BLUESKY

A Survey of North Carolina Residents about the Safe Room and Fortified Home Concept

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INTRODUCTION

In the months of November and December 2000, the Survey Research Laboratory of East Carolina University worked on behalf of the Bluesky Foundation to evaluate the public's opinion on two new building concepts, the safe room and the fortified house. A safe room is a room designed to withstand sustained wind speeds consistent with the strongest hurricanes and tornadoes. A fortified house is a house structurally built to withstand F2 and Category 3 tornadoes and hurricanes. A questionnaire was designed to assess the weather conditions that concern people the most, and the special precautions they take to prepare for such events. The purpose of this research strategy was to scientifically assess the public's interest and need for these two new building concepts.

We interviewed North Carolina residents from three areas of the state (west, central, and east). A random sample of 4,462 North Carolina residents was generated and out of this sample, residents were randomly selected by Computer Assisted Telephone Interviews (the CATI system) to be interviewed. A final sample of 701 completed interviews was produced, as requested by the Bluesky Foundation.

The CATI system was used to assist in collecting the data from the interviews. The CATI system allows some information, such as the location of residence, and contact numbers of those interviewed to be automatically imported into the data. The data that is collected from the interviews is then exported into an SPSS data file, where it can then be analyzed.

MAJOR FINDINGS

Hurricanes and tornadoes were the most commonly cited concerns of the respondents (40.1% and 32.8%, respectively).

Most (83.9%) of the respondents said they have not done anything structurally to their homes to prepare for major storms.

Over half (53.5%) said they were interested in the safe room concept, and 56.2% were interested in fortifying their entire home. However, most of the respondents were not interested in retrofitting their existing homes with either a safe room or a fortified home (79.9% and 80.3%, respectively).

Over half (43.2%) of the respondents said that falling debris on their home was of most concern.

A majority (67.5%) said that if they were planning to buy a new home, they would lean towards buying a home with a safe room, all things being equal, and 67.8% of the respondents said they would lean towards buying a home that was fortified.

Almost a third (32.1%) of the respondents thought that it would cost more than $50,000 to build a fortified home.

Most (78.9%) said that it was important or very important to them that their insurance premiums could be reduced to offset the extra cost of investing in either a safe room or a fortified home.

Over half (57.2%) said they had never heard of a safe room or fortified home before being interviewed in this survey.

RESULTS

The interview began by asking the participants the types of bad weather conditions that worried them the most (Table1). 5.1% of the sample reported that wildfires worry the most, while 12.1% said that flooding was a major concern. Hurricanes were a major concern of North Carolina residents, accounting for 40.1% of the sample. Tornadoes worried 32.8% of the sample, while ice storms were a troubling weather condition for 21% of the participants. Another bothersome weather condition, severe thunderstorms accounted for 14.7% of the sample. Snow storms were a concern of 12.3% of those interviewed. 1.7% of the sample mentioned other weather condition, while 4.4% said that they didn't know. Other weather conditions that were mentioned but not listed included cold weather, cyclones, earthquakes, extreme heat, fires, freezing rain, hail, high winds, ice, sleet, lightning, rain, and typhoons (Table 2).

The next question assessed why these certain types of weather conditions concerned North Carolinians (Table 3). Responses given included bad driving conditions, damages to property, past experiences, area of where the participant lives, frequency of such conditions, unpredictability of such conditions, fear, loss of electricity, no protection, and the deadly force that some of these weather conditions can bring.

Next, respondents were asked to describe the scenario when tropical weather (depressions, storms, or hurricanes) became a concern for them (Table 4). Responses to this question included the time of year, flooding, damage to property and belongings, high winds, rain, people's safety during these events, trees falling, weather forecasts, proximity of such conditions, and the loss of electricity.

Table 5 involves whether the respondents live east or west of I-95. Five hundred and sixty-six respondents were not asked this question. However, of those asked (135 respondents) 35.6% stated that they lived east of I-95. Those who lived west of I-95 accounted for 48.9% of the 135 asked. 15.6% of the respondents indicated that they were unsure of whether they lived east or west of I-95.

North Carolina residents were then asked to state what they perceived as their greatest threat from tropical weather (Table 6). The responses given included beach erosion, damage to land, debris, death, damage to property, high winds, flooding, tornadoes, falling trees, loss of electricity, losing your home, and pollution.

