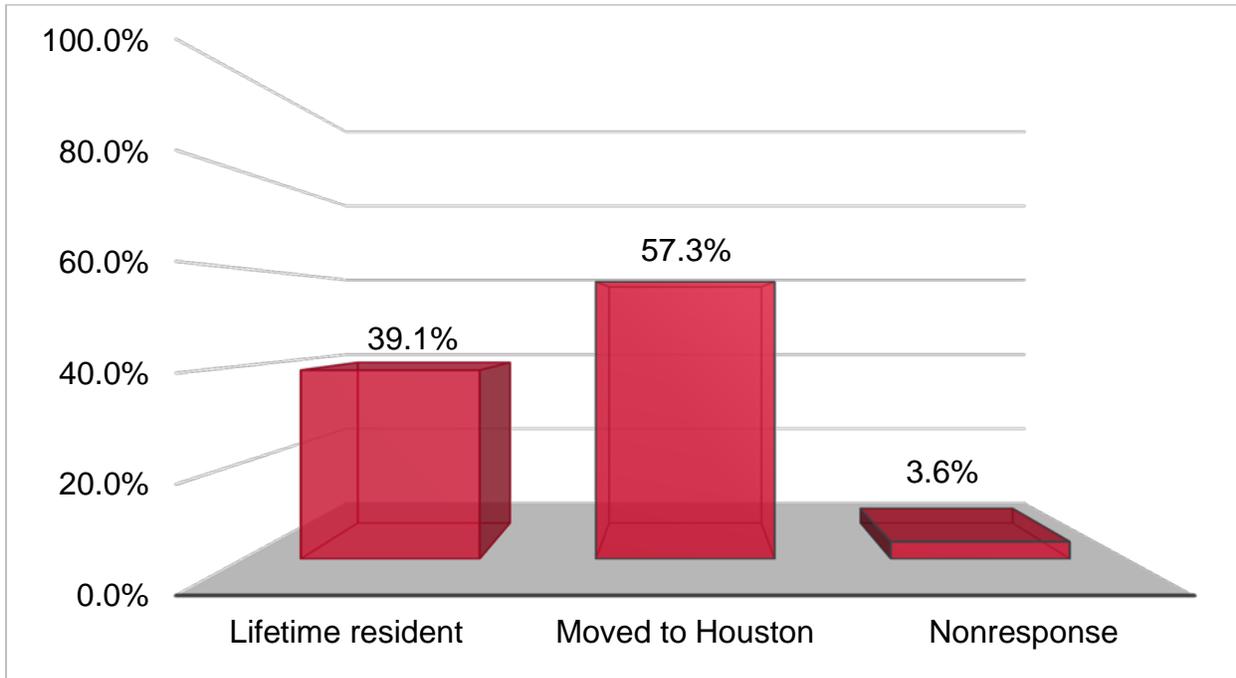


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than half (51.2%) of the respondents are either very confident (7.9%) or somewhat confident (43.3%) in their elected county and city officials in terms of their abilities to reduce the negative impact of future flooding in the Houston area.

Figure 20. “Have you lived in the Houston area all your life, or did you move here from somewhere else?”

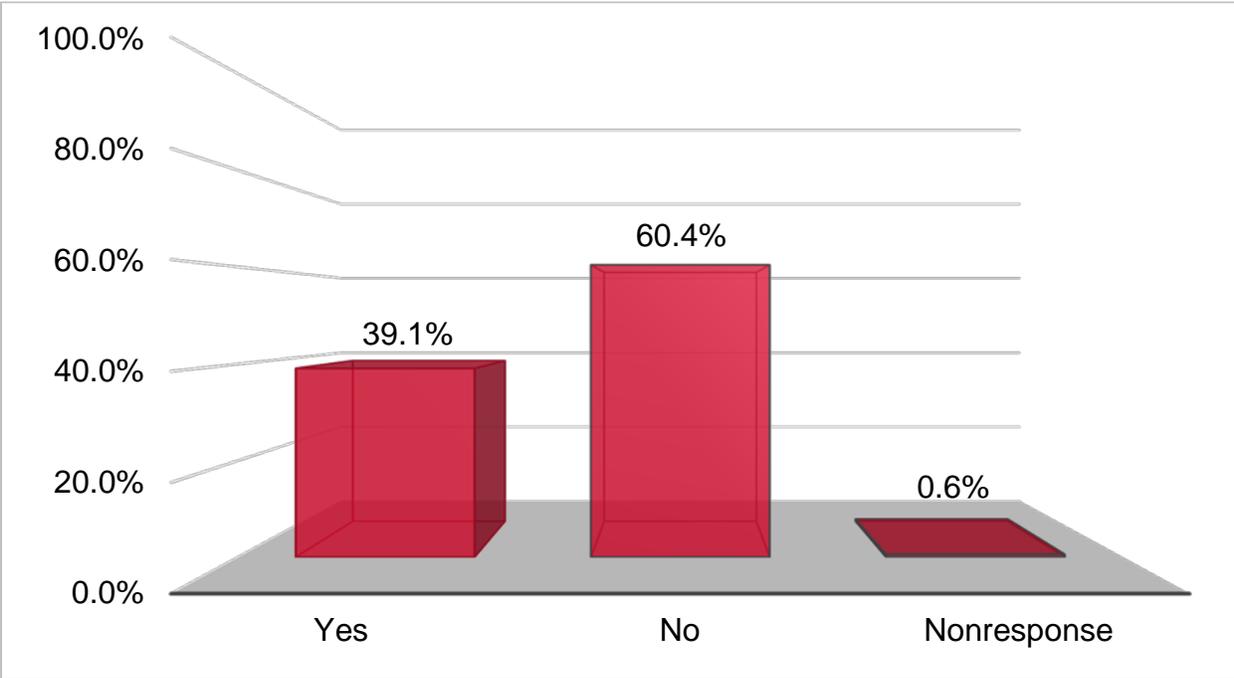


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than one-third (39.1%) of the respondents have lived in the Houston area all their lives, whereas more than half (57.3%) of the respondents moved to the Houston area.

Figure 21. “Do you have children living in your household?”

