

LOUISIANA FORTIFY HOMES PROGRAM

DEPARTMENT OF INSURANCE

ECONOMIC ADVISORY SERVICES

Informational Report
Issued March 7, 2025

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March 7, 2025

The Honorable J. Cameron Henry, Jr.,
President of the Senate
The Honorable Phillip R. DeVillier,
Speaker of the House of Representatives

Dear Senator Henry and Representative DeVillier:

This informational report provides the results of our evaluation of the Louisiana Fortify Homes Program. This report is intended to provide timely information related to an area of interest to the legislature or based on a legislative request. I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the Louisiana Department of Insurance for their assistance during this review.

Respectfully submitted,



Michael J. "Mike" Waguespack, CPA
Legislative Auditor

MJW/ch

LFHP



Louisiana Legislative Auditor

Michael J. "Mike" Waguespack, CPA



Louisiana Fortify Homes Program Department of Insurance

March 2025

Audit Control # 42240005

Introduction

This report provides the results of our evaluation of the economic impact of the Louisiana Fortify Homes Program (LFHP), which provides grants of up to \$10,000 to individual homeowners to incentivize roofing retrofits that meet the FORTIFIED Roof standard to enable homes to better withstand hurricanes and other windstorms. LFHP is part of the state's efforts to make property insurance more affordable. While these retrofits cost more up front, homeowners can benefit from lower out-of-pocket losses, less disruption in their personal lives in the event of a hurricane or severe windstorm, and additional property insurance discounts.

FORTIFIED Roof is a voluntary certification developed by the Insurance Institute for Business and Home Safety that demonstrates that a home has been inspected and complies with above-code construction standards that improve the wind resistance of the roof.

FORTIFIED Roofs are distinguished by their use of more secure nails, closer spacing of nails, and the installation of a secondary water barrier, among other hardening techniques.

Among the eight southeastern, coastal states,¹ Louisiana has the least affordable homeowner's insurance as of 2023. Specifically, Louisiana homeowners spend the highest percentage of their household income on homeowners and flood insurance.² The median Louisiana household spent 2.1% of its income on homeowners and flood insurance in 2023, compared to 1.6% among other hurricane-exposed states. While Louisiana is the second-most vulnerable state in the United States to natural disasters, driven primarily by hurricane risk,³ the low affordability of insurance in Louisiana is not merely a coincidence caused by Louisiana's high concentration of residents in hurricane-exposed areas. The hurricane-exposed parts of Louisiana rank last for insurance affordability when compared to hurricane-exposed portions of other coastal states,

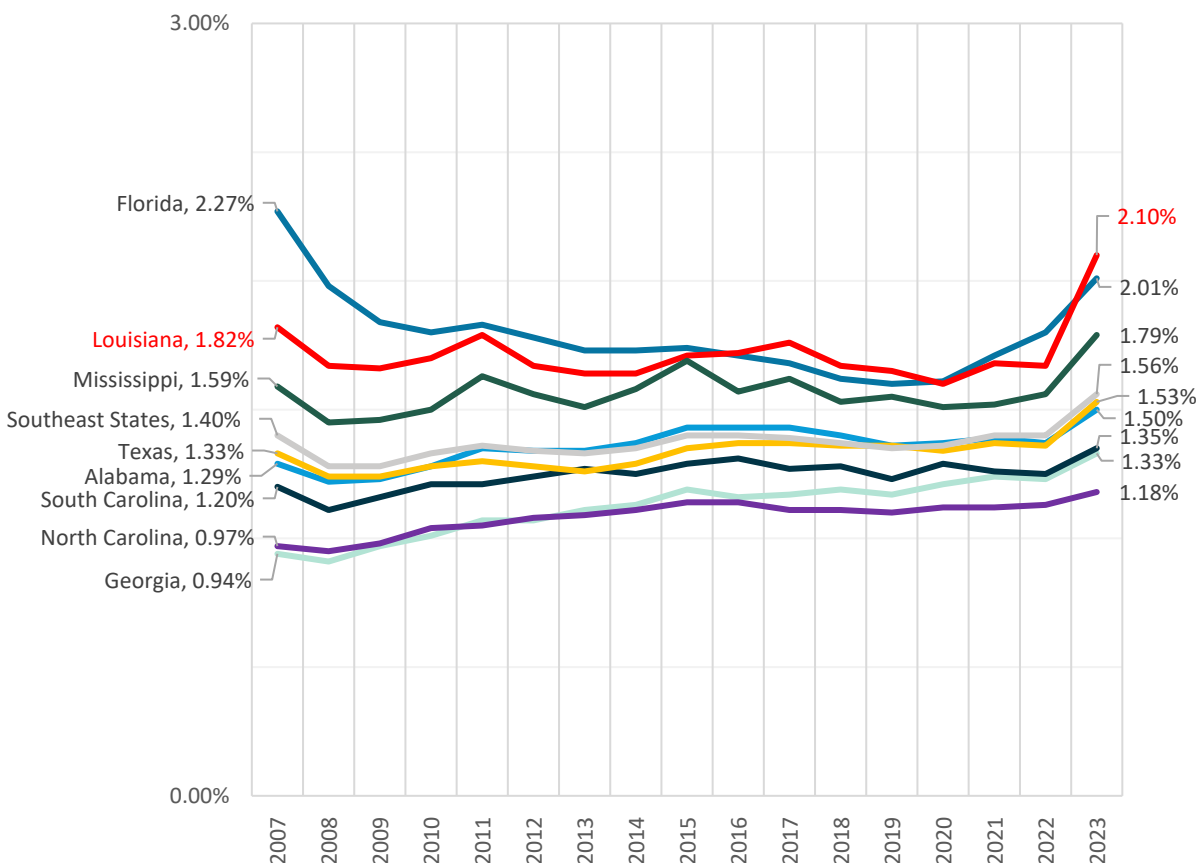
¹ Because of this report's focus on hurricane and windstorm damages, we focus on eight states lying in the "Wind Design Required" region per the 2021 International Residential Code (figure R301.2.1.1), namely Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, and North Carolina. Alaska and Massachusetts are the only other two states that fall in the wind design required region, but we exclude them because they are further north and subject to different weather patterns.

² This is also true when analyzing insurance spending as a percentage of home value.

³ We measured vulnerability to natural disasters using the National Risk Index prepared by the Federal Emergency Management Agency (FEMA) for 2023. Additional information on this can be found in Appendix A.

even Florida, which is the state most vulnerable to natural disasters, and the inland parts of Louisiana rank last when compared to the other states' inland areas. Homeowners and flood insurance spending as a percentage of household income rose more sharply in 2023 than in any year since at least 2007 for southeastern states. A significant factor behind this increase was an increase in the cost of reinsurance⁴ at the national level to its then-highest level since at least 1990. However, Louisiana's 26% increase in insurance premiums charged in 2023 was the largest of the eight southeastern states – in fact, it was the largest year-over-year increase among all these states since at least 2007. Exhibit 1 shows median insurance spending on homeowners and flood insurance since 2007 for the eight states we analyzed, and Appendix B provides the same results for hurricane-exposed and inland regions.

Exhibit 1
Median Homeowners and Flood Insurance Spending as a Percentage of Household Income Among Southeastern States
Calendar Years 2007 to 2023



Note: Excludes mobile homes, boats, RVs, and vans.

Source: Prepared by legislative auditor's staff using information from the U.S. Census Bureau.

⁴ Reinsurance is essentially insurance for insurance companies. We refer to the Guy Carpenter U.S. Property Catastrophe Rate-On-Line Index as an indicator of reinsurance costs.

To improve homeowners insurance availability and affordability, the Legislature has enacted several new laws since 2023. In January 2023, the state appropriated \$45 million in incentives to insurers through the Insure Louisiana Incentive Program to encourage insurers to write more policies, with an emphasis on insuring homes that had been in the Louisiana Citizens Property Insurance Corporation (Citizens), the state's insurer of last resort. In addition, the legislature has reduced the regulatory burden on insurers by repealing the "three-year" rule that barred insurers from canceling or non-renewing a homeowner's policy once the policy had been in effect for at least three years, and by streamlining the Louisiana Department of Insurance's (LDI) rate review process based on the file-and-use model. In addition, the Legislature suspended the 10% surcharge on premiums written by Citizens through December 31, 2027.

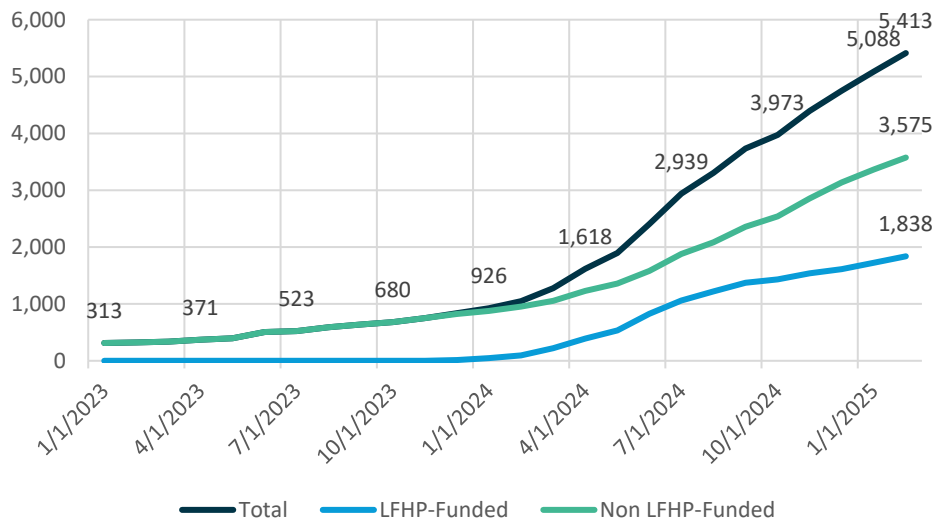
This report focuses on LFHP, which was allocated \$45 million of funding during fiscal years 2024 and 2025 to provide grant funding for homeowners to upgrade roofs on existing homes to the Insurance Institute for Business and Home Safety (IBHS) FORTIFIED Roof standard. Per LDI's regulations, the maximum grant award is \$10,000 per home, although the Commissioner of Insurance may modify this limit.⁵ While hurricanes and other windstorms can damage any part of a home's exterior, there are several reasons why wind retrofitting focuses on roofs. According to a 2004 study by IBHS assessing damages from Hurricane Charley, roofs were the building components most likely to sustain damages. Roof damage is especially problematic because it allows rain to enter the home and damage the structure and its contents. This can allow mold or fungal growth, rendering the structure uninhabitable and requiring the homeowner to incur additional living expenses (ALE) for temporary housing. Other issues that are difficult to assign a dollar value to are potential injuries or deaths from exposure to the elements and the hazardous aftermath of the storm, as well as the mental suffering of being displaced and losing belongings, especially sentimental ones. Federal, state, and local governments also often incur expenses to help homeowners recover from severe disasters, expenses that can be avoided if damages to homes are less widespread and severe. For these reasons, wind retrofit standards prioritize roofing upgrades as a first step that is most likely to benefit a broad cross-section of homeowners in hurricane-exposed areas, as well as taxpayers generally.

Although still in its early adoption phase, the FORTIFIED program has grown rapidly in Louisiana over the past two years. The first FORTIFIED certificate in Louisiana was issued in March of 2008, before the state had enacted incentives for it. It took a long time for the certificate program to gain traction in Louisiana. The first Louisiana legislation addressing FORTIFIED was Act 30 of 2021, which incorporated FORTIFIED into the building code insurance discount, and LFHP was created (but not funded) by Act 554 of 2022. By January 1, 2023, there were only 313 certificates issued in Louisiana. However, the year 2023 saw funds appropriated for the first time for LFHP grants as well as significant growth in the cost of homeowners' insurance. In the ensuing two years, the number of

⁵ Louisiana Administrative Code (LAC) 37:XIII.18205(D).

FORTIFIED certificates increased 17-fold. As of February 1, 2025, IBHS had issued 5,413 FORTIFIED certificates to property owners in Louisiana. There were 1,838 certificates recorded as having been LFHP funded (36% of the total increase since January 2023), and 3,575 (64%) not funded with LFHP. Exhibit 2 shows the cumulative number of FORTIFIED certificates issued in Louisiana since January 2023, and Exhibit 3 shows the number of FORTIFIED certificates issued by parish, including the total as well as the number funded by an LFHP grant.⁶

Exhibit 2
Cumulative Number of FORTIFIED Certificates Issued in Louisiana
January 2023 through February 2025



Source: Prepared by legislative auditor’s staff using information from IBHS.

⁶ Appendix C contains additional data on the number of FORTIFIED certificates by product (Home and Multifamily) and level (Roof, Silver, and Gold). FORTIFIED Silver and Gold are more intensive standards from IBHS that build on the FORTIFIED Roof standard but require the strengthening of progressively more aspects of the home, such as windows, doors, gable ends, and the roof-to-wall and wall-to-foundation connections.

Exhibit 3 Number of FORTIFIED Certificates Issued in Louisiana As of February 1, 2025							
Rank	Parish	Total	LFHP Funded	Rank	Parish	Total	LFHP Funded
1	Orleans	1,474	621	11	Lafayette	87	20
2	St. Tammany	1,189	437	12	St. Charles	67	11
3	Jefferson	1,140	538	13	Ascension	61	6
4	East Baton Rouge	209	57	14	St. John the Baptist	54	9
5	Terrebonne	204	13	15	Livingston	46	9
6	Calcasieu	172	2	16	Plaquemines	38	11
7	Lafourche	119	11	17	Pointe Coupee	35	0
8	St. Bernard	118	40	18	Cameron	18	0
9	Ouachita	108	0	19	Vermilion	17	2
10	Tangipahoa	89	16	20	St. James	17	0
				21-64	All others	151	35
				Grand Total		5,413	1,838
Note: IBHS data were listed by ZIP codes, which we translated to parishes using Census Zip Code Tabulation Areas. Parishes are ranked based on the total number of designations. Source: Prepared by legislative auditor's staff using data from IBHS and the U.S. Census Bureau.							