Respondents were then asked if they took any special precautions in the event of extremely high winds (Table 7). Forty-six percent of North Carolinians said that they did take special precautions in the event of extremely high winds, while 52.8% said that they didn't. Of those who said yes, they were asked to reveal what these special precautions were (Table 8). Responses given included boarding up windows, tying down loose objects, retreating to the basement, buying extra supplies such as food and batteries, going to a shelter, bringing animals in, going to a room with no windows, leaving the area, and bringing outdoor furniture inside of the house.

Respondents were than asked in the comparison to the rest of the country, how likely they were to experience tropical weather, such as hurricanes (Table 9). This question was placed on a

scale, with 1 being much less likely and 6 being much more likely. The responses to this question were mostly evenly distributed. Respondents who answered much less likely represented 19.5% of the sample, while those saying much more likely accounted for 16.1%. Those who responded to the middle of the scale represented 14.4% of the sample. The same question was asked again of North Carolinians, but this time in reference to tornadoes (Table 10). Those who stated much less likely made up 24.8% of the respondents, while 5.8% stated much more likely.

The next question assesses the respondent's perception of how severe hurricanes are where they live in comparison to the hurricanes that occur in other parts of the country (Table 11). Almost half of the respondents (48.8%) stated that the hurricanes where they live are less severe than hurricanes that occur in other parts of the country. Those who stated that hurricanes in their area were more severe than other parts of the country represented 23.3% of the sample, while 22.5% stated that they were the same in comparison.

Respondents were then asked if they had ever done anything to their house structurally, as a preparation for major storms (Table 12). A majority of the respondents (83.9%) said that they had not done anything to their house structurally in preparation of a major storm. Only 15.7% stated that they had done something to their house in preparation for a major storm. Table 13 presents the responses of what exactly those who answered yes have done to their house. The responses included storm shutters, boarding up the house and windows, building with steel, electrical rewiring, building a basement, building home out of brick, hurricane clips, extra tie downs for mobile homes, new roof, and moving trees away from home.

The next question introduces the building concept of the safe room, and whether or not they would be interested in something like this (Table 14). More than half of the respondents (53.5%) stated that they would be interested in the idea of the safe room, while 40.8% said that they would not be interested. The rest of the respondents (5.7%) said that they did not know. Table 15 addresses the respondent's reasons why they would be interested in the safe room. Responses given were that it would good for protection of family and children, wouldn’t have to leave to find shelter, lessen worries concerning storms, and bad weather is common to certain areas. Table 16 addresses the responses given by those who are not interested in the safe room concept. Their responses were that there wasn't enough storms to make it worthwhile, basement was sufficient enough, cost, and some didn't worry about these kind of events to invest in a safe room.

The next question asked respondents what their biggest concern was in regards to falling debris, penetration by airborne missiles, or structural failure of the house (Table 17). Falling debris seemed to be the biggest concern among our respondents (43.2%), followed by structural failure of the house (24.7%). Only 15.8% said that penetration by airborne missiles was their biggest concern. Twelve percent stated that none of these concerned them, while 4.1% said that they did not know.

North Carolinians were then asked if they would be interested in retro-fitting their existing home (Table 18). A majority of the respondents (79.9%) said that they would not be interested in retro-fitting their existing home, while 16% said that they would. Four percent said that they did not know if they would be interested in retro-fitting their home. When asked why they would be interested in a safe room, the responses were generally for safety, because their

current residence was not structurally sound, for children, and to protect their belongings (Table 19). Those who said they were not interested stated reasons such as they already have a safe place to go, cost, don't own the residence they are living in, their age, and they don't want to have to deal with major reconstruction (Table 20).

The next question asked respondents what other purposes a safe room could be used for (Table 21). The responses included an extra bedroom, playroom for children, storage, closet, exercise room, laundry room, a quiet room, and an extra room for the house.

Then respondents were asked where they would like to have the safe room located (Table 22). A majority of the respondents (51.6%) said that they would like to have the room accessible inside of their home, followed by 34.2% saying that they would like the room outside of their house but underground. Only 4.6 % said that they would like to have the room outside of their home, but above ground. The rest of the respondents either stated they wanted the room somewhere other than the three options (3.9%), and they didn't know (5.7%).