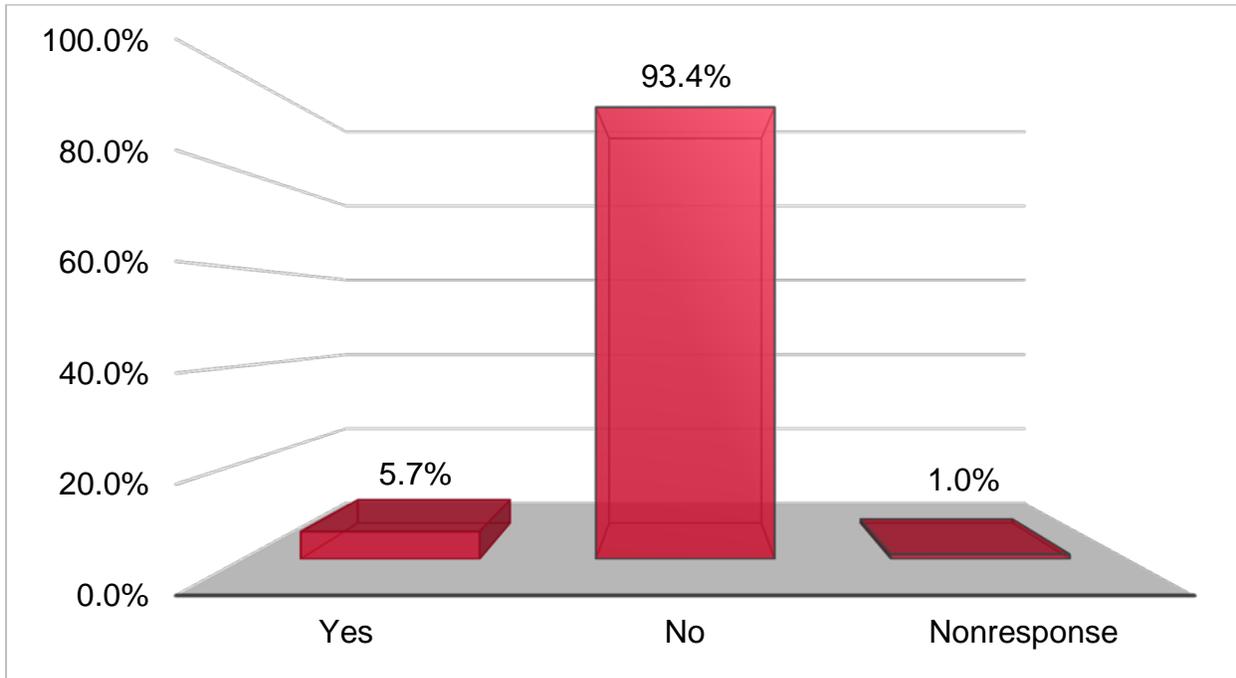


N = 1073

Note: Nonresponse includes “Refused”.

More than one-third (39.1%) of the respondents have children living in their households.

Figure 22. “As a result of Hurricane Harvey, have you moved your children to a different school?”



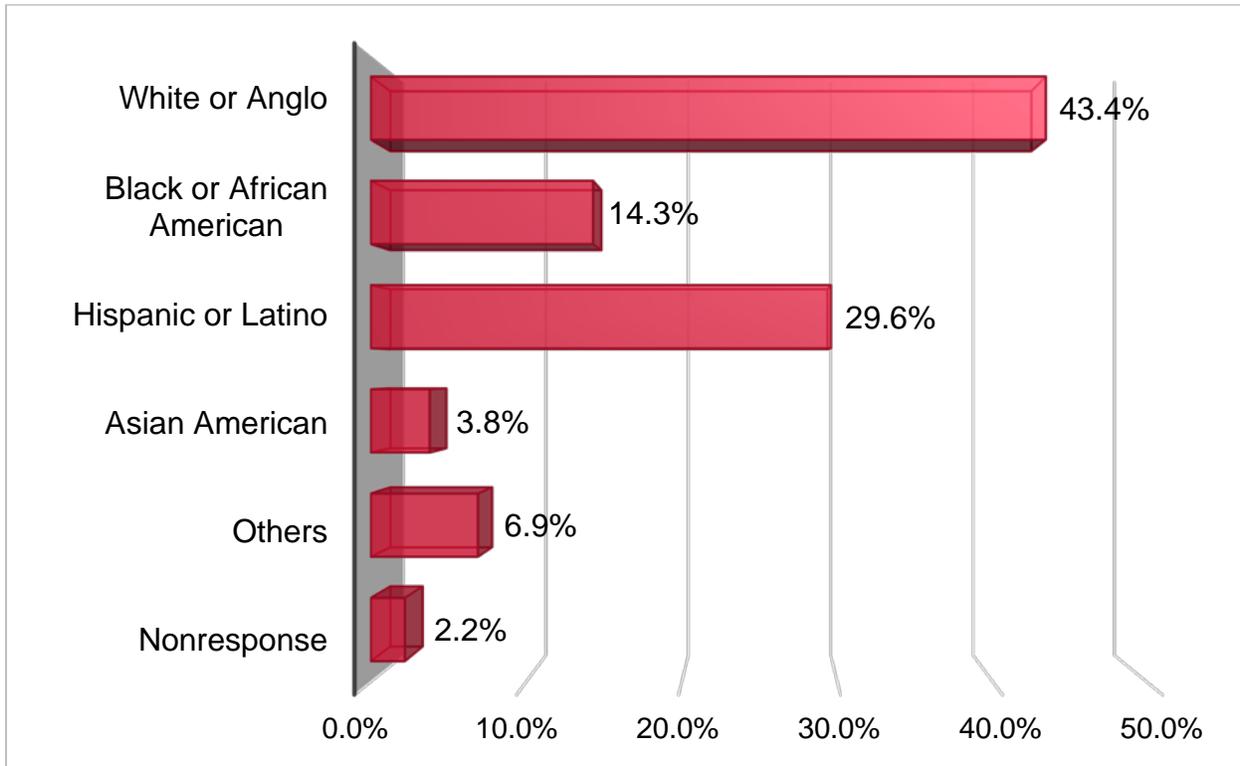
N = 369

Note: 1. Only respondents who have children living in their households were asked this question.

2. Nonresponse includes “Don’t know” and “Refused”.

For those who have children in their households, over 90 percent (93.4%) of the respondents did not move their children to a different school due to Hurricane Harvey. By contrast, only 5.7 percent of the respondents moved their children to a different school as a result of Hurricane Harvey.

Figure 23. “In which one of the following racial or ethnic categories would you place yourself?”



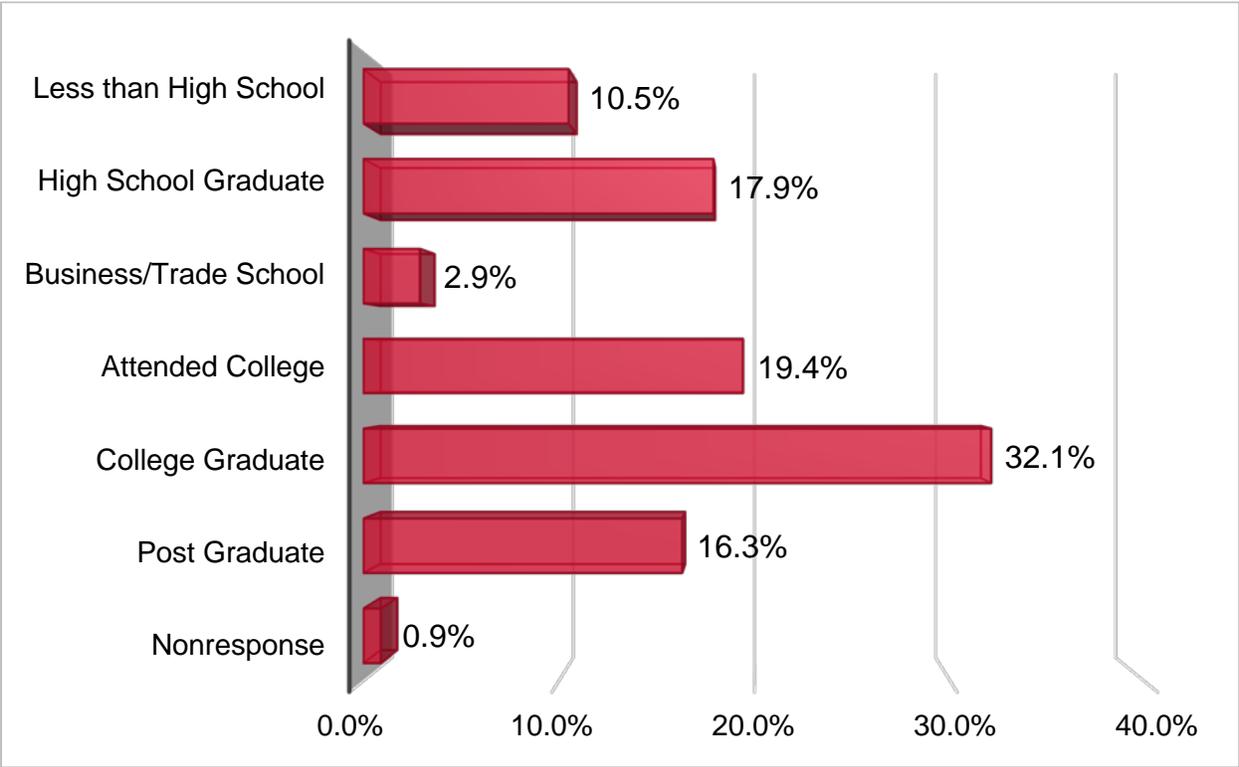
N = 1073

Note: 1. The first category includes respondents from different origins and ethnicities that identify themselves as white.