The FORTIFIED Roof standard (formerly known as FORTIFIED Bronze) has many detailed requirements, but the crux of the standard is to require the use of stronger fasteners and connectors to prevent the roof from being lifted up and blown away by strong winds, and to require the roof to have a secondary water resistance layer between the shingles and the wood decking so that water is less likely to get into the house even if the shingles become compromised. This is often accomplished by putting waterproof tape on the seams between panels of decking or by applying an adhesive ice and water shield to the decking. These upgrades generally require removing and replacing the existing shingles or other roof covering.⁷ Another important element of FORTIFIED is the requirement for an independent evaluator to confirm that the work was done and meets the standards. IBHS estimates that the additional requirements for a FORTIFIED Roof add \$1,000 to \$3,000 to the cost of re-roofing a 2,000-square-foot home to the baseline requirements of the building code. Closer to the Gulf Coast, where the wind hazard is more severe, some studies also recommend strengthening openings, such as windows and doors (especially attached garage doors), so that they will resist wind and wind-borne debris, as required by the FORTIFIED Silver standard. The FORTIFIED Gold standard, which requires additional steps to strengthen the structure (especially the roof-to-wall and wall-to-foundation connections), can be cost-effective for extremely high-risk areas like Grand Isle. In addition, Louisiana insurers are required to offer premium discounts for wind mitigation measures similar to those called for by the FORTIFIED requirements if the homeowner

⁷ In some cases, a homeowner with a roof in good condition can avoid having to remove and replace the shingles by pursuing the "existing roof" version of FORTIFIED Roof, which involves spraying polyurethane foam to the underside of the roof decking from inside the home's attic.

submits a Louisiana Hurricane Loss Mitigation Survey Form completed by a qualified inspector.⁸

While a FORTIFIED Roof does not add much protection against roof damage from falling trees or against flooding associated with hurricanes or other storms, they can substantially reduce windstorm-related property damages, both insured and uninsured. Reducing uninsured losses benefits Louisiana homeowners directly by saving them from having to pay losses up to their deductible amount, as well as losses not fully covered by insurance and non-financial losses. Reducing insured losses benefits homeowners indirectly in at least three potential ways:

- Premium Discounts. State law requires insurers to offer an actuarially-justified homeowners insurance discount for homes that meet FORTIFIED standards. While these discounts vary based on the insurer, location, and FORTIFIED level, the Property Insurance Association of Louisiana has derived an actuarially justified discount of 7% to 24% for a FORTIFIED Roof, with a smaller discount in the interior of the state and larger discounts in coastal areas.
- Price Competition. Achieving a high concentration of FORTIFIED properties in Louisiana may attract additional insurers to Louisiana's insurance market. Attracting more insurers would likely give consumers additional choices, lessen insurers' market power, and increase the pressure on insurers to lower prices and resolve claims to consumers' satisfaction.
- Reinsurance Rate Reduction. A high presence of FORTIFIED properties would be viewed favorably by reinsurers and would help insurers obtain reinsurance at lower cost for their business in Louisiana, leading to further savings that could be passed on to consumers. According to a reinsurance industry stakeholder, not all aspects of a given location's risk are captured by data, and reinsurers use their judgment to adjust models based on their perceptions of these hard-to-measure risks.

⁸ This is required by R.S. 22:1483(B). The form is available at <https://www.lidi.la.gov/docs/default-source/documents/propertycasualty/louisiana-hurricane-loss-mitigation-survey-form.pdf>. While the law requires insurers to offer both wind mitigation and FORTIFIED discounts, it does not require the insurer to allow an individual policyholder to receive both discounts. The insurer can require the policyholder to choose one or the other, even if the home has a wind mitigation certificate and a FORTIFIED certificate.

To evaluate LFHP, we reviewed state laws and regulations relating to the program, obtained and analyzed data on the program's activity, reviewed insurance rating information on FORTIFIED discounts, interviewed stakeholders, and studied other states' programs. In addition, we sent an emailed survey to homeowners who applied for the program and had a status of approved or denied (excluding those pending). We received a total of 694 valid, unique responses out of 3,257 participants contacted (a response rate of 21%). The objective of this informational report was:

To evaluate the economic impact of the Louisiana Fortify Homes Program.

Our results are summarized on pages 8 and 9 and are discussed in detail throughout the remainder of the report. Appendix A contains expected annual disaster losses by state and disaster type, Appendix B contains median spending on homeowners and flood insurance as a percentage of household income for southeastern coastal states from the U.S. Census Bureau for inland and hurricane-prone areas, Appendix C contains additional information on FORTIFIED certificates in Louisiana by product and level, and Appendix D contains details on our survey methodology, questions, and responses.

Informational reports are intended to provide more timely information than standards-based performance audits. While these informational reports do not follow *Governmental Auditing Standards*, we conduct quality assurance activities to ensure the information presented is accurate. We incorporated the Department of Insurance's feedback throughout this informational report.

Objective: To evaluate the economic impact of the Louisiana Fortify Homes Program

Overall, we found that undertaking a long-term effort to build new homes and retrofit existing ones in Louisiana to the FORTIFIED Roof standard would provide a range of benefits for the public. Based on our review of the Louisiana Fortify Homes Program (LFHP), we found the following:

Question 1. What are the benefits of retrofitting homes to the Insurance Institute for Business and Home Safety (IBHS) FORTIFIED Roof standard?

Answer: We found that the median homeowner who received an LFHP grant and got a FORTIFIED Roof saved \$1,250 (22%) on their annual homeowner's insurance costs, lowering their annual premium from \$5,625 to \$4,375. In addition, we estimate that retrofitting to a FORTIFIED Roof reduces a homeowner's uninsured losses over the long run by an average of \$213 per year. LFHP participants, including those who responded to our survey, are geographically clustered in the southern, hurricane-prone portion of the state, where the benefits of retrofitting tend to be higher than in the northern portion of the state.

Question 2. What is the cost of retrofitting to the IBHS FORTIFIED Roof standard?

Answer: The median cost to upgrade to FORTIFIED was \$16,229, or \$6,229 after accounting for the \$10,000 LFHP grant. We estimate that \$12,981 of this cost (80%) is the baseline cost of replacing the existing roof to the current building code, and the remaining \$3,248 (20%) is the additional cost to upgrade to FORTIFIED, including an estimated \$500 fee for the evaluator. Costs were higher for higher valued homes and for those with older roofs.

Question 3. Does the benefit of retrofitting to the FORTIFIED Roof standard exceed the cost?

Answer: In South Louisiana, the benefits of retrofitting to the FORTIFIED Roof standard generally exceed the costs. Over a 15-year period, we estimate that the present value of economic savings from having a FORTIFIED Roof will amount to \$17,879 for LFHP grant recipients, while the costs to have the roof installed and maintain the FORTIFIED designation for 15 years (including those paid out-of-pocket by the recipient as well as those covered by the LFHP grant) were \$17,027, resulting in a net gain for recipients. Economic savings consist of lower insurance premiums and less uninsured windstorm losses; these do not include non-economic benefits such as reduced stress, injuries, and fatalities. For parishes from Vernon, Rapides, and Avoyelles northward, the dollar value of savings from having a FORTIFIED Roof are less than the cost to install one, although homeowners in these areas may still wish to retrofit to a FORTIFIED Roof for other reasons.

Question 4. How satisfied were homeowners who participated in LFHP, and would they recommend the program to others?

Answer: Most homeowners were very satisfied with the LFHP program and are very likely to recommend it to family and friends, although homeowners had mixed views about the affordability of insurance after obtaining the discount and the clarity of information about how much they could save by getting a FORTIFIED Roof. Most homeowners reported that their LFHP grant was a decisive factor in getting a FORTIFIED Roof.

Question 5. Are low-to-moderate income households able to benefit from LFHP?

Answer: Although very low-income households, with home values less than \$90,000, are underrepresented in the program, the program is able to reach homeowners in the middle of the wealth distribution. LDI has partnered with community service organizations in an effort to help more low-to-moderate income (LMI) homeowners participate. According to LDI, the goal of its partnerships with other organizations is to leverage other grant programs such as the Federal Home Loan Bank of Dallas's FORTIFIED grant program, federal funding, and private philanthropic dollars in an effort to reach more low-income individuals.

Question 6. How does Louisiana's FORTIFIED grant program, LFHP, compare to similar grant programs in neighboring states?

Answer: Six southeastern coastal states (including Louisiana) offer a homeowner grant program related to wind mitigation. Louisiana's grant program is the second newest, and it has been allocated the third lowest cumulative amount of funding relative to the amount of housing stock the state has in hurricane-prone areas. Louisiana's grant program is structured similarly to how other states structure their programs.

This information is discussed in more detail on the pages that follow.

Question 1. What are the benefits of retrofitting homes to the IBHS FORTIFIED Roof standard?

Roofs meeting the FORTIFIED Roof standard are more wind-resistant and are less likely to experience damages as a result of hurricanes.

Securing a roof is a powerful preventive measure, because a roofing failure can cause cascading losses as wind and water enter the home and damage the rest of the structure and personal property inside it. Dislodged roofing materials can also become part of a wind-blown debris field that can damage neighboring structures. Exhibit 4 shows the variety of ways in which having a FORTIFIED Roof can be beneficial. This study focuses on items 1 and 2 from the exhibit below.

Exhibit 4 Impact of Installing a FORTIFIED Roof

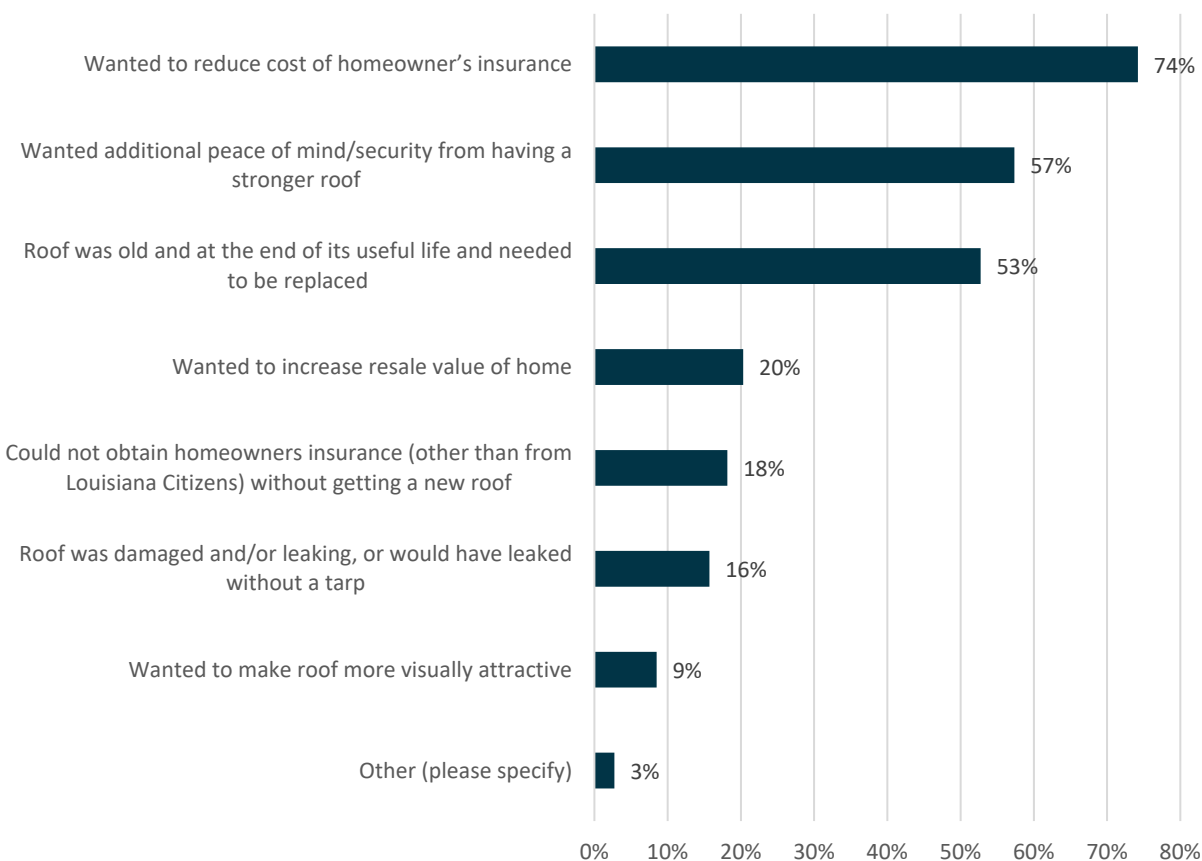


Source: Prepared by legislative auditor's staff.

Based on our survey of Louisiana homeowners who participated in the LFHP, saving on insurance, enjoying greater peace of mind, and replacing an existing roof at the end of its useful life were the top three reasons selected by homeowners for why they wanted a FORTIFIED Roof, with 93% selecting at least one of these reasons. The top reason cited by homeowners (74%) for wanting a FORTIFIED Roof was to reduce the cost of insurance (Exhibit 5). This is not surprising in light of the high cost of insurance in Louisiana relative to other southeastern coastal states and the rapid growth of insurance premiums in recent years (as shown previously in Exhibit 1). The next most common concerns were peace of mind and a desire to replace an existing roof that was at the end of its useful life. Fewer homeowners were concerned with resale value, inability to obtain insurance, or making their roof more visually attractive. Some respondents (16%) were also trying to repair existing damage. Exhibit 5 shows the reasons why individuals chose to participate in the LFHP program.