The next question asked respondents to estimate what they thought a safe room would cost (Table 23). There was a wide variation in the responses to this question. The range of prices span from $200 dollars to a million. Table 24 has these estimates collapsed into categories. Eleven percent stated an estimate between the price range of $2,000 to $4,999 Dollars to have a safe room. The next highest percentage was 10.8%, and that was for the price range of $10,000 to $14,999 to construct a safe room.

Table 25 shows what respondents would pay extra for a home that has a safe room. This question as well had a wide variation in the responses. Table 26 has these responses collapsed into categories. The highest percentage said that between $2,000 and $4,999 is what they would pay extra for a safe room. Ten percent said that they wouldn't pay anything extra for a safe room. The third highest percentage was the price range of $5,000 to $6,999, and this was at 9.1%.

The next question introduces the idea of a fortified home, and whether respondents would be interested in that building concept (Table 27). Over half (56.2%) said that they would be interested in the idea of a fortified home, while 37.2% said they would not be. Six percent said that they did not know. Then the participants were asked if they would be interested in retro-fitting their existing home (Table 28). A majority of the respondents (80.3%) said that they would not be interested in this idea, and 17% said that they would be interested in retro-fitting their existing home. Almost three percent said that they did not know if they would or not.

Table 29 investigates the reasons why the respondents would be interested in retro-fitting their entire house. The majority stated that again it would be for the protection of their home and family. Table 30 addresses why certain respondents were not interested in the idea of retro-fitting their existing home. These responses included that it would be too costly, their current residence could not be retro-fitted, and they already felt their home was structurally sound as it is.

Now that both building concepts have been introduced, the next question asks respondents whether they would prefer a fortified house or a safe room or both (Table 31). The majority (42.7%) said that they would rather have a safe room over the fortified house, while

34.5% said the reverse. Almost ten percent said that they would like both concepts, as opposed to one or the other. The other 4.9% stated that they were not sure.

Table 32 assesses the differences in why North Carolinians favor one building concept over the other. Most of the respondents felt that the area in which they reside influenced which building concept they would prefer. Those who favored the fortified house felt that one room would make them isolated, and then they wouldn't have to worry about which room they were in. Others simply favored the safe room because it provided more protection for themselves and their belongings.

The next portion of the survey asks respondents to put themselves in the position of someone who is considering the purchase of a newly-built home (Table 33). The question asks respondents if they were considering two homes and one had a safe room and the other didn't, how this would impact their decision in which home to purchase. A majority of the responses (67.5%) said that they would lean towards the home with the safe room, and only 4.3% said that they would lean towards the home without the safe room. Some of the respondents (22.1%) said that it would not influence their decision at all. Of the remaining responses, 4.4% said that they didn't know, and 1.7% selected the option of other. Table 34 addresses the reasons why certain individuals selected the option of other. Their reasons included that it depended on the cost, needed more information in order to make a decision, the location of the home, and it depended on the area of the state.

Since there are many factors that influence a person's decision to buy a home (building material, lot size, and room layout) the next question asked respondents to compare the importance of a safe room to these factors (Table 35). Twenty-four percent said that it was very important, while 42.5% stated that it was somewhat important. Eighteen percent stated that the safe room was not at all important, and 13.4% stated that it was somewhat important. Table 36 assesses the levels of importance regarding a safe room. Again, the respondents felt that the importance of a safe room depended on safety factors, the area, and the cost.

The next several questions ask participants if they would trade off certain features in a home for a safe room. The first of these asks whether they would trade an up-graded kitchen for a safe room (Table 37). Almost 48% said that they would not trade an up-graded kitchen for a safe room, leaving 40.2% who said that they would. Sixty-six percent of respondents said that they would trade a Jacuzzi for a safe room, while the other 30.4% said that they would not (Table 38). Almost sixty percent said that they would trade a small guest bedroom (or extra bedroom) for a safe room, while 35.1% said that they would not (Table 39). As for a garden tub, 71.9% said they would trade it for a safe room, and 23.8% said they would not trade the two (Table 40).

Next, the respondents are again asked to put themselves in the position of someone who is considering the purchase of a newly built home (Table 41). This time they are asked if they were considering two homes, one being fortified and the other not, how this would influence their decision-making. The majority (67.8%) said that they would lean towards the home that was fortified, and only 3.3% said that they would lean towards the home that wasn't fortified. Twenty-three percent said that it would not influence their decision at all.