2. Nonresponse includes “Don’t know” and “Refused”.

More than two-fifths (43.4%) of the respondents are White or Anglo, whereas 29.6 percent of the respondents are Hispanic or Latino. Another 14.3 percent are Black or African American while 3.8 percent of the respondents are Asian American.

Figure 24. “What was the highest grade of formal education you completed?”

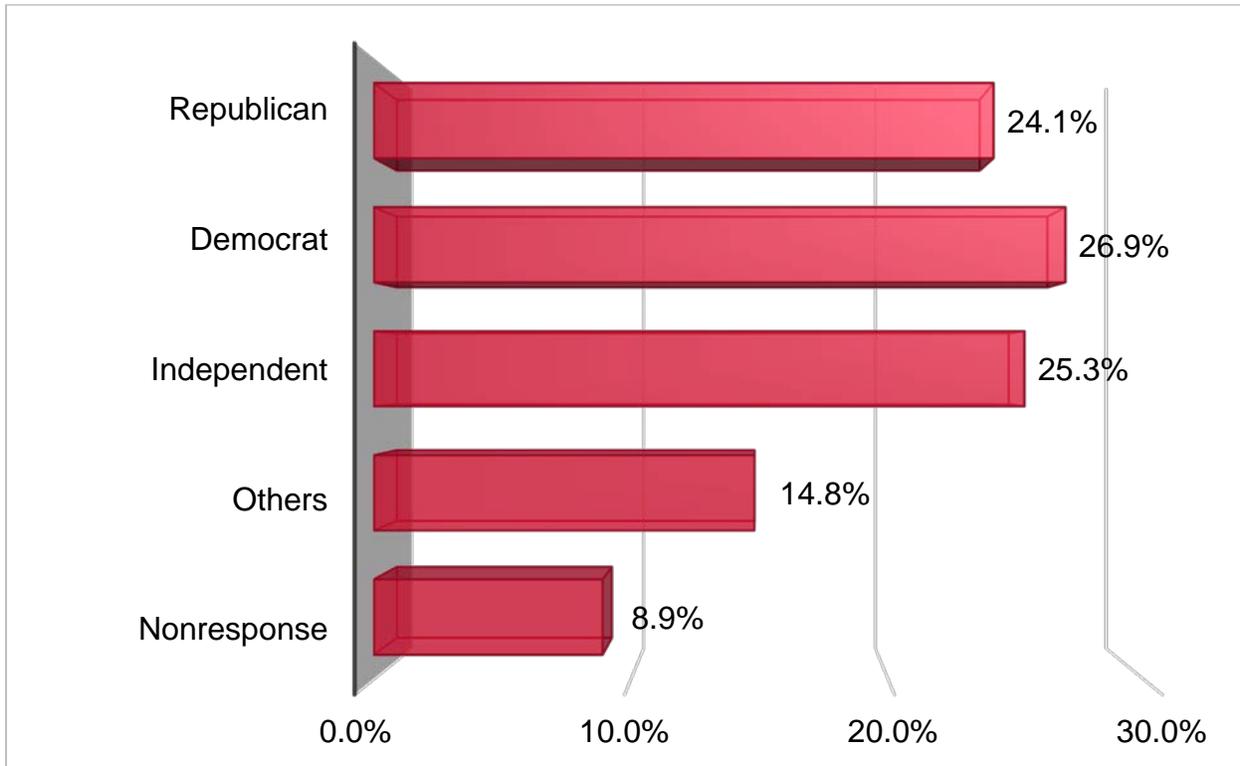


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Close to half (48.4%) of the respondents have either a college degree (32.1%) or a postgraduate degree (16.3%). By contrast, 28.4 percent of the respondents have a high school education or lower.

Figure 25. “Generally speaking, do you think of yourself as a Republican, a Democrat, an Independent, or something else?”

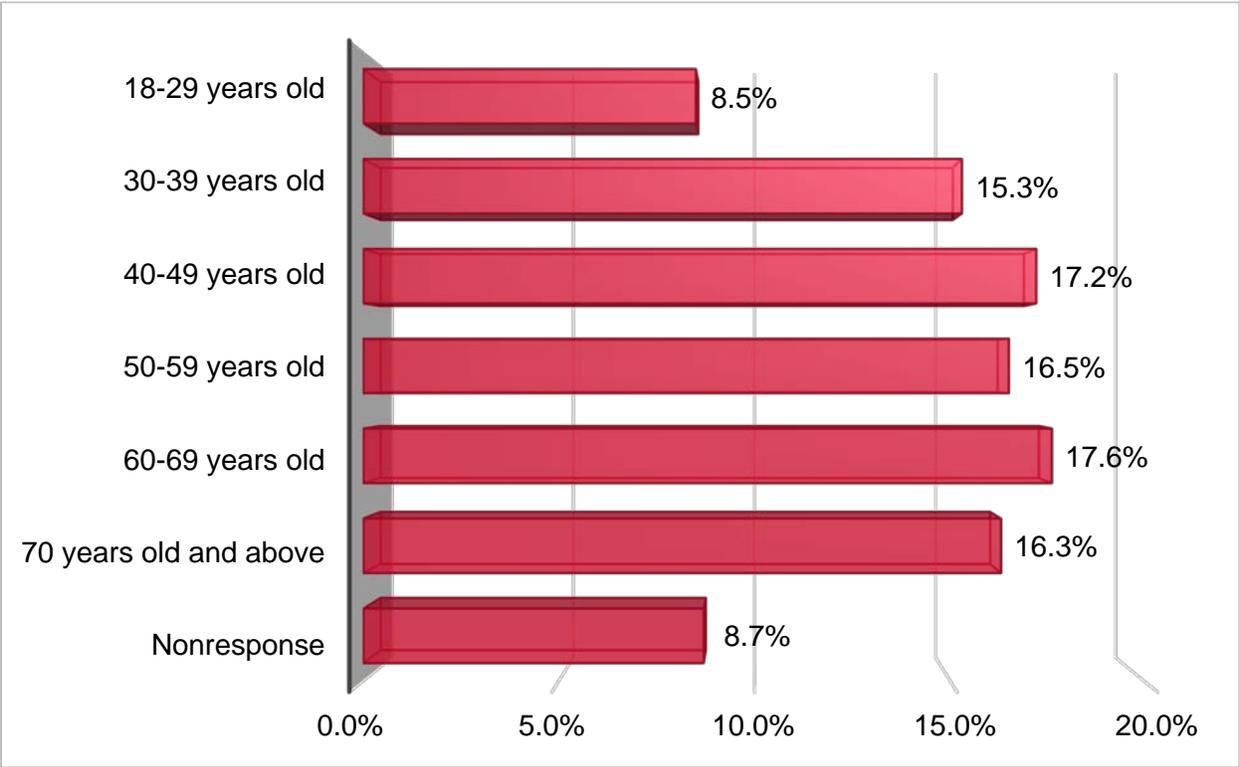


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Slightly less than one-fourth (24.1%) of the respondents are Republicans, whereas more than one-fourth (26.9%) of the respondents are Democrats. In addition, about one-fourth (25.3%) of the respondents identify themselves as Independents.