Exhibit 5
Why LFHP Participants Wanted a FORTIFIED Roof
Participants in January 2025 Survey

Percent citing "... " as reason



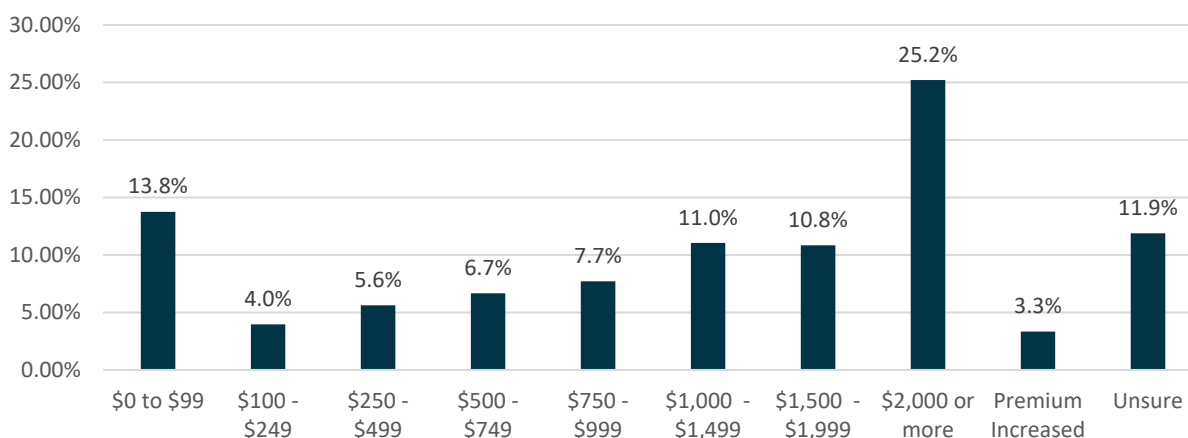
Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

We estimate that the median homeowner who upgrades to a FORTIFIED Roof will save \$1,463 per year, resulting from \$1,250 in insurance premium discounts and \$213 in uninsured losses mitigated over the life of their roof. The median LFHP grant recipient reported that they were able to reduce their annual insurance premium by \$1,250 (22%), from \$5,625 to \$4,375, by getting a FORTIFIED Roof. Over a 15-year lifespan, we estimate that these savings would have a present value of \$15,273.⁹ Exhibit 6 summarizes the insurance discounts that homeowners received.

The 2021 Edition of the **International Residential Code (IRC)** is the basis for the **Louisiana State Uniform Construction Code (LSUCC)** and applies statewide in Louisiana, although there are stricter requirements in South Louisiana where hurricane winds are more frequent.

The **FORTIFIED Roof** standard is a voluntary standard developed by the insurance industry that is stricter than the IRC to be more hurricane resistant and allow homeowners to receive insurance discounts.

Exhibit 6
Savings on Annual Insurance Premium from Retrofitting to FORTIFIED Roof
Participants in January 2025 Survey



Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

Homeowners are able to save on insurance premiums in two ways: premium discounts and access to lower-cost insurers. State law¹⁰ requires insurers to offer actuarially-justified discounts for homes that satisfy the requirements of FORTIFIED. These vary from insurer to insurer. LDI has compiled a list of FORTIFIED discounts, although in many cases these discounts are specified as a percentage of the hurricane portion of the homeowner's premium, making it difficult to know how large the discount is compared to the total premium or to

⁹ Consistent with FEMA's benefit-cost analysis model, we use a 3.1% discount rate to determine present value.

¹⁰ R.S. 22:1483(C).

quantify the dollar amount of the discount. As an alternative, we can consider the actuarially-determined discount established by the Property Insurance Association of Louisiana (PIAL), which publishes benchmark rates for property insurance carriers operating in the state.¹¹ PIAL's discount is expressed as a percentage of the total premium, and it ranges from 24.3% near the coast to 7.2% in the northern part of the state. Exhibit 7 shows the magnitude of this discount in percentage terms, by territory. LFHP recipients who did not change carriers reported an average discount of 17.3%, close to the PIAL benchmark for Zone B (98% of respondents lived in Zones A or B).

Exhibit 7 Property Insurance Association of Louisiana Discounts for FORTIFIED Roof/Bronze Properties		
Territory	FORTIFIED Roof Discount	Parishes Covered
Zone A	24.3%	Cameron*, Iberia*, Jefferson*, Lafourche*, Orleans, Plaquemines*, St. Bernard*, St. Mary*, Terrebonne*, Vermilion*
Zone B	17.1%	Acadia, Allen, Ascension, Assumption, Beauregard, Calcasieu, Cameron*, East Baton Rouge, East Feliciana, Evangeline, Iberia*, Iberville, Jefferson*, Jefferson Davis, Lafayette, Lafourche*, Livingston, Plaquemines*, Pointe Coupee, St. Bernard*, St. Charles, St. Helena, St. James, St. John the Baptist, St. Landry, St. Mary*, St. Tammany, Tangipahoa, Terrebonne*, Vermilion*, Washington, West Baton Rouge, West Feliciana
Zone C	7.2%	Avoyelles, Bienville, Bossier, Caddo, Caldwell, Catahoula, Claiborne, Concordia, De Soto, East Carroll, Franklin, Grant, Jackson, LaSalle, Lincoln, Madison, Morehouse, Natchitoches, Ouachita, Rapides, Red River, Richland, Sabine, Tensas, Union, Vernon, Webster, West Carroll, Winn
* Denotes parishes that are split across multiple zones. Source: Prepared by legislative auditor's staff using information from PIAL.		

Another way that FORTIFIED Roof owners saved on insurance is by switching to a different insurance carrier, particularly for the 17% of respondents who switched out of the Louisiana Citizens Property Insurance Corporation (Citizens), the state's insurer of last resort.¹² Citizens is required by law¹³ to charge at least as much as the most expensive insurer with a significant number of policies in each

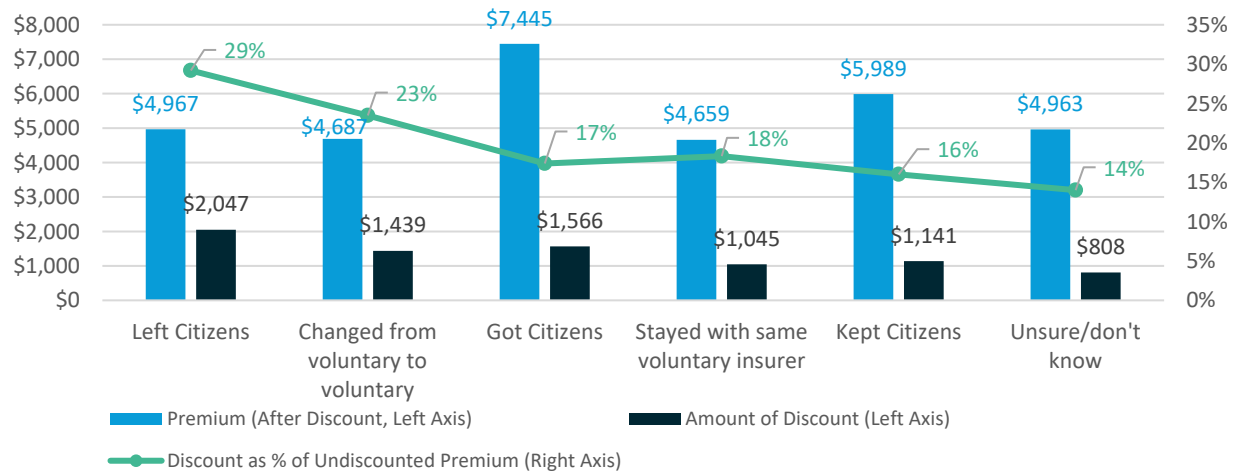
¹¹ According to LDI, PIAL has no policies of its own, and companies are free to deviate from PIAL's discount amounts and territory definitions. R.S. 22:1460(A) designates PIAL's rates as the default rates if an insurer does not choose to file its own rates.

¹² In Exhibit 8, the "left Citizens" category is designed to include anyone who had homeowners coverage through Citizens and changed to another carrier, as well as those who had a wind and hail only policy from Citizens and switched to another carrier for that coverage.

¹³ R.S. 22:2303

parish, so homeowners who switch out of Citizens can often save by obtaining coverage that is not subject to the same price floor. Those who kept coverage with Citizens after getting a FORTIFIED Roof were the group who saved the least (excluding those who were unsure or did not know). Based on interviews with stakeholders, some private insurers are hesitant to write a homeowners policy that covers wind and hail unless the property has a relatively new roof. In addition, homeowners who had coverage through a voluntary insurer (i.e., any insurer besides Citizens) and moved to a different voluntary carrier had larger savings than those who stayed. Thus, getting a FORTIFIED Roof opens doors for homeowners and helps them to save in ways beyond the discount. Exhibit 8 shows how much homeowners saved, based on whether they changed carriers.

Exhibit 8
Average Size of FORTIFIED Discount by Change in Insurer
Participants in January 2025 Survey



Source: Prepared by legislative auditor's staff using self-reported information from LFHP participants.

We estimate that the median homeowner will save \$213 per year, equating to a discounted present value of \$2,606 over a 15-year period, in uninsured losses because of the additional protection provided by a FORTIFIED Roof. The reduction in uninsured losses represents the losses that a homeowner would have to pay out of pocket because they would be less than the hurricane deductible, which we assume to be 5% of the home value. We derived the \$213 per year figure by using a toolkit developed by the Federal Emergency Management Agency (FEMA) to estimate how much damage a structure with the FORTIFIED Roof enhancements would sustain in a hurricane wind scenario versus

structures without those enhancements.¹⁴ The exact amount each homeowner saves will depend heavily on how much each area winds up being exposed to hurricane-force winds. In general, most homes do not experience hurricane-force winds in any given year, even in a hurricane-prone region like South Louisiana. Instead, the amount of damage sustained in a given hurricane wind scenario is multiplied by the probability that the given scenario would occur. These dollar amounts can then be summed to arrive at an overall average figure for a given location.

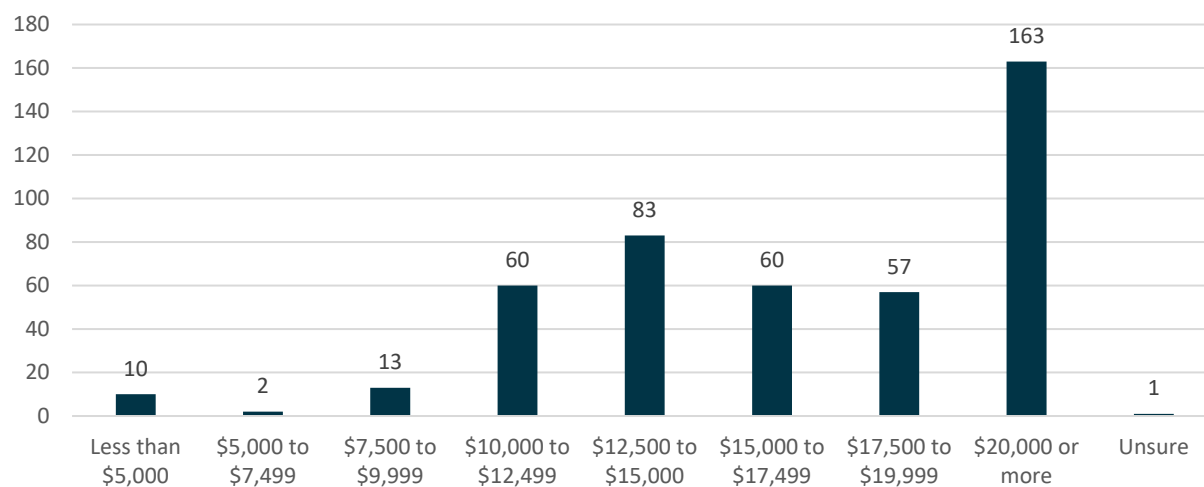
Question 2. What is the cost of retrofitting to the IBHS FORTIFIED Roof standard?

The median homeowner who responded to our survey had a \$275,000 home and spent approximately \$16,229 to obtain a new roof built to the FORTIFIED Roof standard, or \$6,229 after accounting for their \$10,000 FORTIFIED Roof grant. The cost of a FORTIFIED Roof can be broken down into three parts: the baseline cost to replace the roof to code, the additional cost to upgrade to FORTIFIED, and the evaluation fee.¹⁵ The median cost for all three parts reported by survey participants was \$16,229. Based on our review of literature on FORTIFIED Roofs, we estimate that the baseline cost of replacing the existing roof in accordance with the building code is 83% of the construction cost, while the incremental cost of upgrading to FORTIFIED accounted for the remaining 17% of that cost, not including the evaluator's fee. As a result, we estimate that the median cost of replacing the existing roof to the current building code is \$12,981, and the remaining \$3,248 being the additional cost to upgrade to FORTIFIED, including a \$500 fee for the evaluator. The evaluators' fees were typically reported to be anywhere from \$300 to \$600 per inspection, with renewal inspections required at five-year intervals to maintain the designation and associated insurance discounts. Exhibit 9 shows the range of costs reported by homeowners for the entire project, including the portion they paid out of pocket as well as the portion covered by grants and insurance claims.