Again, since there are many factors that influence a person's decision to buy a home (building material, lot size, etc.) the next question asked respondents to compare the importance

of a fortified home to these factors (Table 42). Almost 25% said that a fortified home was very important in comparison to other factors, and 43.2% claimed it to be somewhat important. Thirteen percent classified it as somewhat unimportant, and 16.8% stated that it was not important at all in comparison to other factors. The next question asks participants what gives the fortified home that importance (Table 43). The importance of the fortified home was based on factors such as area, past experiences, protection, and whether they were satisfied with their current residence.

Respondents are then asked to estimate the cost of building a fortified home (Table 44). This question produced great variation in the responses. The responses ranged from $10,000 to $500,000. Table 45 collapses the estimates that the respondents gave into categories. The highest percentage of respondents (42.5%) stated that they did not know how much it would cost to build a fortified home. Ten percent said that it would cost between $100,000 and $149,000 to build a fortified home. The third highest percentage (9.4%) said that it would cost $200,000 or more to build.

The next portion of the survey asks North Carolinians to consider two options, for the same price Option A allows you a fortified home (less protection), while Option B protects a safe room (more protection). The respondents are asked to decide between these two options (Table 46). Almost half (49.1%) said that they would prefer the entire house with less protection, while 40.8% said they would prefer the room with more protection. Six percent stated that they would not prefer either one.

The respondents are then asked to choose whether they would between $8,000-12,000 to fortify a home, or $2,000-6,000 to fortify a room (Table 47). Most of the respondents (41.9%) said that they would choose the safe room, while 39.8% choose the fortified house. Nine percent said that they would not choose either one, and 5.1% said they would purchase both. Again the reasons for their responses mainly focused on issues of cost, and protection (Table 48). Then, the respondents are asked if they would consider both the house and room for $11,000 to $15,000 dollars (Table 49). The majority (57.8%) said that they would consider both, while 34.7% said they would not. The rest of the respondents (7.6%) said that they were unsure.

The next question informs participants that as an outcome of investing in either a safe room or fortified house, their insurance premiums are reduced to offset the increase in mortgage payments. The question asks participants whether this information is important to them (Table 50). Half of the respondents (50.4%) claimed that this was very important, while 28.5% stated that it was somewhat important. Thirteen percent said that it was not important at all, and 7.8% said it was only slightly important to them. Then, the respondents were asked why this was or wasn't important to them (Table 51). The responses ranged from it would cost them less money, to the area in which they live would not benefit them much.

Next, respondents were asked what percentage of resale investment value a fortified home would bring them (Table 52). A majority of the respondents (33.1%) said that they were unsure, while 13.1% said that a fortified home would bring them 100% resale investment value. Other respondents (12.8%) said 25%, while 12.3% said 75%.

When respondents were asked how long they had lived in their current home, there was a wide range of responses (Table 53). The responses ranged from less than a week up to sixty

years. Table 54 collapses the amount of time a person has lived in their home into categories. The highest percentage (17.3%) stated that they had lived in their home for more than twenty years, while 15.4% said that they had lived in their home between 1-2 years. Another fifteen percent said that they had lived in their home between 3-4 years, while 10.7% said that they had lived in their home for less than a year.

The next question asked the participants what kind of material that their house was built with (Table 55). This question had a wide range of responses. Responses included brick, vinyl, cedar, cement, wood, log, stucco, and aluminum. Table 56 collapsed the materials a home is built with into categories. The highest percentage of responses (28%) was that their house was built with wood, while 27.7% stated that their house was built with brick. Another 20.8% said that their house was built with other materials.

The next question asked respondents for their age (Table 57). There is a wide range of ages that participated in this survey. The ages ranged from 18-93 years of age. The most common age was the age of fifty.

Next, participants were asked for their household income (Table 58). Income was collapsed into categories. Twenty percent of the respondents refused to answer this question, while 12.3% said that their income was above $75,000 a year. The next highest percentage (10.8%) said that their income was between $20,001 and $30,000 dollars a year.

The respondents were then asked for their gender (Table 59). Fifty-nine percent of the respondents were female, while 40.7% of the respondents were male.

The next portion of the survey asked respondents for the highest grade that they had completed (Table 60). The majority of the respondents (27.5%) had completed high school, while 21.5% had a four-year college degree. Fifteen percent had some college, and 11.4% had a two-year college degree.