Figure 26. Age of the Respondents

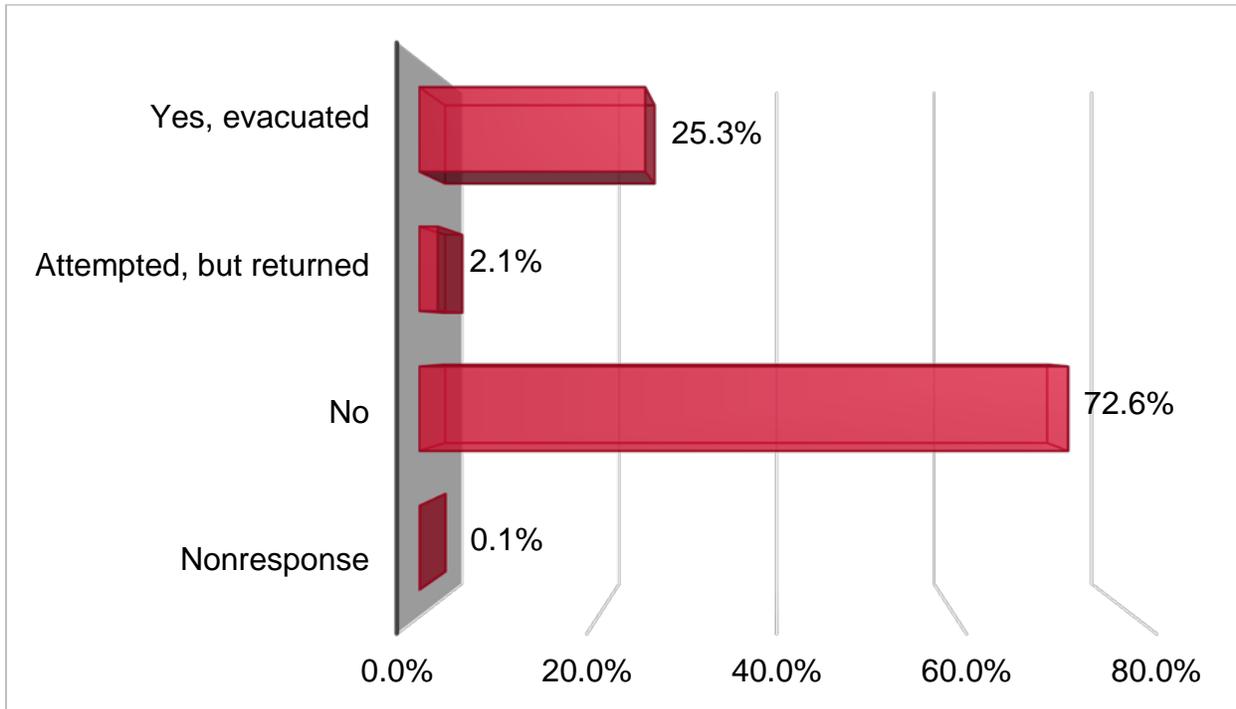


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Slightly more than one-third (33.9%) of the respondents are 60 years old and above, whereas 23.8 percent of the respondents are between the ages of 18 and 39. In addition, about one-third (33.7%) of the respondents are between the ages of 40 and 59.

Figure 27. “Did you evacuate or attempt to evacuate your home to go someplace safer before or after Hurricane Harvey reached the Houston area?”

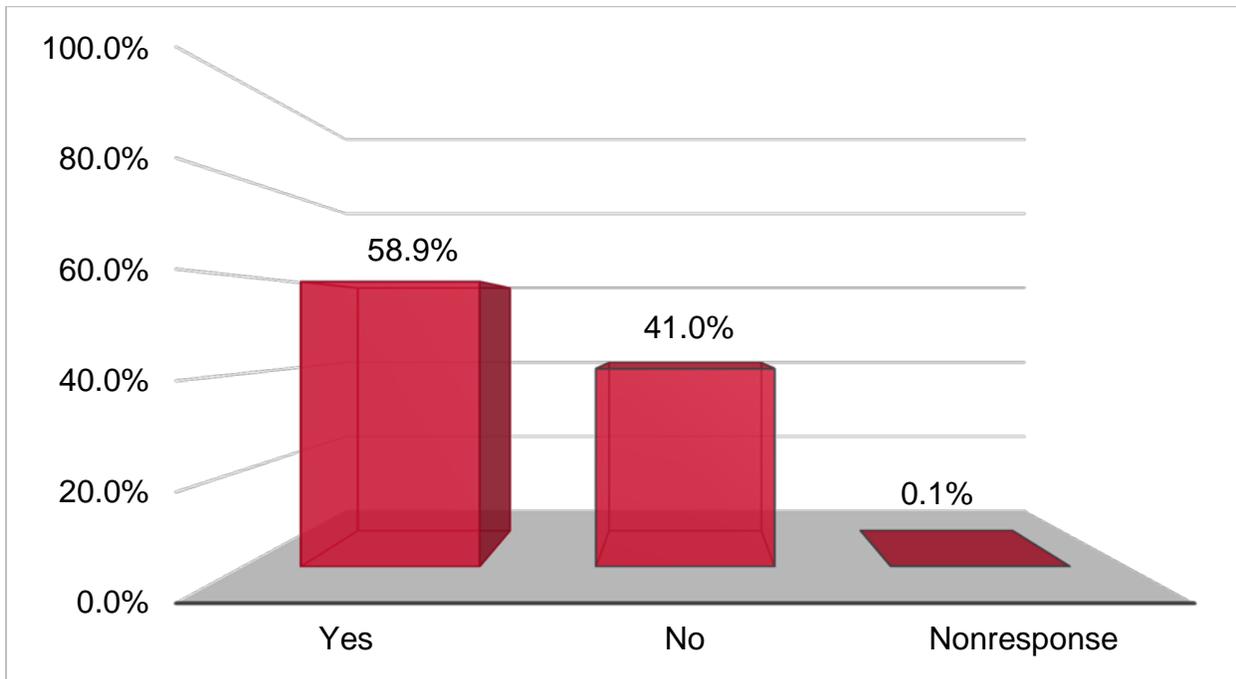


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than 70 percent (72.6%) of the respondents did not evacuate or attempt to evacuate before or after Hurricane Harvey reached the Houston area. However, 25.3 percent of the respondents evacuated while 2.1 percent of the respondents attempted to evacuate but finally returned to their homes.

Figure 28. “In the days immediately before or after Hurricane Harvey, did you provide any help to family members, friends, or other people who you might know through clubs, churches or organizations you belong to?”