¹⁴ We derived these estimates using the FEMA's Benefit-Cost Analysis toolkit, version 6.0. We calculated losses before and after mitigation for a standardized 1,250 square foot, one-story, single-family, wood-frame, urban (exposure B) home based on ZIP codes. We assumed the structure had no shutters and no garage door. We used the "uncertain" option for gable or hip, and for whether the roof-wall attachment was toe-nailed or used straps. Before mitigation, we assumed the house had no secondary water resistance and 6d nails at a 6"/12" pattern; after mitigation, the house had secondary water resistance and 8d nails at a 6"/6" pattern.

¹⁵ As noted previously in footnote 7, there is a spray-on polyurethane foam option that enables the homeowner to get a FORTIFIED Roof without the extra expense of removing and replacing the existing shingles. LDI officials stated that they approved a small number of LFHP grants for spray-foam retrofits for homes with recently installed, code-compliant roofs, to avoid the expense of removing and replacing shingles with several years of useful life remaining. However, these were estimated to be less than 5% of all LFHP grants.

Exhibit 9
Total Cost of FORTIFIED Roof
Participants in January 2025 Survey



Note: Survey participants were asked to include the total cost of labor and materials, including the roofer and evaluator, as well as any additional architects, engineers, or other contractors hired to upgrade the roof. Exact wording is provided in Appendix D.

Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

Home value and roof age were key predictors of how much the FORTIFIED Roof upgrade would cost, with high-value homes and homes with older roofs having higher costs to upgrade. The average homeowner with a home valued less than \$90,000 paid only \$11,328 to retrofit,¹⁶ less than half of the \$24,496 cost for those with homes valued at more than \$325,000. Similarly, homeowners with newer roofs, less than 5 years old, were able to retrofit for an average cost of \$16,390, only 64% of the \$25,513 cost for roofs that were more than 30 years old. This is likely because higher-valued homes are likely to be larger, and may have steeper or more complex roofs or use costlier roofing materials. In addition, officials at LDI and other stakeholders noted that older roofs were more likely to have damaged or sub-standard decking that had to be replaced, which drove up the cost. Exhibits 10 and 11 show the total cost before and after accounting for LFHP grants. The average cost was \$20,492, before accounting for the average LFHP grant of \$9,964 (98% of grant recipients received the maximum grant amount of \$10,000).

¹⁶ Survey takers reported their costs in ranges, as shown in Exhibit 9. To estimate the mean cost based on home value and roof age, we collapsed the cost ranges to the conditional expected value of cost, given that the cost fell in that range. To do this, we fitted a log-normal distribution using interval regression to estimate the mean and standard deviation of the latent cost variable, and then used the appropriate conditional expectation formula.

Exhibit 10			
Relationship Between FORTIFIED Roof Cost and Home Value			
Participants in January 2025 Survey			
Home Value	Average Cost (Before Grant)	Average Cost (After Grant)	Number of Responses
Less than \$90,000	\$11,328	\$1,953	2
\$90,000 to \$159,999	15,236	5,336	25
\$160,000 to \$229,999	14,100	4,157	87
\$230,000 to \$324,999	19,270	9,323	116
\$325,000 or more	24,496	14,502	206
Unsure/prefer not to say	22,390	12,390	13
Overall Average	\$20,492	\$10,528	449

Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

Exhibit 11			
Relationship Between FORTIFIED Roof Cost and Roof Age			
Participants in January 2025 Survey			
Roof Age	Average Cost (Before Grant)	Average Cost (After Grant)	Number of Responses
Less than 5 years	\$16,390	\$6,453	20
5 to 9 years	18,029	8,091	40
10 to 14 years	19,983	10,007	101
15 to 19 years	20,741	10,773	191
20 to 29 years	22,762	12,819	66
30 years or more	25,513	15,513	8
Unsure	20,260	10,260	23
Overall Average	\$20,492	\$10,528	449

Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

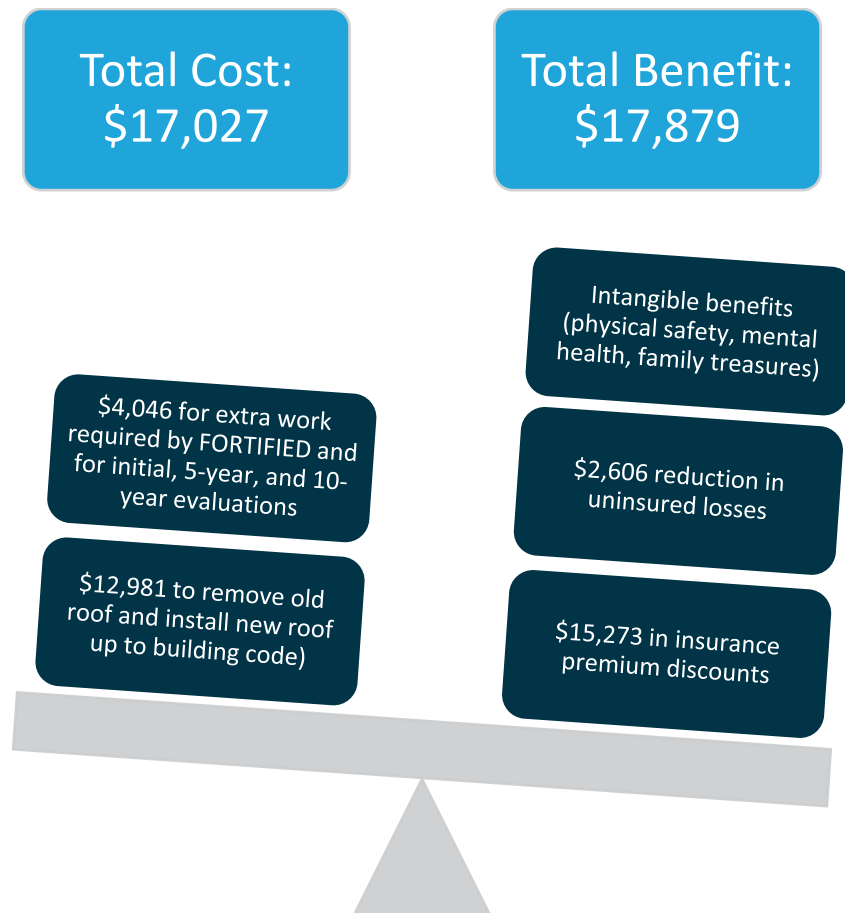
Question 3. Do the benefits of retrofitting to the FORTIFIED Roof standard exceed the costs?

In South Louisiana, the benefits of retrofitting to the FORTIFIED Roof standard generally exceed the costs, particularly for homes that were already due for a roof replacement or for new construction. As noted previously in this report, the median cost to upgrade to a FORTIFIED Roof, including the initial cost of the roofing work itself and the initial evaluation fee, was \$16,229. In addition, we assume homeowners will need to pay \$500 after 5 years and 10 years, respectively, to maintain the designation for 15 years. These come to a total median cost of \$17,027 in present value, before accounting for the LFHP grant.¹⁷

¹⁷ Because the LFHP grant is a benefit to a Louisiana-resident homeowner but also a cost to the state, it is merely a transfer payment and has no net benefit by itself. We focus instead on whether the incentivized activity, getting a FORTIFIED Roof, has a net benefit.

As noted previously, the median survey respondent reported that they saved \$1,250 per year in insurance premiums, and we estimate that they will save an average of \$213 per year in uninsured losses from building and contents damages as well as additional living expense (ALE). Assuming a 15-year lifespan for the FORTIFIED Roof, the present value of these benefits is \$17,879. Exhibit 12 illustrates this calculation.

Exhibit 12
Median Costs and Benefits of Installing a FORTIFIED Roof
Participants in January 2025 Survey



Source: Prepared by legislative auditor's staff based on analysis of LFHP participant survey responses and staff's analysis of the FEMA Benefit-Cost Analysis toolkit.

Homes that are closer to the coast and more exposed to hurricane-force winds tended to have higher benefit-cost ratios than those further inland. Exhibit 13 shows the median costs and benefits reported by survey respondents in each wind zone, indicated by miles per hour (mph). While insurers vary in how they determine what size discount applies in different geographic areas, the savings tend to be larger near the coast because hurricanes are more frequent and severe in these areas, and mitigating to protect against them has a greater impact. In general, we found that LFHP recipients in areas very near the coast, in areas like the South Shore of the New Orleans area, would see enough of

a reduction in insurance premiums and uninsured losses to pay for the total cost of the FORTIFIED Roof upgrade (indicated by a total benefit-cost ratio greater than 1 in column E in Exhibit 13). The benefits are more than four times as much as the incremental cost to go above code with a roof replacement and meet the FORTIFIED Roof requirements (column F). In areas further inland, such as the Mandeville and Covington areas, we estimate that the benefit is 95% of the full up-front expenditure of replacing the roof, but still more than four times the extra cost of upgrading from a building code-compliant roof to a FORTIFIED Roof. For comparison, the National Institute of Building Sciences in 2019 estimated a benefit-cost ratio (using the incremental cost of a FORTIFIED Roof) of 1.5 to 6.8 for areas in the 115 to 140 miles per hour wind zones.¹⁸ In areas significantly further inland, from roughly Vernon, Rapides, and Avoyelles parish northward, the economic benefits of retrofitting a home to the FORTIFIED Roof Hurricane standard do not currently exceed the costs because the risk of severe hurricane winds is lower in these areas. However, homeowners in the northern part of the state may still wish to upgrade to the FORTIFIED Roof requirements for non-economic reasons, such as greater peace of mind or added protection if severe storms become more common.

Exhibit 13 Benefit-Cost Analysis by Wind Exposure Estimated Median Costs and Benefits Participants in January 2025 Survey						
ASCE 7-16 Wind Zone (miles per hour)	Base Cost to Reroof to Building Code	Additional Cost of Upgrade and Evaluator for FORTIFIED Roof	Total Cost of FORTIFIED Roof Upgrade	Total Benefit	Benefit-Cost Ratio, Total Cost	Benefit-Cost Ratio, Incremental Cost of FORTIFIED
	<i>A</i>	<i>B</i>	<i>C = A + B</i>	<i>D</i>	$E = \frac{D}{C}$	$F = \frac{D}{B}$
Less than 130	\$25,646	\$6,727	\$32,373	\$2,428	0.08	0.36
130-139	15,030	4,479	19,509	18,578	0.95	4.15
140 or more	12,981	4,046	17,027	17,879	1.05	4.42
Overall Median	\$12,981	\$4,046	\$17,027	\$17,879	1.05	4.42
Note: ASCE 7-16 is a map that prescribes design wind speeds for all locations in the United States. The design speed for any location can be found by visiting www.ascehazardtool.org . Source: Prepared by legislative auditor's staff based on analysis of LFHP participant survey responses and staff's analysis of the FEMA Benefit-Cost Analysis toolkit.						

Overall, we can evaluate the net benefit of upgrading to a FORTIFIED Roof using three risk categories: high, moderate, and low. There is no single metric that fully captures risk, but wind exposure (measured by the ASCE 7-16 design wind speed) is a useful starting point for homeowners and state policymakers. Each category can be described as follows:

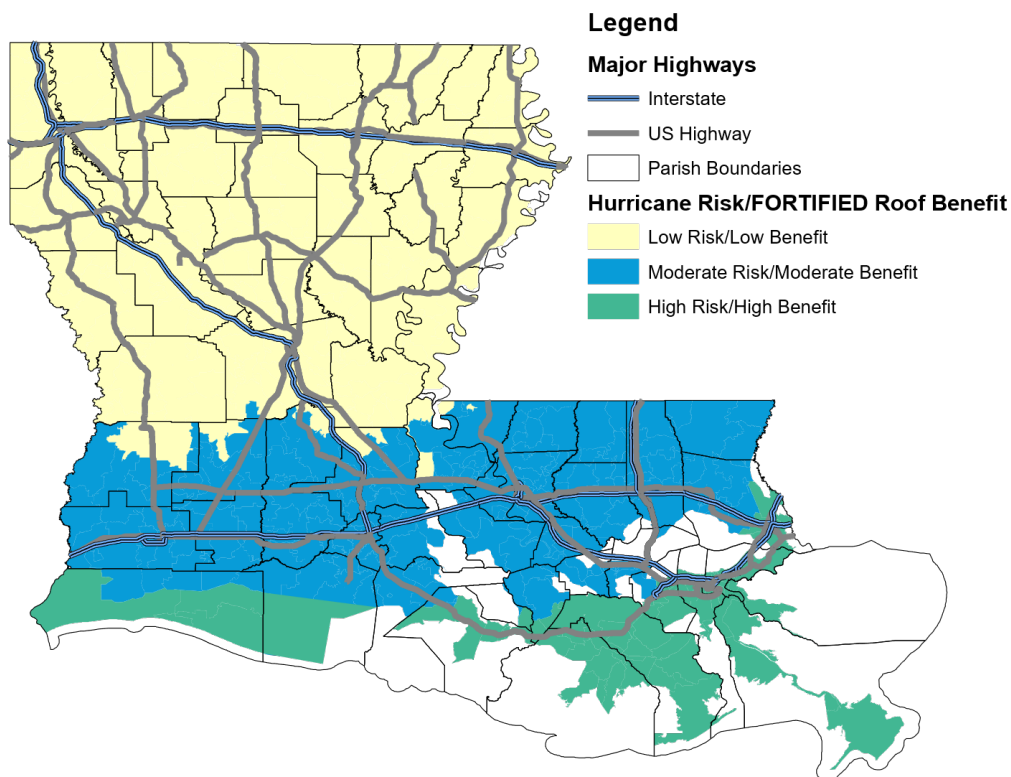
¹⁸ National Institute of Building Sciences (2019). "Natural Hazard Mitigation Saves." Table 2-14, p. 99. Their analysis considered benefits from property, contents, ALE, indirect business interruption, and insurance.