Participants were then asked for the value of their home (Table 61). Respondents having homes valued between $100,001 and $150,000 made up 20.4% of the sample. Almost nineteen percent of the sample did not know the value of their home. Respondents having homes valued at over $300,000 made up 2.7% of the sample, while 4.9% of the sample had homes valued below $25,000.

Respondents were then asked how many children under the age of eighteen were living in their home at that time (Table 62). The highest percentage of respondents (58.9%) said that there were no children living in the home, and 19% said there was one child under the age of eighteen living in the home. Almost 15% had two children, and 5% stated that there was three children living in the home at that time.

North Carolinians were then asked how much more they would be willing to pay on their current homeowners insurance for an independent non-profit agency to conduct research on ways to build hazard-resistant housing and reduce insurance loss and premiums (Table 63). Many of the respondents (47.8%) said that they would not pay anything for an independent agency to conduct research, and only 6.3% stated that they would pay $5.00a year for this type of research.

Then participants were asked if they would be willing to pay $ 5.00 more per year (Table 64). Only 355 participants were asked this question, and over half (54.6%) said they would not be willing to pay $5.00 more. Respondents who said they would made up 37.2% of the 355 asked. Eight percent stated that they were unsure.

Respondents were then asked if they had ever heard of a safe room or a fortified home concept before this survey (Table 65). Most of the respondents (57.2%) stated that they had never heard of either concept before this survey. The remaining 42.1% claimed that had heard of a safe room and fortified house prior to this survey.

Table 66 addresses all the counties in North Carolina that were represented in this sample. Table 67 shows that all regions of North Carolina were distributed equally in the sample. Respondents living in the eastern part of the state represented 40.7% of the sample, and 30.7% of the respondents resided in the western part of North Carolina. Those who lived in the central part of the state accounted for 28.7% of the sample.

CROSS-TABULATIONS

In order to examine variation in the responses, crosstab analyses were done with income, the value of the home, location in North Carolina, the number of children the respondent has, and other factors related to the focus of the survey. Each of these factors were crosstabed with other factors that may be of significance to the researcher. In order to identify any differences that may be of interest, all differences that were statistically significant at the .10 level or less are discussed. Many of these differences are small but they are brought to the reader's attention in case they are important.

The total household income of the respondent affected outcomes in several factors. Those who had a total household income of $10,000 or less were the most likely to be interested in the safe room concept (73%), followed by those whose incomes fell in the $20,000 to $30,000 range (69.7%). Those whose incomes were about $75,000 were the least likely to be interested

in this concept , as 51.2% said they were not interested. When asked "would you rather have a safe room inside their home, outside their home, or underground, those who had household incomes of $75,000 or more were the most likely to want to have a safe room inside their home (66.3%); those with incomes between $50,000 and $60,000 were the most likely to want a safe room outside their home (10.3%), and those with incomes of $10,000 or less were the most likely to want a safe room outside their home and underground (56.8%). When introduced with the idea of fortifying their entire home, those with household incomes of $10,000 or less (73.2%) were the most likely to be interested, followed by those with incomes between $20,000 and $30,000. People with incomes of $10,000 or less were also the most likely to be interested in retrofitting their existing home (35.1%). Those whose household incomes were between $10,000 and $20,000 were the most likely to say they would choose both for $11,000 to $15,000 (74.5%), followed by those whose incomes were between $20,000 and $30,000 (67.1%). Those whose incomes were $10,000 or less were the most likely to say that it was important to them that their insurance premiums could be reduced to offset the added mortgage cost of having a safe room or fortified home (81.1%).

The value of the respondent's home also influenced the responses to several of the questions. Those with a home value of between $25,000 and $50,000 were the most likely to be interested in the safe room concept (70.7%), followed by those with a home value of $50,000 to $75,000 (65.3%). Those whose homes were valued $300,000 or above were the most likely to say they would rather have a safe room inside their home (68.4%), those with a home value of $75,000 to $100,000 were the most likely to want a safe room outside their home above ground (9%), and those with a home value of $25,000 to $50,000 were the most likely to want a safe room outside and underground (53.7%). Those whose home value was between $50,000 and $75,000 were the most likely to be interested in having a fortified home (72%). Those with a home value of between $200,000 and $300,000 were the most likely to choose a fortified house over a safe room, those with a home value of between $25,000 and $50,000 were the most likely to choose a safe room (63.4%), and those whose homes valued below $25,000 were the most likely to choose both (14.7%). Those with a home value between $25,000 and $50,000 were the most likely to say that having a fortified home was important to them (41.5%), and those whose homes valued over $300,000 were the least likely to say that this was important to them (5.3%). Those with the lowest home values ($100,000 or less) were the most likely to say they would give up an upgraded kitchen for a safe room, and those whose home values were in the two top highest brackets were the least likely to say they would give up an upgraded kitchen for a safe room.