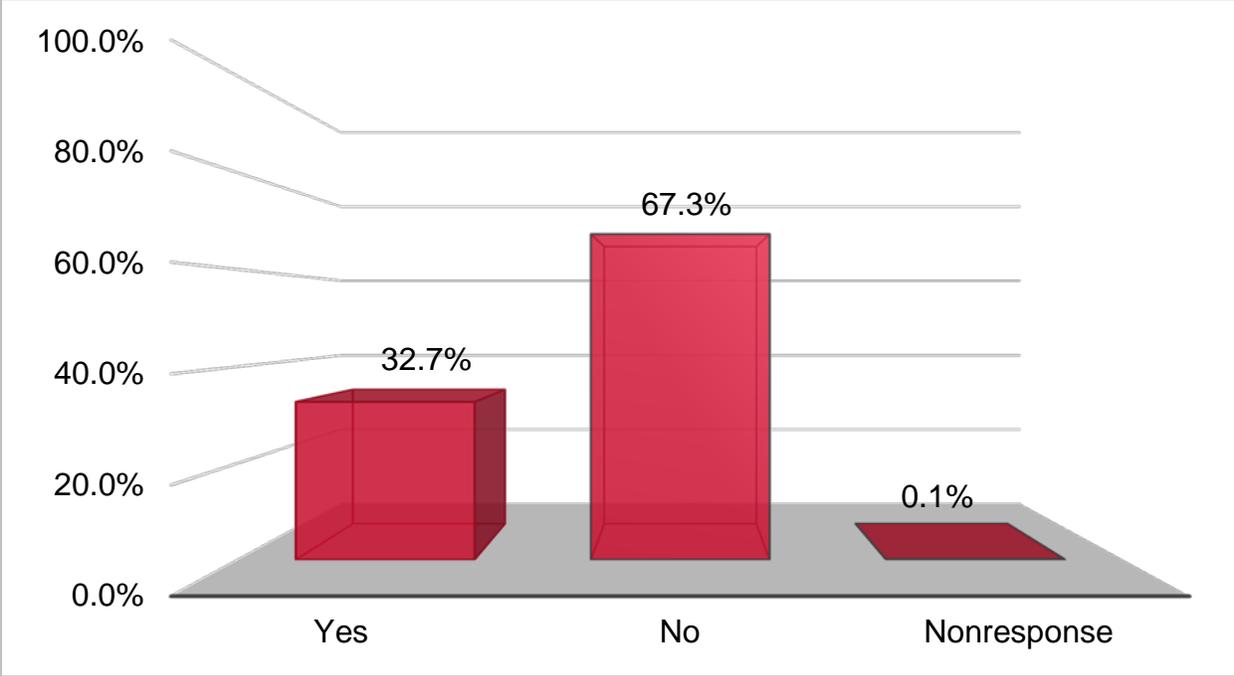


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than half (58.9%) of the respondents provided assistance to family members, friends or other people in the days immediately before or after Hurricane Harvey.

Figure 29. “In the days immediately before or after Hurricane Harvey, did you receive any help from family members, friends or other people who you might know through clubs, churches or organizations you belong to?”

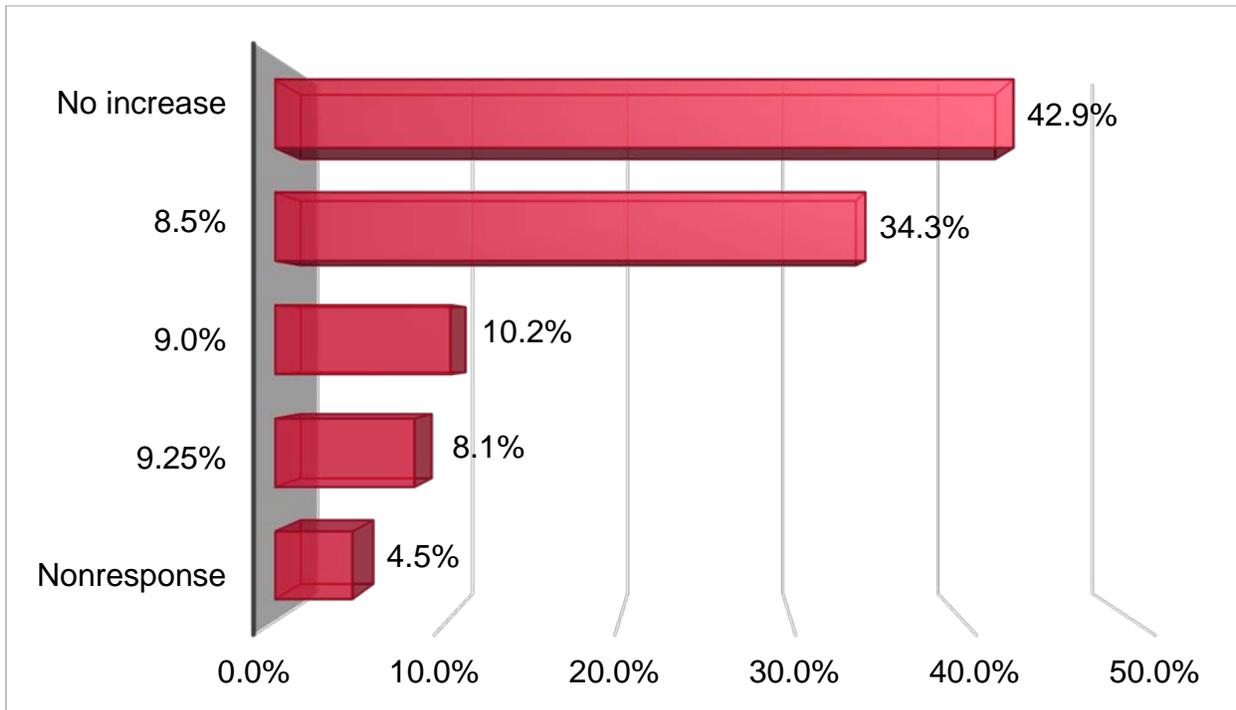


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than three-tenths (32.7%) of the respondents received assistance from family members, friends or other people in the days immediately before or after Hurricane Harvey.

Figure 30. “Residents of the Houston area pay eight and a quarter percent (8.25%) in sales tax on most of their purchases. How much higher a sales tax would you be willing to pay to adopt any of the proposed policies to protect the Houston area from the effects of severe weather? Would you be willing to pay an eight and one half percent sales tax (8.5%), a nine percent sales tax (9.0%), or a nine and one quarter (9.25) sales tax to protect the Houston area from the effects of severe weather or would you not be willing to pay any more in sales taxes?”