- Low-risk (less than 115 mph): FORTIFIED Roof retrofitting does not have a positive economic return, although homeowners may still wish to upgrade for non-economic reasons.
- Moderate-risk (between 115 and 140 mph): When the existing roof reaches the end of its useful life, FORTIFIED Roof retrofitting is likely to be beneficial.
- High-risk (greater than 140 mph): FORTIFIED Roof retrofitting is likely to be beneficial at any time.

Exhibit 14 shows the geographic extent of the high-, moderate-, and low-risk zones. While they do not exactly overlap, these wind zones are consistent with LDI's limiting recent rounds of funding for LFHP to homes in the state's Coastal Zone and in the Lake Charles areas.¹⁹

¹⁹ LDI provided the following link to the state's Coastal Zone boundary:
<https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=9870cbd0311c43b1975fbf37006d2330&layerId=0>.

Exhibit 14 Hurricane Risk and Net Benefit of FORTIFIED Roof



Note: Hurricane risk is based on the ASCE 7-16 design wind speed from the ASCE Hazard Tool for each ZIP code. Areas in white are areas not covered by a Census-assigned ZIP Code Tabulation Area and consist primarily of wetlands or open water. We manually drew the high-risk area for Vermilion Parish because the ZIP codes in the southern portion of the parish were too large to show which parts of the parish were moderate- or high-risk.

Source: Prepared by legislative auditor's staff based on analysis of LFHP participant survey responses and staff's analysis of the FEMA Benefit-Cost Analysis toolkit, and geographic information from the U.S. Census Bureau.

In addition, the National Institute of Building Sciences has found the FORTIFIED Silver designation to be the optimal wind retrofit plan for areas with a design wind speed of 120 to 150 miles per hour, which covers all parishes spanning from St. Tammany westward through roughly the middle of Beauregard, and those to their south.²⁰ Importantly, this includes major population centers in Lake Charles, Lafayette, Baton Rouge, Hammond, Houma, Thibodaux, and the North Shore and South Shore of the New Orleans area. The Silver designation incorporates all of the requirements of FORTIFIED Roof and adds requirements to strengthen doors, windows, soffits, gable ends, and chimneys to be more wind resistant. This may require replacing existing windows and doors, or installing shutters. LFHP does not cover the costs of upgrading beyond FORTIFIED Roof to FORTIFIED Silver, but homeowners and builders should be aware of FORTIFIED Silver and consider adopting its requirements, particularly when replacing existing

²⁰ Ibid.

doors and windows or installing new ones.²¹ Many insurers offer a larger discount for homeowners who upgrade to FORTIFIED Silver. The highest level of protection, FORTIFIED Gold, is not currently the optimal standard except for highly-exposed areas with design wind speeds exceeding 160 miles per hour, such as Grand Isle, or areas in Plaquemines Parish such as Port Sulphur and communities located further downriver. Another study found that the optimal package of retrofits for homes in the 130 to 140 mph wind bands included elements of the FORTIFIED Roof, Silver, and Gold designations.²² FEMA published a 2023 guide containing pre-defined “mitigation packages” for wind retrofitting of residential buildings with basic, intermediate, and advanced packages, which correspond closely to the FORTIFIED Roof, Silver, and Gold designations.²³

There are several caveats to this analysis. Some homeowners may have been forced to pay more to repair underlying roof damage or correct other issues, such as dry-stack masonry foundations.²⁴ These issues would drive up the cost of upgrading to FORTIFIED, but the full benefit may not be captured here. In such cases, our benefit-cost ratio could underestimate the true benefit-cost ratio. On the other hand, some homeowners may not renew their IBHS FORTIFIED designation at the required 5-year and 10-year points. According to IBHS, about 80% of homeowners reapply to renew their designations at the 5-year and 10-year points, but among those who reapply, the success rate is generally 98% to 99%. According to IBHS, this can happen because the home sold, the owner is unable or unwilling to pay for the evaluation fee, or the owner knows they will not qualify. To the extent that homeowners do not renew their designation, this would tend to cause the benefit-cost ratios reported here to overstate the benefit of a FORTIFIED Roof.²⁵

Nevertheless, based on the extensive literature on the FORTIFIED Roof program, and the demonstrable benefit to homeowners in the form of lower insurance premiums and uninsured losses, and the difficult-to-quantify but still meaningful reduction in physical injuries, death, and psychological hardship, we believe that LFHP provides a positive return on investment for the state.

²¹ Many of the additional requirements for FORTIFIED Silver are included as items on the wind mitigation survey referenced in footnote 8.

²² Orooji, Friedland, Savio, Taghinezhad, Massarra, Bushra, Rohli (2022). “Generalized Cost-Effectiveness of Residential Wind Mitigation Strategies for Wood-Frame, Single Family House in the USA.” *Frontiers in Built Environment*, Vol. 7. URL: <https://doi.org/10.3389/fbuil.2021.745914>. Specifically, the study found that the optimal retrofit for homes in the 130 to 140 mph wind contours would include secondary water resistance (Roof), shutters (Silver), and strengthened roof-to-wall connections (Gold).

²³ FEMA (2023). “Wind Retrofit Guide for Residential Buildings.” FEMA P-804, Second Edition, April 2023.

²⁴ Dry-stack masonry foundations are bricks or concrete masonry units (cinderblocks) stacked to create a pier for a home to rest on, without the use of mortar. Because of the inability of dry-stack masonry foundations to withstand high winds, homeowners seeking a FORTIFIED Roof designation must replace dry-stack masonry with an approved foundation.

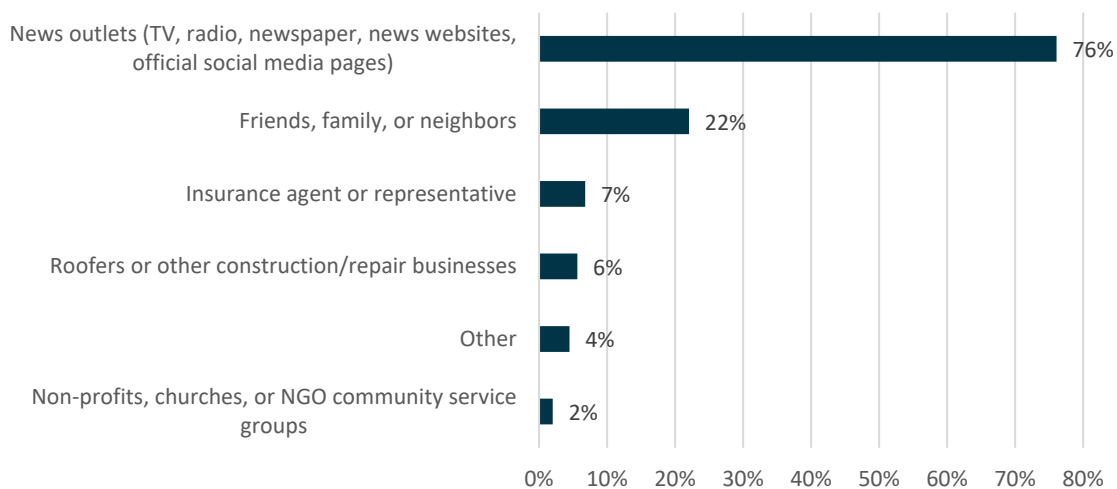
²⁵ IBHS officials noted that they are studying the aging and performance of asphalt shingles in various outdoor environments, which may impact future re-designation eligibility criteria, but no such changes are imminent. Stricter criteria on shingle condition could potentially lower the benefit-cost ratio because there would be fewer years of insurance discounts for the same level of up-front investment or because additional expenditure would be needed to maintain the FORTIFIED designation.

Furthermore, the pace of adoption needs to increase significantly in order for the state to have a meaningful percentage of homes certified as FORTIFIED. With 677,000 owner-occupied homes in hurricane-prone parts of the state, to get 25% of these certified as FORTIFIED over a 10-year period would require the number of new certificates issued every month to increase from its current average of 364 to 1,365, a 275% increase. LDI officials stated that their eventual goal is to have the requirements of FORTIFIED incorporated into the building code and for LFHP to serve as a catalyst for more widespread implementation of FORTIFIED Roof building practices, particularly by ensuring the state has a workforce in roofing and related industries with the knowledge and skills to build FORTIFIED Roofs.

Raising awareness among homeowners is another key aspect of the program. The vast majority of homeowners (76%) who have applied so far to LFHP learned about the program from news outlets. Very few learned about the program through roofers or insurance agents (6% and 7%, respectively), suggesting that both groups could play a larger role in increasing awareness and adoption of FORTIFIED throughout the state. Exhibit 15 shows how LFHP participants heard about the program.

Exhibit 15
How LFHP Participants Heard about the Program
Participants in January 2025 Survey

Percent citing ". . ." as source



Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

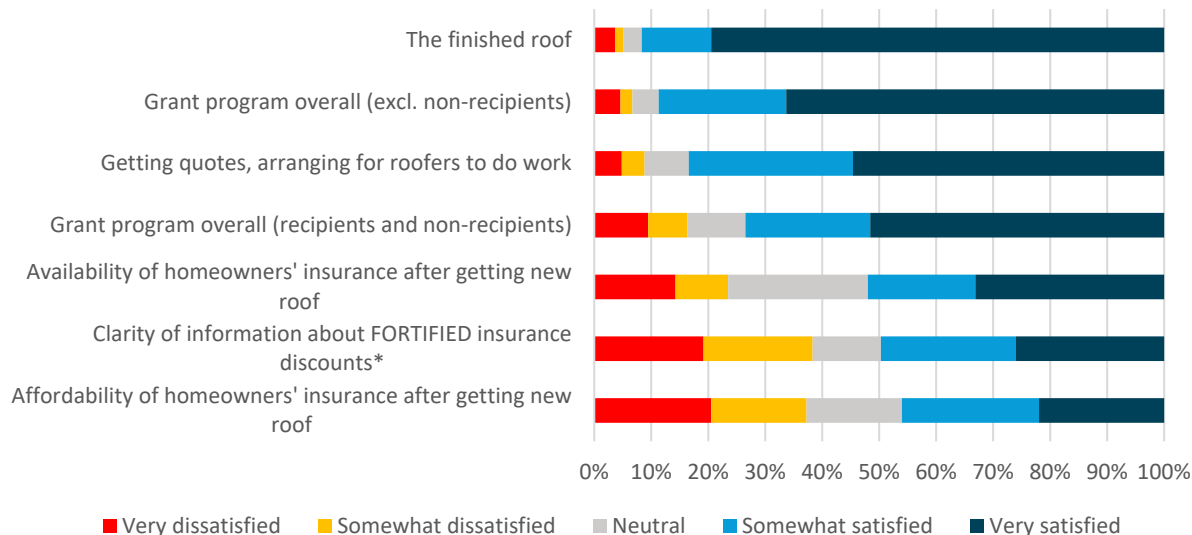
Question 4. How satisfied were homeowners who participated in LFHP, and would they recommend the program to others?

Most homeowners were very satisfied with the LFHP program and are very likely to recommend it to family and friends, although homeowners had mixed views about the affordability of insurance after obtaining the discount and the clarity of information about how much they could save by getting a FORTIFIED Roof. We obtained 694 responses to our survey of LFHP recipients and non-recipients containing participants' views on their experience with the program and with the insurance market as a whole. Satisfaction was highest with the finished roof, with 92% satisfied and 5% dissatisfied. Satisfaction with the grant program overall was higher among recipients (89%) than it was among the entire population of recipients and non-recipients (73%), suggesting that resource constraints and program rules are an understandable source of frustration for those who miss out on a grant because of them.²⁶ The two issues that participants were least satisfied with were the clarity of the information about FORTIFIED insurance discounts, and the affordability of homeowners' insurance after getting a new roof. With FORTIFIED still in its early adoption period in Louisiana, this suggests that making it easier for homeowners to understand the value proposition of upgrading to FORTIFIED from an insurance perspective may help with getting more homeowners on board. Exhibit 16 shows how satisfied homeowners were with various aspects of the program.

²⁶ Townhouse owners in particular were dissatisfied because they did not qualify. According to IBHS, townhouses are eligible only if all units are evaluated and approved simultaneously.

Exhibit 16 Satisfaction with the Louisiana Fortify Homes Program Participants in January 2025 Survey

How satisfied were you with . . .



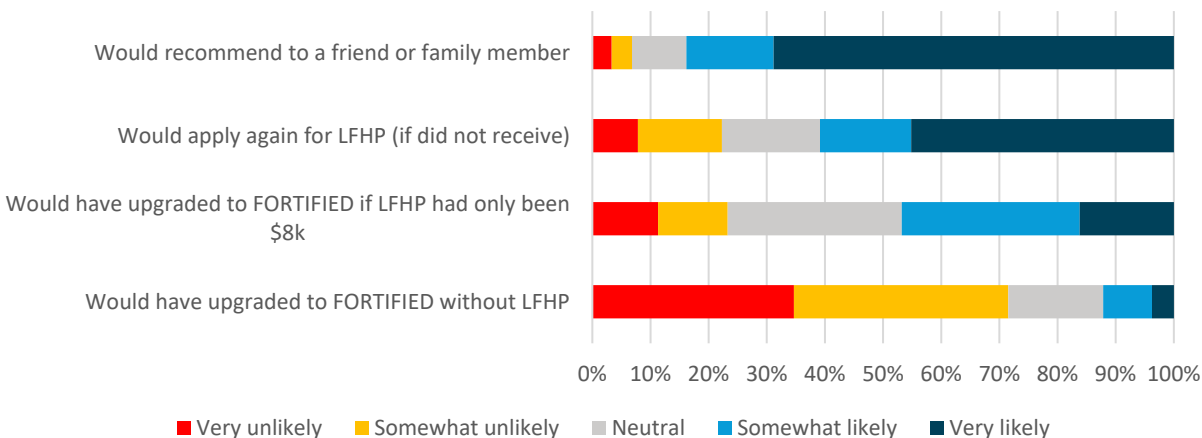
* The question on the survey asked homeowners if they thought the discounts were clear and easy to understand, with five responses possible using the same very/somewhat/neutral modifiers used in other questions. We include the results here with the satisfaction/dissatisfaction questions for the sake of presentation. Exact survey wording can be found in Appendix D.

Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

Most homeowners reported that their LFHP grant was a decisive factor in getting a FORTIFIED Roof, and that they would recommend LFHP to friends and family. The \$10,000 LFHP grant appears to have been a key motivating factor for most of the participants in the program. Among those who did get a FORTIFIED Roof, only 12% said that they likely would have upgraded to FORTIFIED even if they hadn't received a grant, while 72% said that they likely would not have. On the other hand, a slightly smaller grant amount of \$8,000 would not have dissuaded most participants – only 23% said that they likely would not have gotten a FORTIFIED Roof with a reduced grant. The advantage of lowering the grant amount to \$8,000 is that it would enable 25% more homeowners to receive grants with the same total amount of funding, but it would need to be balanced carefully against the potential risk of making the program unaffordable for low- to moderate-income homeowners. The fact that most of those who did not receive an LFHP grant would apply again, and that 84% of respondents would recommend the program to a friend or family member, suggests that people see the value in the program, and that it is helping to raise public awareness of FORTIFIED. Exhibit 17 shows these responses to the survey.

Exhibit 17 Likelihood of Taking Specified Actions January 2025 Survey Responses

How likely is it that you . . .



Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants.

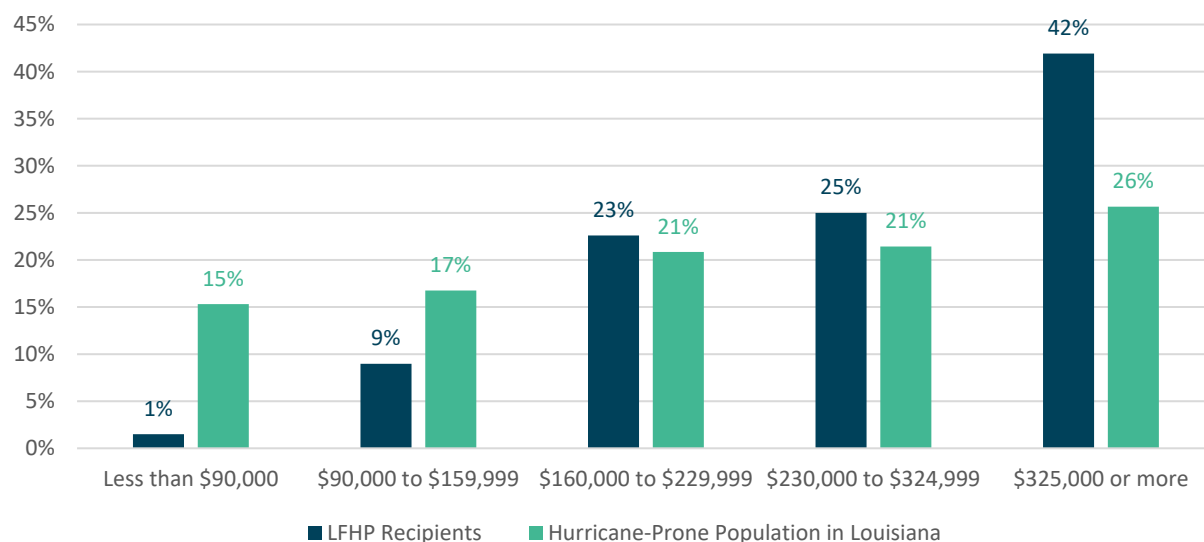
Question 5. Are low-to-moderate income households able to benefit from LFHP?

Although very low-income households, with home values less than \$90,000, are underrepresented in the program, the program is able to reach homeowners in the middle of the wealth distribution. Homeowners with very low home values, less than \$90,000, accounted for 15% of the home-owning population in the hurricane-prone, southern portion of Louisiana in the 2023 American Community Survey, but they were 1% of the population who responded to our survey.^{27,28} Exhibit 18 shows the home values of LFHP recipients who responded to our survey versus the total distribution of home values in the hurricane-prone region of South Louisiana.

²⁷ Research on survey non-response bias indicates that very low-income individuals often have lower response rates than individuals in higher income brackets. However, when we re-weighted the survey responses based on ZIP codes to match the distribution in the entire population of LFHP grant recipients, we obtained the same 1% figure. LDI officials noted that LMI homeowners may be less computer-savvy and could also have lower response rates for this reason.

²⁸ Although these figures are based on self-reported home values from homeowners, both surveys use self-reported information and would be equally affected by any potential bias from self-reporting. We adjusted the values in the 2023 ACS upward by 2% based on the increase in the Federal Housing Finance Agency's Louisiana House Price Index from its 2023 average to the latest available figure, the third quarter of 2024, to make the figures more comparable to the January 2025 survey responses.

Exhibit 18
Home Values of LFHP Recipients and Hurricane-Prone Population
January 2025 Survey Responses



Note: Excludes the 4% of survey respondents who declined to respond with their home value.

Source: Prepared by legislative auditor's staff using self-reported information from a survey of LFHP participants and analysis of information from the U.S. Census Bureau.

According to stakeholders we met with who serve LMI households, the fact that most re-roofing projects cost more than the \$10,000 LFHP grant amount, and that homeowners in flood zones must obtain flood insurance in order to participate, pose significant obstacles for many homeowners in the lowest wealth bracket. Even among those with homes valued at less than \$160,000, 75% reported that they had to pay \$1,000 or more out of pocket to get a FORTIFIED Roof. In some cases, even the \$500 for the evaluation fee is unaffordable. Many LMI homeowners must arrange for additional repairs in order to meet the FORTIFIED Roof requirements, such as replacing dry-stack masonry or rotted roof decking, which further drives up the cost beyond what the homeowner is able to afford. Some stakeholders cited the requirement for LFHP recipients to have a homestead exemption as a barrier for homeowners without clear title. In addition, stakeholders noted that many grant programs allow for organizations involved in administering the grant to receive an administrative fee for their role in delivering the service, but that LDI does not allow for these types of administrative fees. As another example, the Federal Home Loan Bank of Dallas allows up to 10% of the grant amount to be used for the intermediaries' costs in administering its grant program (described further on pp. 31-32).

The Legislature has enacted legislation to enhance cooperation between LDI and other governmental and non-governmental organizations through the passage of Act 533 of 2024, which allows LDI to use cooperative endeavor agreements to administer LFHP grants and to pay for evaluator fees with grant dollars. LDI has partnered with community service organizations in an effort to help more LMI homeowners participate. According to LDI, the goal of its partnerships with other

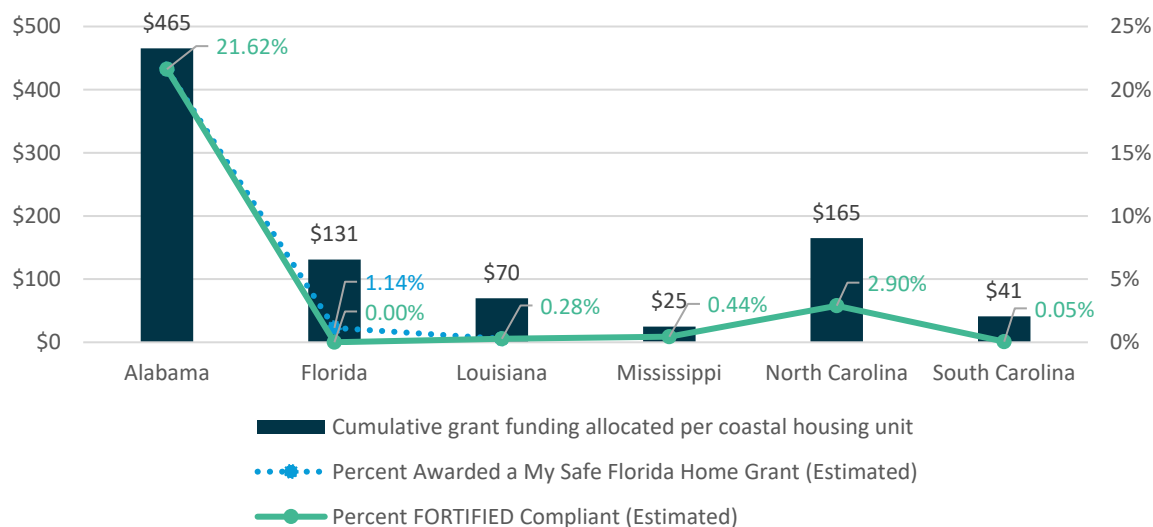
organizations is to leverage other grant programs such as the Federal Home Loan Bank of Dallas's FORTIFIED grant program, federal funding, and private philanthropic dollars in an effort to reach more LMI homeowners. In addition, LDI officials stated that the requirement for a homestead exemption was important as an official record showing that the residence is owner-occupied, and that they felt that allowing exceptions to the homestead exemption requirement was unwarranted. We found that 5% of those who responded to our survey saying that they did not upgrade to a FORTIFIED Roof cited the homestead exemption requirement for LFHP as a reason for why they were unable to do so.

Question 6. How does Louisiana's FORTIFIED grant program, LFHP, compare to similar grant programs in neighboring states?

Six southeastern coastal states (including Louisiana) offer a homeowner grant program related to wind mitigation, but Louisiana's cumulative funding appropriated for these grants was the third lowest amount relative to the amount of housing stock it has in hurricane-prone areas. The three states with the largest wind-mitigation grant programs are Alabama, Florida, and North Carolina, and these are also the states with more widespread incorporation of FORTIFIED-level construction methods into their housing stock. Louisiana's program, first funded in FY 2023, is the second newest, behind Mississippi. Exhibit 19 shows state wind-mitigation grant funding and FORTIFIED certificates relative to the number of hurricane-prone housing units in each state.²⁹

²⁹ We define areas as hurricane-prone based on whether they lie within the "wind design required" region in Figure R301.2.1.1 in the 2021 IRC. We intersected this region with public use microdata areas in the American Community Survey to estimate the number of owner-occupied housing units in the wind design required region, excluding housing units consisting of boats, RVs, and vans.

Exhibit 19 Wind-Mitigation Grants and FORTIFIED Adoption, by State Cumulative through 2024*



* FORTIFIED Designations are through April 2024, except for Louisiana which is as of February 1, 2025. Spending amounts are based on the latest available data. Spending amounts are adjusted for inflation to Louisiana state fiscal year 2024.

Note: Coastal housing units in this exhibit exclude those consisting of boats, RVs, and vans.

Source: Prepared by legislative auditor's staff using information from state insurance agencies, state laws, IBHS, and the U.S. Census Bureau.

Alabama has the highest level of grants and number of FORTIFIED designations relative to the number of housing units it has situated in hurricane-prone areas. Specifically, through the Strengthen Alabama Homes program, the state has allocated \$106 million in grants since FY 2016 (adjusted for inflation). The state's 49,162 FORTIFIED designations as of April 2024 were the highest of any state, both in absolute terms and relative to the number of housing units it has in hurricane-prone areas.

Florida, the most natural disaster-prone state in the U.S., was an early adopter of state funding for wind mitigation with the My Safe Florida Home Program (MSFH). The program is not based on IBHS's FORTIFIED program, but instead provides inspections and grants for homes built prior to 2008 to be retrofitted with improvements that are components of the FORTIFIED standards.³⁰ MSFH received \$250 million in funding for the state's 2007 fiscal year, but it received no new appropriations for 15 years until it received more funding in fiscal years 2023 through 2025. The Florida Chief Financial Officer reported that the program had awarded \$576 million in grants as of October 2024, which we estimate would have

³⁰ Examples of improvements covered by the program include roof-deck attachments and secondary water resistance (FORTIFIED Roof), opening protection (FORTIFIED Silver), and roof-wall connections (FORTIFIED Gold).

equated to \$674 million adjusted for inflation to 2024.³¹ According to the Florida Department of Insurance, the average insurance discount reported by homeowners who completed the program was \$981 per year.³² There is also a separate My Safe Florida Condo pilot program that was allocated \$30 million for fiscal year 2025, which provides similar grants for condominium associations to make wind mitigation improvements. Few Florida homeowners have obtained FORTIFIED designations, but the Florida Building Code sets a high standard for construction and in many ways mirrors the requirements of FORTIFIED, and we estimate that 29% of the currently standing homes in Florida were built after the Florida Building Code went into effect in 2002. Certain counties in Florida have even stricter standards.

North Carolina's grant programs, the Strengthen Your Roof and Strengthen Your Coastal Roof programs, are distinct from other states' in that they derive their funding from the state's insurer of last resort for coastal properties, the North Carolina Insurance Underwriting Association (NCIUA). NCIUA is organized as a non-profit organization and concluded that paying homeowners to invest in wind mitigation would return savings to the organization in the form of lower average annual losses and reinsurance costs. From the program's inception in 2019 through September 2024, North Carolina had invested \$61 million (adjusted for inflation) and had 10,644 homes certified as FORTIFIED as of April 2024.