The region of the state (western, central, or eastern North Carolina) that the respondent lives in also affected the variation in several of the outcomes. Those who live in eastern North Carolina were the most likely to say they take special precautions in the event of extremely high winds (59.3%), and those who live in western NC were the least likely to do so (29.3%). Those who live in eastern NC were also the most likely to say that compared to the rest of the country, we were much more likely to experience tropical weather (32.3%), while those who live in western NC were the most likely to say that we were much less likely. Those who lived in western NC were also the most likely to say that we were much less likely to experience tornadoes (35.8%), followed by those who live in central NC (17.4%). When asked "how severe are hurricanes where you live compared to hurricanes that occur in other parts of the country, those who live in eastern NC (38.2%) were the most likely to say that they were more severe and those who live in western NC (7%) were the least likely to say that they were more severe.

Those who live in eastern NC were the most likely to be interested in the safe room concept (62.8%), while those who live in western NC were the least interested (43.3%). Those who live in eastern NC were also the most likely to be interested in retrofitting their existing home (18.9%), while those in western NC were the least interested in this (10.2%). Those who live in eastern NC were the most likely to be interested in a fortified home (63.2%), while those who live in western NC were the least interested in this (48.4%). Those who live in central NC were the most likely to say that if they were planning to buy a new home, they would lean towards the home with the safe room (71.1%), while those who live in western NC were the least likely to respond this way (59.5%). Those who live in eastern NC were the most likely to say that having a safe room was either very important or important to them (30.2% and 44.9%), while those who live in western NC were the most likely to say that this was not at all important to them (23.7%). Those who live in eastern NC were also the most likely to say that having a fortified home was very important to them (29.8%), while those who live in western NC were the most likely to say that this was not at all important (21.4%).

The responses to the question "compared to other parts of the country, how likely are you to experience tropical weather in this area?" also affected the variation in several of the outcomes. Those who thought that we were much more likely to experience tropical weather in this area were the most likely to be interested in a safe room (62.8%), while those who thought we were much less likely to experience tropical weather were the least likely to be interested in a safe room (41.6%). Those who thought we were much less likely to experience tropical weather were also the most likely to say they would not be interested in retrofitting their existing home (87.6%). When asked about the likelihood of experiencing tornadoes, the results were similar.

Appendix A – Questions

Q: intro
T:
Hello, my name is _____ and I'm calling from the East Carolina University Survey Research Lab. We are calling on behalf of the Blue Sky Foundation in cooperation with state and federal agencies. We would like to get your input on two new building concepts, the safe room and the fortified house. May we begin?

Q: weather
T:
In general, what types of bad weather conditions worry you the most?

1 Earthquakes
2 Wildfires
3 Flooding
4 Hurricanes
5 Tornadoes
6 Ice storms
7 Severe thunderstorms
8 Snow storms
9 Other
10 Dk
11 Finished making selections

Q: othweath
T:
TYPE IN ANY OTHER BAD WEATHER CONDITIONS THE RESPONDENT MENTIONS THAT AREN'T ON THE LIST

Q: whyweath
T:
Why did those type(s) concern you?

Q: winds
T:
Do you take any special precautions in the event of extremely high winds?

1 Yes
2 No
3 Dk

Q: winds1
T:
What are these special precautions that you take?

Q: hurrican
T:
Compared to the rest of the country, how likely are you to experience a hurricane in this area, on a scale of 1 to 6 with 6 being much more likely and 1 being much less likely?

1 Much less likely

2

3

4

5

6 Much more likely

7 Dk

Q: tornados
T:
What about tornadoes? [USE SAME SCALE AND REPEAT IF NECESSARY]

1 Much Less Likely

2

3

4

5

6 Much More Likely

7 Dk

Q:Severe1
T:
How severe are hurricanes where you live compared to hurricanes that occur in other parts of the country?

1 More Severe

2 The Same

3 Less Severe

4 Dk

Q:Prepare
T:
Have you done anything to your house, structurally, as a preparation

for major storms?