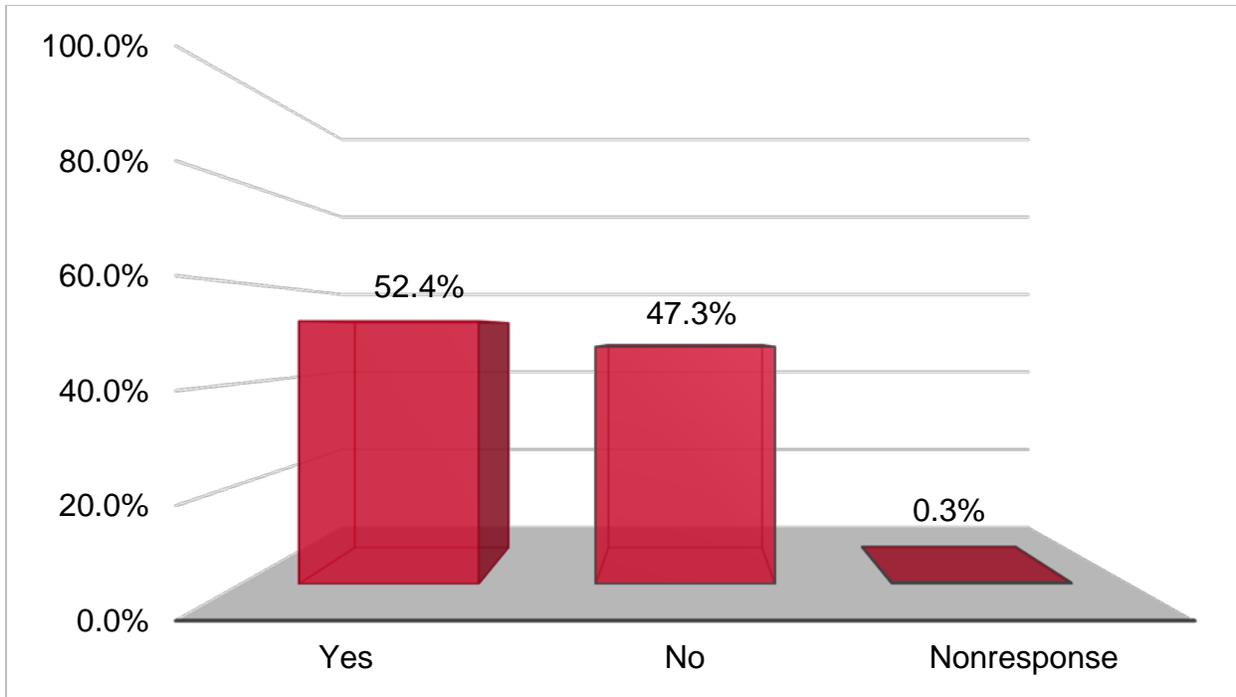


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than 40 percent (42.9%) of the respondents were not willing to pay any more in sales taxes to implement any policy proposal to protect the Houston area from the effects of severe weather. By contrast, 34.3 percent of the respondents were willing to pay an 8.5% sales tax to protect the Houston area from the effects of severe weather, whereas 10.2 percent of respondents were willing to pay a 9.0% sales tax and 8.1 percent were willing to pay a 9.25% sales tax.

Figure 31. “Since 2001, have you or any member of your immediate family ever experienced a personal injury, property damage or had to evacuate from your home in face of severe weather like Tropical Storm Allison, Hurricanes Rita or Ike or recent flooding in 2015 and 2016?”

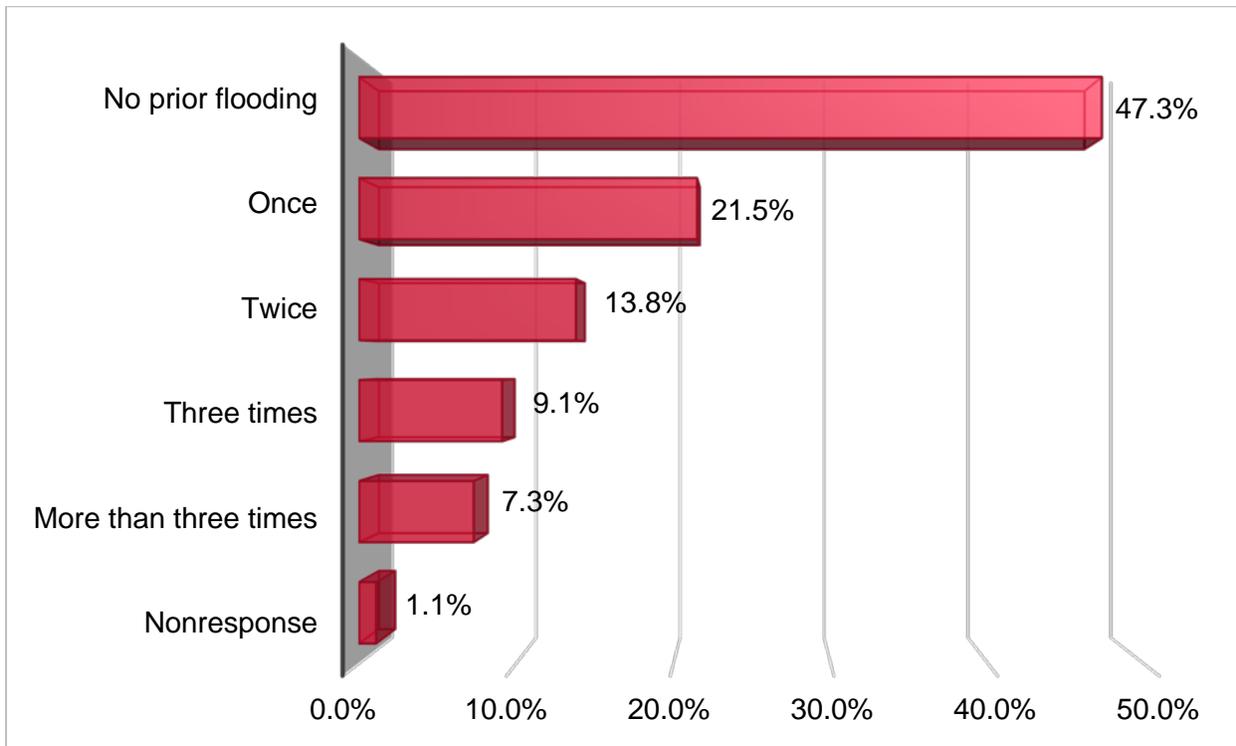


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than half (52.4%) of the respondents or their immediate family members have experienced personal injury, property damage or had to evacuate from their homes due to severe weather since 2001.

Figure 32. “How many times since 2001 have you or any member of your immediate family experienced a personal injury, property damage, or had to evacuate from your home in face of severe weather?”