Louisiana's grant program is structured similarly to how other states structure their programs. Louisiana's maximum grant amount is \$10,000, which is the most common among other states. Only two of the states require a dollar-for-dollar or proportional match (Florida and South Carolina); Louisiana and the remaining three states require the homeowner to cover the remainder of the cost not covered by the \$10,000 grant. Exhibit 20 provides a comparison of wind mitigation programs across states.

³¹ The press release also noted that the entire \$576 million in grant funding had not been disbursed, and only \$190 million in home hardening grant reimbursements had been made as of October 2024. Exhibit 19 uses the \$674 million in grant funding divided by 5,150,406 coastal housing units.

³² Florida Senate Staff Bill Analysis and Fiscal Impact Statement, CS/SB 7028, 2024 session, dated January 31, 2024.

Exhibit 20 Comparison of State Wind Mitigation Incentive Programs				
State	Program	Requirements for Work	Maximum Grant Amount	Match Requirement
Alabama	Strengthen Alabama Homes	FORTIFIED Roof or higher	\$10,000	All costs exceeding \$10,000
Florida	My Safe Florida Home	State defined wind-mitigation techniques	\$10,000	\$2 state per \$1 homeowner; no match for low-income homeowners
Louisiana	Louisiana Fortify Homes	FORTIFIED Roof or higher	\$10,000	All costs exceeding \$10,000
Mississippi	Strengthen Mississippi Homes	FORTIFIED Roof or higher	\$10,000	All costs exceeding \$10,000
North Carolina*	Strengthen Your Roof/Strengthen Your Coastal Roof	FORTIFIED Roof or higher	\$6,000 (\$10,000 in Outer Banks)	All costs exceeding \$6,000 (\$10,000 in Outer Banks)
South Carolina	South Carolina Safe Home	FORTIFIED Roof or state-defined wind mitigation techniques	\$6,000 (\$7,500 for low income)	\$1 state per \$1 homeowner (no match for low-income)
<p>* North Carolina's program is offered through the North Carolina Insurance Underwriting Association, a state-sponsored non-profit insurer serving the residual market. Source: Prepared by legislative auditor's staff using information from state insurance departments/agencies.</p>				

Besides LDI, other federal, state, and local entities in Louisiana are promoting FORTIFIED Roofs. In many cases, these are grant programs funded by federal grants. While this is not an exhaustive list, we identified programs underway at the federal, state, and local level in Louisiana to promote wind mitigation and specifically the FORTIFIED program.

- Federally-Sponsored Entities.** The Federal Home Loan Bank of Dallas (FHLB) operates a grant program for retrofits or new construction of roofs that meet the FORTIFIED Roof standard. The maximum grant amount is \$15,000 for retrofits, or \$7,500 for new construction. The grant is administered through FHLB member banks (e.g., Metairie Bank). FHLB has allocated a total of \$25.75 million during calendar years 2023 through 2025, of which \$15.75 million is for homeowners, and \$10 million is for rental properties. FHLB serves five states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. FHLB's grant program is limited to homeowners whose income is less

than 120% of the median income in their area.

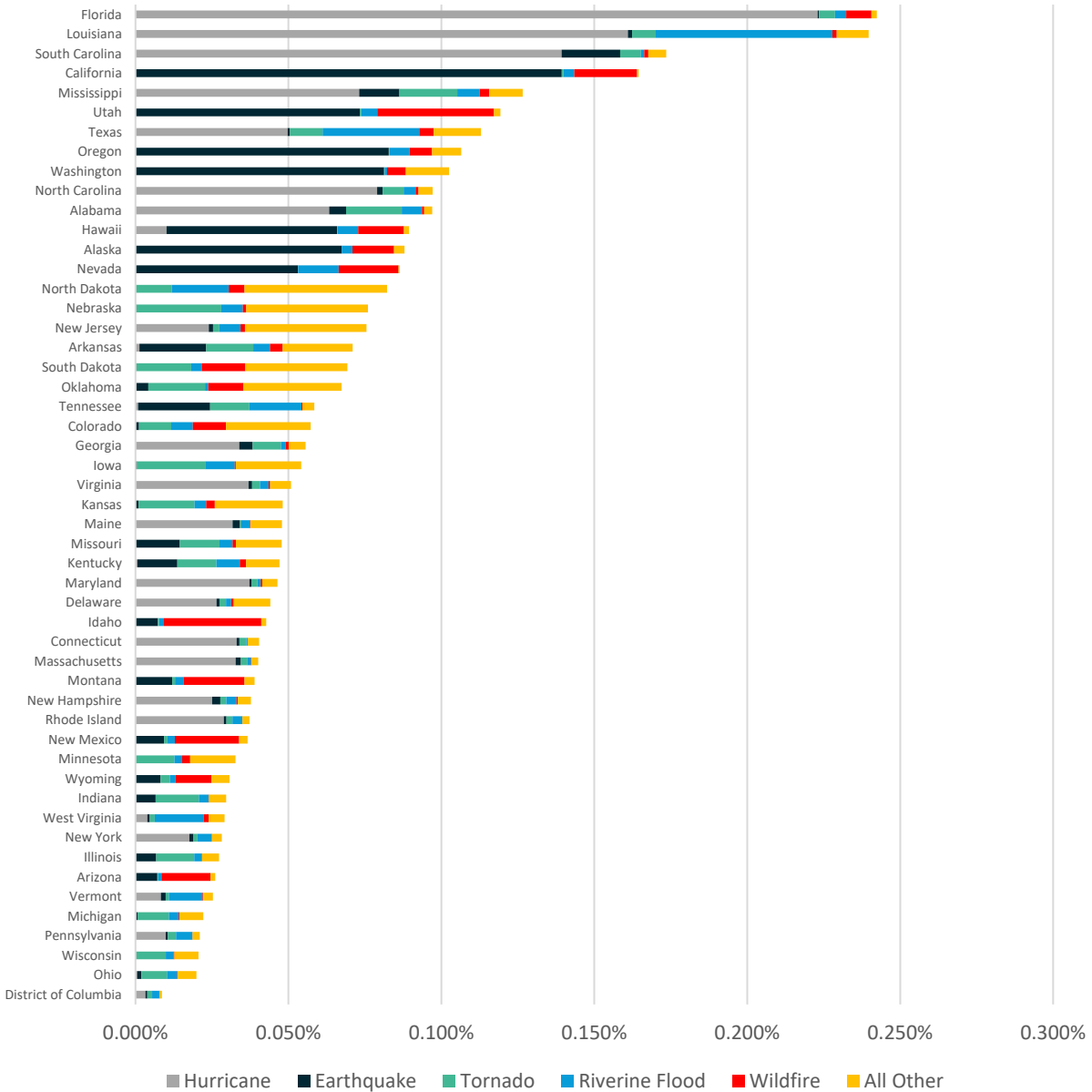
- **State.** Officials from the Office of Community Development (OCD) reported that they supported the construction of 7,178 units that met the FORTIFIED requirements since the 2020 and 2021 hurricane seasons. The majority of these were multi-family units,³³ with 5,197 units funded through the Piggyback Resilience Initiative-Mixed Income program, with \$558 million in federal Community Development Block Grant Disaster Recovery (CDBG-DR) funding. In addition, OCD funded repairs or construction impacting 1,539 single-family units through the Restore Louisiana Homeowner Program (RLHP), utilizing \$311 million in CDBG-DR funding. Under RLHP, the homeowner could opt for a new-construction home built to the FORTIFIED Gold standard, or could opt to manage the repairs themselves, in which case the costs of repairing and retrofitting to the FORTIFIED standard would be allowable costs.
- **Local.** Several parishes have programs to provide grants to individual homeowners for wind mitigation, including Jefferson and Orleans, which have collectively allocated \$1.75 million for FORTIFIED Roofs, both using federal funds.

The presence of overlapping federal, state, and local programs creates the potential for a single project to have multiple sources of funding. This can be advantageous for low-income homeowners who may be able to qualify for more than one grant and thereby piece together enough funding to pay for the entire cost of their FORTIFIED Roof upgrade. However, the multiplicity of programs also necessitates vigilance on the part of grant administrators to ensure against duplication of benefits, which would occur if a recipient received more in grant funding than the actual cost of the project. Toward this end, LDI adopted regulations³⁴ in October 2024 requiring homeowners to disclose all sources of funding that they have received to pay for their FORTIFIED Roof retrofit. LDI officials stated that this formalized an existing policy. In addition, FHLB requires FORTIFIED Fund recipients to list all sources of funds for their FORTIFIED Roof project.

³³ FORTIFIED Multifamily designations can include multiple units that are counted as a single designation or certificate in the table in Appendix C.

³⁴ LAC 37:XIII.18205(H), LR 50:1501.

APPENDIX A: EXPECTED ANNUAL DISASTER LOSSES AS A PERCENTAGE OF BUILDING VALUES BY STATE AND DISASTER TYPE As of March 2023

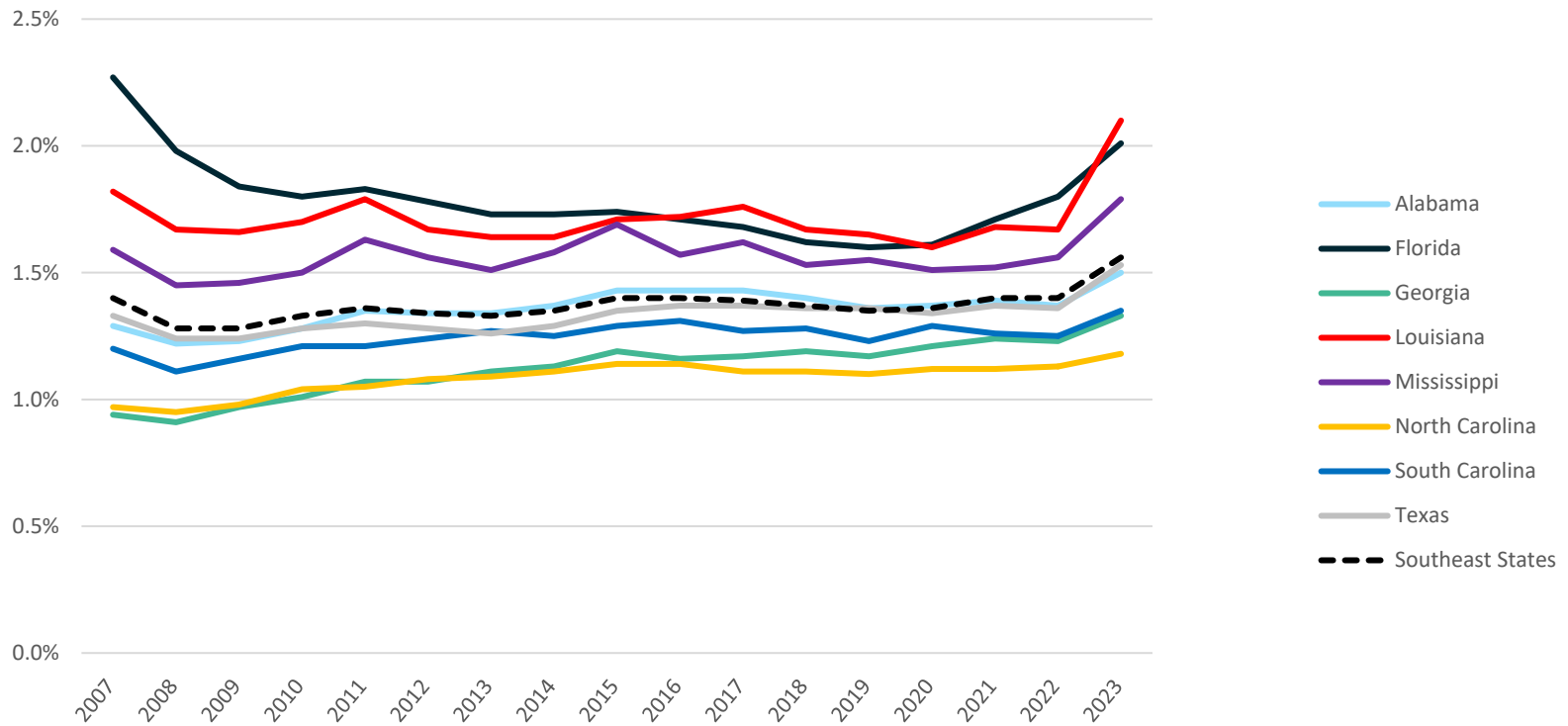


Note: Although Louisiana has experienced losses historically due to levee failures, this category of disaster was excluded from FEMA’s National Risk Index.

Source: Prepared by legislative auditor’s staff using data from FEMA’s National Risk Index.