1 Yes

2 No

3 Dk

Q:Prepare2
T:
What have you done?

Q:roomcon
T:
Before we go on to the next question, I would like to introduce the idea of a safe room to you. First, a safe room is a room built inside of your home (or outside as a standalone or underground) designed to withstand sustained wind speeds consistent with the strongest hurricanes (C5) and tornadoes (F5) with wind speeds greater than 250 mph. If you were in the market for a new home, would you be interested in something like this?

1 Yes

2 No

3 Dk

Q:roomcon1
T:
Why?

Q: roomcon2
T:
Why not?

Q: debris
T:
The safe room is designed to protect against falling debris (such as trees), penetration by airborne missiles (objects flying more than 150 mph), and structural failure (disintegration of the house). Which of these is the biggest concern for you?

1 Falling debris

2 Penetration by airborne missiles

3 Structural failure

4 Not concerned about any of these

5 Dk

Q:Retrohm
T:
Would you be interested in retrofitting your existing home?

1 Yes

2 No

3 Dk

Q:retrohm1
T:
Why?

Q: retrohm2
T:
Why not?

Q: useroom
T:
If you had a safe room in your home, what other purposes might it serve? (other ways the respondent would use it)

Q: whererm
T:
Would you rather have a safe room

1 Accessible inside of your home

2 Accessible outside of your home, but above ground

3 Accessible outside of your home, but below ground

4 Other

5 Dk/na

Q: rmcost
T:
What do you think a safe room would cost? [TYPE NUMBER ONLY, NO WORDS. IF RESPONDENT DOESN'T KNOW, TYPE -1]

Q: payextra
T:
What would you be willing to pay extra for a home that has a safe room? [TYPE NUMBER ONLY, NO WORDS.
IF RESPONDENT DOESN'T KNOW, TYPE -1]

Q: forthome
T:
Now I would like to introduce another idea. This is the idea of fortifying your entire home against the most likely severe wind events. A fortified house is a house structurally built to withstand F2 and Category 3 tornadoes and hurricanes (130 mph sustained winds). However, while it may help it will not necessarily protect your home against crushing by falling debris (such as trees), penetration by airborne missiles, and structural failure (disingegration of the home) in the most extreme weather conditions. If you were in the market for a new home, would you be interested in something like this?

1 Yes
2 No
3 Dk

Q: retrohom
T:
Would you be interested in retrofitting your existing home?

INTERVIEWER: [RETROFITTING YOUR EXISTING HOME IS TO STRUCTURALLY REMODEL YOUR HOME]

1 Yes

2 No

3 Dk

Q:
Why?

Q:
Why not?

Q: forthous
T:
Would you prefer a "fortified house" (total house is protected to 130 mph sustained wind) as opposed to a "safe room" where a room would offer protection for 250 mph winds?

1 Fortified house

2 Safe room

3 Both

4 Neither

5 Dk

Q: rmorhse1
T:
Why?

Q: influenc
T:
During the next portion of the survey, put yourself in the position of someone who is considering the purchase of a newly-built home. Let's say you were considering two homes and one had a safe room and one didn't. All other factors being equal, how influential would that be in your decision-making?

1 Would lean towards the home with the safe room
2 Would lean towards the home WITHOUT the safe room
3 Would not influence my decision at all
4 Dk
5 Other

Q: influen1
T:
other responses than those listed

Q: importan
T:
There are many factors that influence your decision to buy
a home, like building material, lot size, and room layout.
Compared to other factors, how important is a safe room?

1 Very important
2 Somewhat important
3 Somewhat unimportant
4 Not at all important
5 Dk

Q: import1
T:
What gives it that importance?

Q: tradoff1
T:
If it meant you could have a safe room, would you give up...

An up-graded kitchen?

1 Yes

2 No

3 Dk

Q: tradoff2
T:
A jaccuzzi?

1 Yes

2 No

3 Dk

Q: tradoff3

T:
A small guest bedroom (or extra bedroom)?

1 Yes

2 No

3 Dk

Q: tradoff4
T:
A garden tub?

1 Yes

2 No

3 Dk

Q: inflhome
T:
Again, put yourself in the position of someone who is considering the purchase of a newly built home. Let's say you were considering two homes, one home is fortified while the other is not. All other factors being equal, how influential would that be in your decision making?