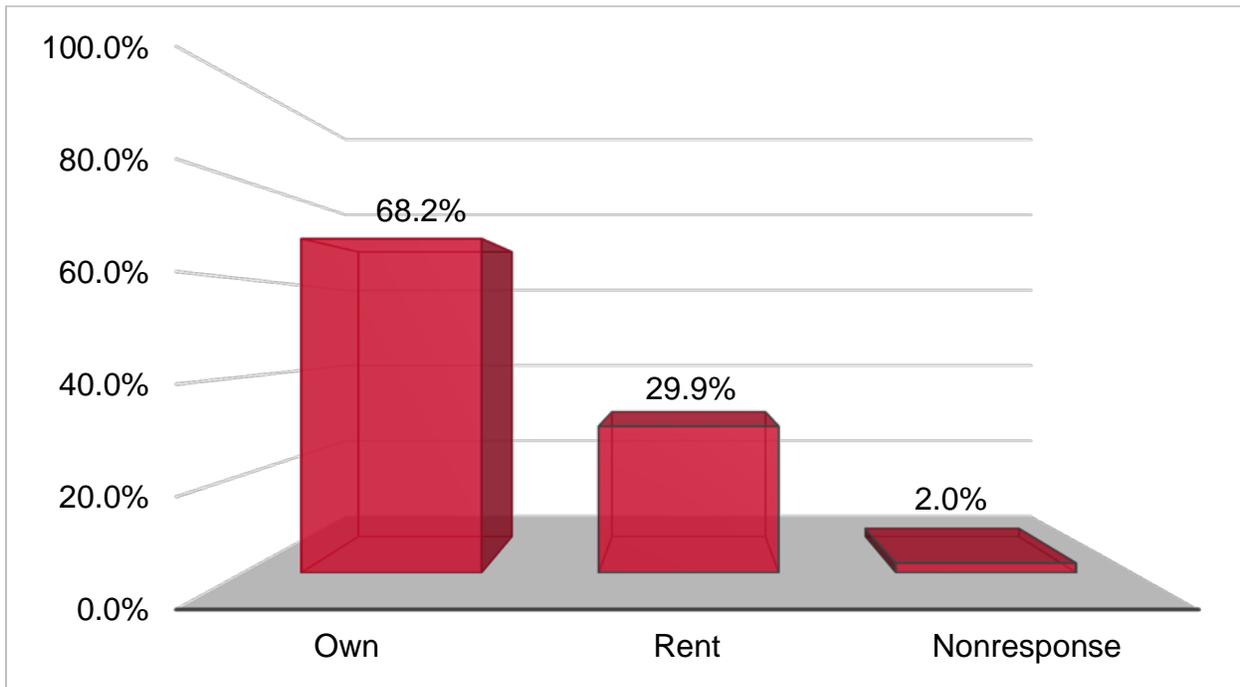


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than one-fifth (21.5%) of the respondents mentioned that they or their immediate family members have experienced a personal injury, property damage or had to evacuate from their homes due to severe weather once since 2001, whereas 13.8 percent have had such experiences twice during this time period. Furthermore, 7.3 percent of the respondents or their immediate family members have experienced a personal injury, property damage or had to evacuate because of severe weather more than three times since 2001.

Figure 33. “Do you own or rent your residence?”

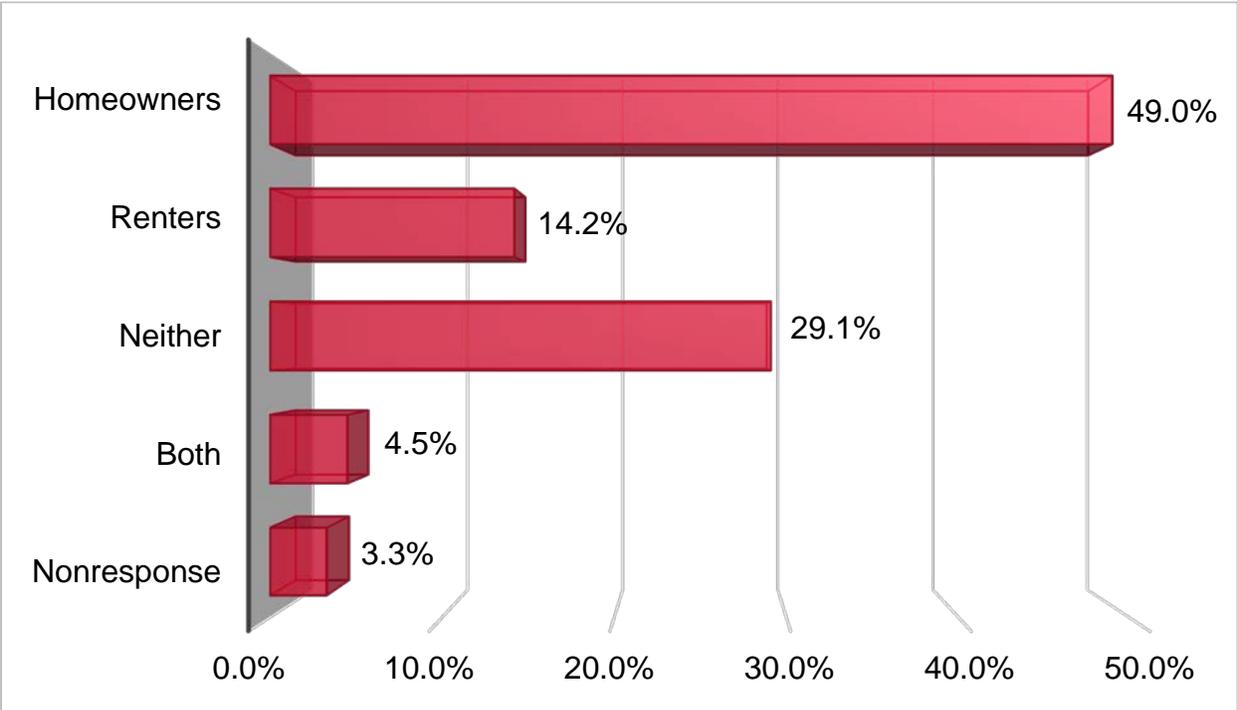


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-thirds (68.2%) of the respondents own their residences, whereas thirty percent (29.9%) of the respondents rent their residences.

Figure 34. “Do you have either homeowner's or renter's insurance?”

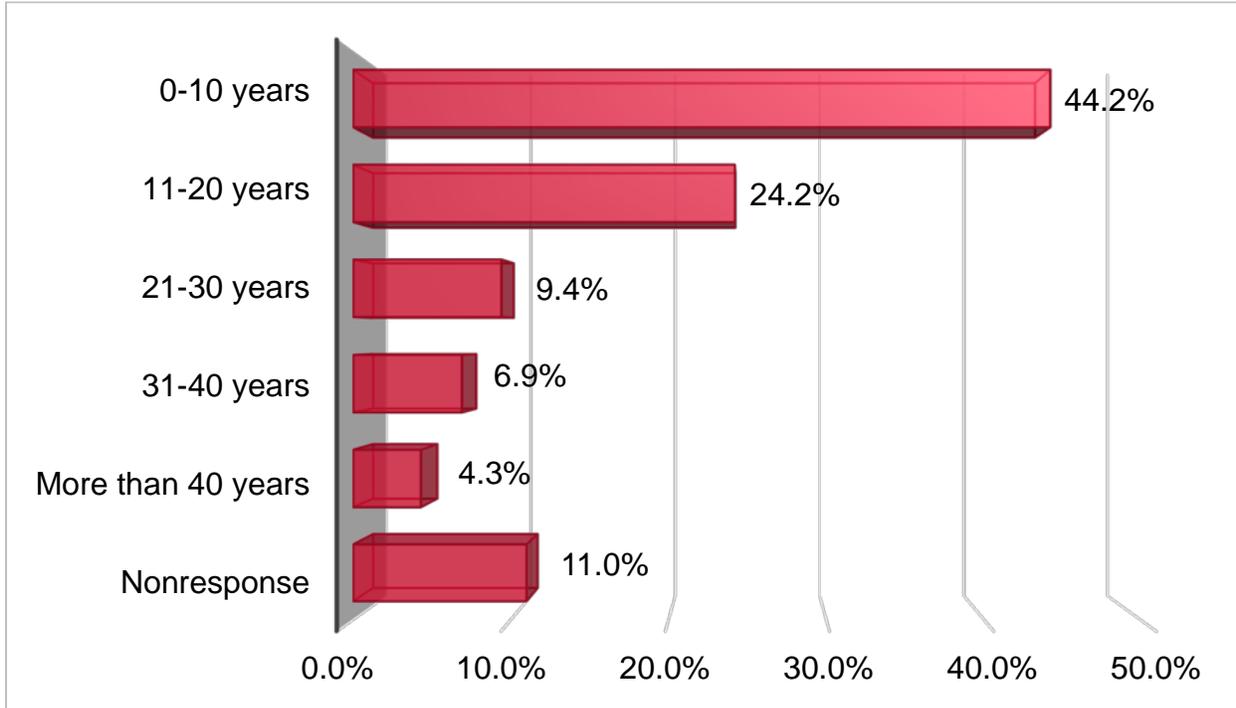


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Nearly half (49%) of the respondents have homeowner’s insurance, whereas 14.2 percent of the respondents have renter’s insurance. By contrast, nearly three-tenths (29.1%) of the respondent have neither homeowner’s nor renter’s insurance. Only 4.5 percent of the respondents have both homeowner's and renter's insurance.

Figure 35. “How long have you lived at your current residence?”

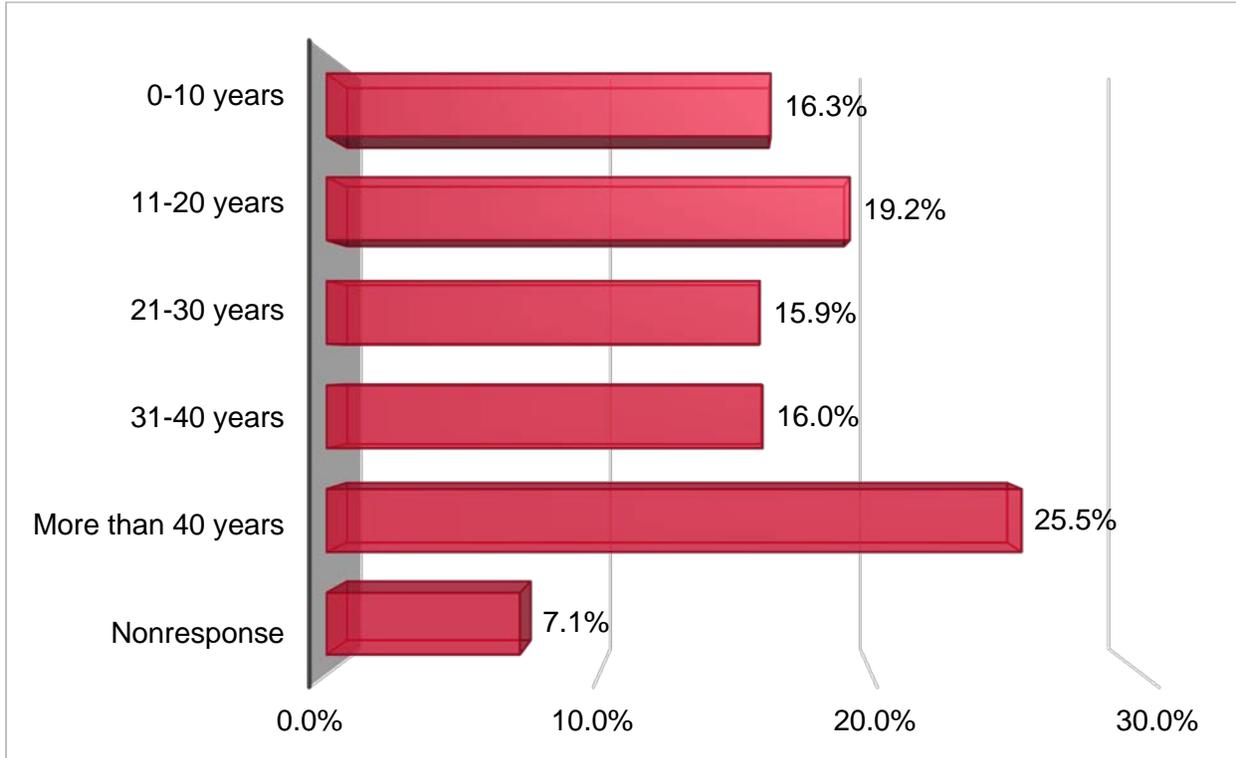


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than two-fifths (44.2%) of the respondents have lived at their current residences no more than ten years, whereas nearly one-fourth (24.2%) of the respondents have lived at their current residences between eleven and twenty years. Furthermore, slightly more than one-fifth (20.6%) of the respondents have lived at their current residences more than twenty years.

Figure 36. “How long have you lived in the Houston metropolitan area?”

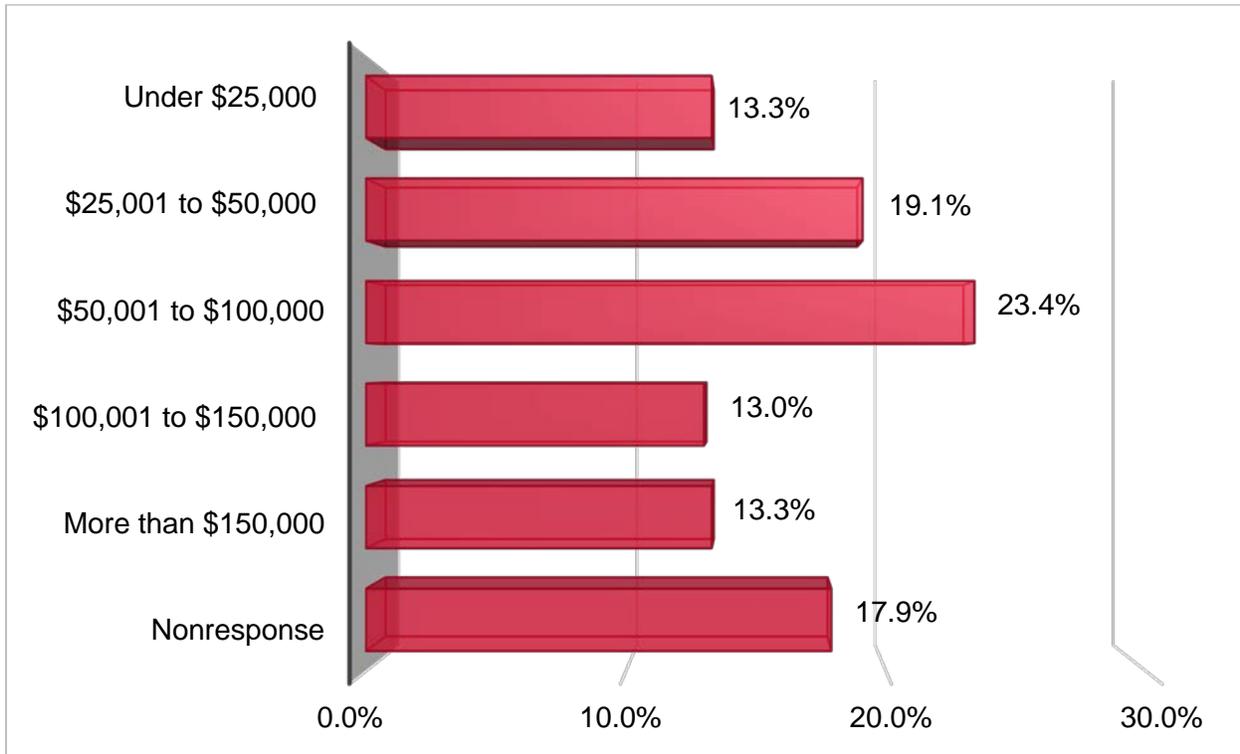


N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

Slightly more than one-fourth (25.5%) of the respondents have lived in the Houston metropolitan area for more than forty years, whereas 16.3 percent of the respondents have lived in the Houston metropolitan area for no more than ten years. Furthermore, 51.1 percent of the respondents have lived in the Houston metropolitan area between eleven and forty years.

Figure 37. “I’ll read some annual family income categories. Could you please stop me when I reach the category that corresponds to your family income?”



N = 1073

Note: Nonresponse includes “Don’t know” and “Refused”.

More than one-fourth (26.3%) of the respondents reported that their household income is more than \$100,000, whereas slightly less than one-third (32.4%) of the respondents have a household income under \$50,000. In addition, more than one-fifth (23.4%) of the respondents have a household income between \$50,001 and \$100,000.