1 Would lean towards the home that is fortified

2 Would lean towards the home that is not fortified

3 Would not influence my decision at all

4 Dk

5 Other

Q: impfort
T:
There again are many factors that influence your decision to buy a home, like building material, lot size, and room layout. Compared to other factors, how important is a fortified home to you?

1 Very important

2 Somewhat important

3 Somewhat unimportant

4 Not at all important

5 Dk

Q: waysimp
T:
What gives it that importance?

Q: costfort
T:
Now let's concentrate on price. How much do you think it costs to build a fortified home? [ENTER NUMBER ONLY. IF RESPONDENT DOESN'T KNOW, ENTER -1]

Q: options
T:
Let's say you have two options. Option A would allow you to protect your entire house against a F2 tornado and a Category 3 hurricane (the worst we tend to get here). For the same price, Option B would allow you to protect a safe room against up to an F5 Tornado and a Category 4 or 5 hurricane (worse than we tend to get here). Which would you choose?

1 Protect the entire house (less protection)

2 Protect a room (more protection)

3 Neither

4 Dk

Q: choos
T:
Now, let's say it costs between $8,000 to $12,000 to fortify your house and between $2,000 to $6,000 to fortify a room. Which would you choose?

1 fortified house
2 safe room
3 neither

4 both
5 Dk

Q: choos1
T:
Why?

Q: both
T:
Would you consider both for $11,000 - $15,000?

1 Yes

2 No

3 Dk

Q: insuranc
T:
As an outcome of investing in either a safe room or a fortified house, your insurance premiums are reduced to offset the increase in mortgage payments. Is this important to you?

1 Yes, very important

2 Yes, somewhat important

3 Slightly important

4 Not at all important

Q: insuran1
T:
Why?

Q: resale
T:
What percentage of resale investment value do you think a fortified home would bring?

1 125%
2 100%
3 75%

4 50%
5 25%
6 Other
7 Dk

Q:Length
T:
What is the length of time that you have lived in your current home?

Q: material
T:
What is the material of your home built with?

Q: age
T:
What is your age?

Q: income
T:
What is your household income?

1 below 10,000
2 10,001 to 20,000
3 20,001 t0 30,000
4 30,001 to 40,000
5 40,001 to 50,000
6 50,001 to 60,000
7 60,001 to 75,000
8 above 75,000
9 Uncertain
10 Refused

Q: gender
T:
What is your gender? [IF IT IS OBVIOUS, DON'T ASK]

1 Male

2 Female

Q: EDUC
T:

What is the highest grade of education that you have completed?

1 8th grade or less
2 completed 8th grade but did not complete high school
3 completed high school
4 Two year college degree
5 Some college but no degree
6 Four year college degree
7 Some graduate school but no degree
8 Graduate degree
9 Doctoral degree
10 Dk
11 Refused

Q: value
T:
What is the value of your home? [IF RESPONDENT DOESN'T KNOW, ASK THEM TO GIVE AN ESTIMATE]

1 Below $25,000
2 $25,001 to $50,000
3 $50,001 to $75,000
4 $75,001 to $100,000
5 $100,001 to $150,000
6 $150,001 to $200,000
7 $200,001 to $300,000
8 Over $300,000
9 Dk
10 Refused

Q: children
T:
How many children under the age of 18 are living in your home?

0 0
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8 or more
9 Dk

Q: morepay
T:
How much more would you be willing to pay on your current homeowners insurance for an independent non-profit agency to conduct research on ways to build hazard-resistant housing and reduce insurance loss and premiums? (Research like technical evaluations, demonstrations, and market and economic research such as this study? If asked)
INTERVIEWER: DON'T READ ANSWER CHOICES

1 None
2 Less than $5.00
3 $5.00
4 $5 to $10
5 $10 to $20
6 $20 to $30
7 $30 to $40
8 $40 to $50
9 $50 to $100
10 More than $100
11 Dk

Q: fivemore
T:
Would you be willing to pay $5.00 more per year?

1 Yes
2 No
3 Dk

Q: Heard
T:
Have you ever heard of a safe room or a fortified home concept before this survey?

1 Yes
2 No
3 Dk

Q: month
T:
Thank you very much for taking the time to answer these questions. Have a great day! [INTERVIEWER: TYPE IN MONTH]

1 November
2 December

Q: day
T:
TYPE IN DAY OF MONTH (Example: 26 of Oct.)