APPENDIX B: AFFORDABILITY OF HOMEOWNER'S INSURANCE IN SOUTHEASTERN COASTAL STATES

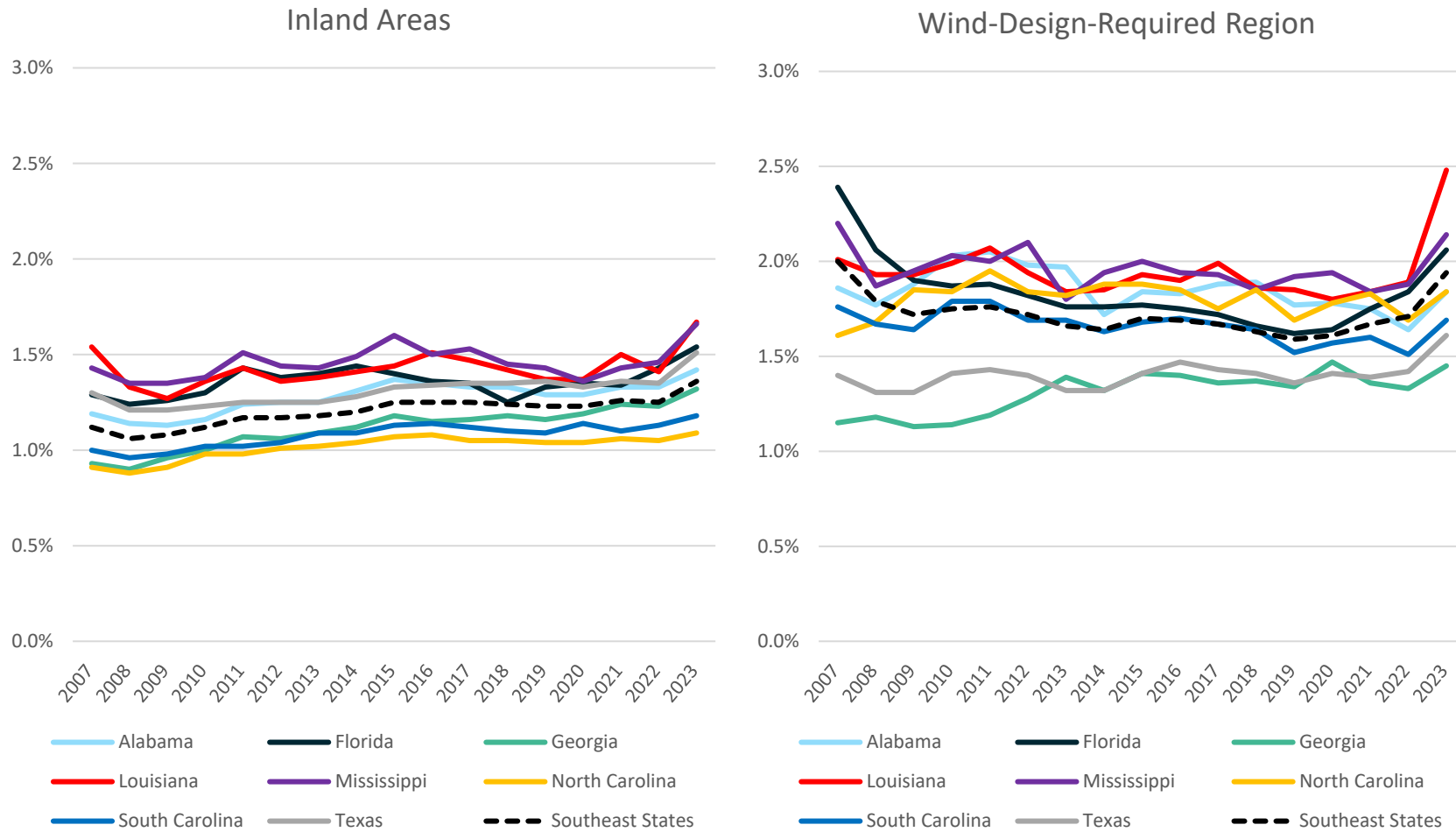
Exhibit B.1
Median Percentage of Household Income Spent on Homeowners and Flood Insurance
CYs 2007 through 2023



Note: Includes owner-occupied units and excludes mobile homes, boats, RVs, and vans.

Source: Prepared by legislative auditor's staff using information from the U.S. Census Bureau.

Exhibit B.2
Homeowner’s Insurance Spending as a Percentage of Household Income
Medians for Inland versus Wind-Design-Required Region
CYs 2007 through 2023



Note: Includes owner-occupied units and excludes mobile homes, boats, RVs, and vans.
Source: Prepared by legislative auditor’s staff using information from the U.S. Census Bureau.

Exhibit B.3
Housing Units in Wind-Design Required Region among Coastal States
CY 2023

State	Number of Housing Units in Wind Design-Required Region	Number of Housing Units Not in Wind Design-Required Region	Total Number of Housing Units	Percentage of Housing Units in Wind Design-Required Region
Alabama	227,400	1,037,082	1,264,482	17.98%
Florida	5,150,406	429,315	5,579,721	92.31%
Georgia	168,734	2,375,491	2,544,225	6.63%
Louisiana	677,070	412,461	1,089,531	62.14%
Mississippi	201,475	506,003	707,478	28.48%
North Carolina	367,640	2,257,985	2,625,625	14.00%
South Carolina	514,477	857,199	1,371,676	37.51%
Texas	1,691,668	4,846,791	6,538,459	25.87%
Total	8,998,870	12,722,327	21,721,197	41.43%

Note: Housing unit counts include owner-occupied units and exclude mobile homes, boats, RVs, and vans.

Source: Prepared by legislative auditor's staff using information from the U.S. Census Bureau.

APPENDIX C: NUMBER OF FORTIFIED CERTIFICATES BY PRODUCT AND LEVEL As of February 1, 2025

Product	Level	Total Certificates	LFHP-Funded Certificates	Non LFHP-Funded Certificates
FORTIFIED Home	Roof	4,576	1,838	2,738
	Silver	3	0	3
	Gold	623	0	623
	Total	5,202	1,838	3,364
FORTIFIED Multifamily	Roof	0	0	0
	Silver	39	0	39
	Gold	172	0	172
	Total	211	0	211
All Products	Roof	4,576	1,838	2,738
	Silver	42	0	42
	Gold	795	0	795
	Total	5,413	1,838	3,575

Source: Prepared by legislative auditor's staff using information from IBHS.

APPENDIX D: LFHP HOMEOWNER SURVEY METHODOLOGY, QUESTIONS, AND RESPONSES

We emailed a survey to all LFHP applicants with a status of “approved” or “denied” (excluding those whose status was “pending”). This gave us 3,257 unique email addresses. Survey responses were collected over the internet through SurveyMonkey from January 7 through January 23, 2025. We received a total of 761 responses. SurveyMonkey saves a cookie in the user’s browser to prevent the survey from being taken twice on the same browser and device. We screened further for duplicates by removing responses with the same IP address and ZIP code as a previous response (eliminating 6 observations). We also removed responses with ZIP codes that were not assigned to a location in Louisiana (eliminating 5 observations) or that included no ZIP code (eliminating 56 observations). We were left with 694 valid, unique survey responses. The remainder of this appendix includes the wording used for each question and the available responses to select, along with a summary of the responses received (Toplines). Skip logic was used to show only relevant questions to each respondent, as denoted in blue text in parentheses prior to each response summary table.

Survey Wording and Toplines

1. Why did you want a FORTIFIED Roof? Check all that apply.

(Asked all)

Response	Number	Percent
Roof was damaged and/or leaking, or would have leaked without a tarp	109	15.71%
Roof was old and at the end of its useful life and needed to be replaced	366	52.74%
Wanted additional peace of mind/security from having a stronger roof	398	57.35%
Could not obtain homeowners insurance (other than from Louisiana Citizens) without getting a new roof	126	18.16%
Wanted to reduce cost of homeowner’s insurance	515	74.21%
Wanted to make roof more visually attractive	59	8.50%
Wanted to increase resale value of home	141	20.32%
Other	19	2.74%
Number of responses	694	

2. How did you find out about the FORTIFIED Roof program? Check all that apply

(Asked all)

Response	Number	Percent
News outlets (TV, radio, newspaper, news websites, official social media pages)	528	76.08%
Friends, family, or neighbors	153	22.05%
Roofers or other construction/repair businesses	39	5.62%
Insurance agent or representative	47	6.77%
Non-profits, churches, or other non-governmental community service groups	14	2.02%
A friend from grad school works for IBHS.	1	0.14%
Department of Insurance media blasts	1	0.14%
Other	31	4.68%
Number of responses	694	

3. Who is/are your current homeowner's insurance carrier(s) for your primary residence? Please select all carriers that you are covered by if you have separate insurance policies that cover wind, hail, or other perils for your primary residence. You do not need to include your flood insurance carrier.

(Asked all)

Response	Number	Percent
Allied Trust	27	3.89%
Allstate	80	11.53%
Liberty	6	0.86%
Louisiana Citizens Property Insurance Corporation	215	30.98%
Louisiana Farm Bureau	21	3.03%
Progressive	18	2.59%
Safeco	11	1.59%
State Farm	57	8.21%
Surechoice Underwriters Reciprocal Exchange (SageSure)	110	15.85%
United Services Automobile Association (USAA)	35	5.04%
Not insured	5	0.72%
Unsure	26	3.75%
Other	158	22.77%
Number of responses	694	

4. Approximately how much do you currently spend in total each year on premiums for homeowner's insurance on your primary residence? If possible, please do not include your flood insurance premium.

(Asked all)

Response	Number	Percent
Less than \$500	2	0.29%
\$500 to \$749	5	0.72%
\$750 to \$999	2	0.29%
\$1,000 to \$1,249	9	1.30%
\$1,250 to \$1,499	7	1.01%
\$1,500 to \$1,749	17	2.45%
\$1,750 to \$1,999	21	3.03%
\$2,000 to \$2,249	16	2.31%
\$2,250 to \$2,499	20	2.88%
\$2,500 to \$2,749	24	3.46%
\$2,750 to \$2,999	25	3.60%
\$3,000 to \$3,249	36	5.19%
\$3,250 to \$3,499	31	4.47%
\$3,500 to \$3,749	42	6.05%
\$3,750 to \$3,999	34	4.90%
\$4,000 to \$4,249	34	4.90%
\$4,250 to \$4,499	29	4.18%
\$4,500 to \$4,749	20	2.88%
\$4,750 to \$4,999	21	3.03%
\$5,000 to \$5,499	32	4.61%
\$5,500 to \$5,999	35	5.04%
\$6,000 to \$6,499	37	5.33%
\$6,500 to \$6,999	34	4.90%
\$7,000 to \$7,499	20	2.88%
\$7,500 to \$7,999	23	3.31%
\$8,000 to \$8,499	23	3.31%
\$8,500 to \$8,999	20	2.88%
\$9,000 to \$9,499	7	1.01%
\$9,500 to \$9,999	6	0.86%
\$10,000 or more	52	7.49%
Unsure	10	1.44%
Number of responses	694	100.00%

5. Does the amount that you provided in response to question 4 include flood insurance?

(Asked all)

Response	Number	Percent
Yes	32	4.61%
No, and I do not have flood insurance	150	21.61%
No, but I do have flood insurance	500	72.05%
Unsure	12	1.73%
Number of responses	694	100.00%

6. Did you upgrade the roof on your primary residence to the FORTIFIED Roof standard or higher (Silver or Gold)?

(Asked all)

Response	Number	Percent
Yes	480	69.16%
No	174	25.07%
Unsure	40	5.76%
Number of responses	694	100.00%

7. Before you upgraded your roof to the FORTIFIED standard, who was your homeowner's insurance carrier for your primary residence? Please select all that apply if you have additional, separate insurance policies that cover wind, hail, or other perils for your primary residence. You do not need to include your flood insurance carrier.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Allied Trust	13	2.71%
Allstate	58	12.08%
Liberty	4	0.83%
Louisiana Citizens Property Insurance Corporation	213	44.38%
Louisiana Farm Bureau	13	2.71%
Progressive	10	2.08%
Safeco	6	1.25%
State Farm	40	8.33%
Surechoice Underwriters Reciprocal Exchange (SageSure)	36	7.50%
United Services Automobile Association (USAA)	25	5.21%
Unsure	11	2.29%
Not insured	1	0.21%
Other	106	22.08%
Number of responses	480	

8. Before you upgraded the roof on your primary residence to the FORTIFIED standard, approximately how much was your total annual premium for homeowner's insurance on your primary residence? If possible, please do not include your flood insurance premium.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Less than \$500	2	0.42%
\$750 to \$999	5	1.04%
\$1,000 to \$1,249	3	0.63%
\$1,250 to \$1,499	3	0.63%
\$1,500 to \$1,749	3	0.63%
\$1,750 to \$1,999	10	2.08%
\$2,000 to \$2,249	12	2.50%
\$2,250 to \$2,499	9	1.88%
\$2,500 to \$2,749	12	2.50%
\$2,750 to \$2,999	9	1.88%
\$3,000 to \$3,249	21	4.38%
\$3,250 to \$3,499	14	2.92%
\$3,500 to \$3,749	17	3.54%
\$3,750 to \$3,999	14	2.92%
\$4,000 to \$4,249	12	2.50%
\$4,250 to \$4,499	17	3.54%
\$4,500 to \$4,749	16	3.33%
\$4,750 to \$4,999	12	2.50%
\$5,000 to \$5,499	32	6.67%
\$5,500 to \$5,999	28	5.83%
\$6,000 to \$6,499	34	7.08%
\$6,500 to \$6,999	22	4.58%
\$7,000 to \$7,499	16	3.33%
\$7,500 to \$7,999	23	4.79%
\$8,000 to \$8,499	22	4.58%
\$8,500 to \$8,999	14	2.92%
\$9,000 to \$9,499	10	2.08%
\$9,500 to \$9,999	13	2.71%
\$10,000 or more	70	14.58%
Unsure	5	1.04%
Number of responses	480	100.00%

9. Does the amount that you provided in response to question 4 include flood insurance?

Note: Due to a typographical error, the survey wording for this question referred to question 4, when it should have referred to question 8 (the previous question). Responses to questions 8 and 9 were used to corroborate self-reported savings in question 10 and are not used directly in our analysis.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Yes	16	3.33%
No, and I did not have flood insurance	75	15.63%
No, but I did have flood insurance	384	80.00%
Unsure	5	1.04%
Number of responses	480	100.00%

10. Approximately how much less do you spend each year on homeowner's insurance for your primary residence because you got a FORTIFIED Roof? Indicate your best estimate of how much you saved on insurance. For example, this could include the FORTIFIED or wind mitigation discount you received from your insurance carrier, savings from having a newer roof, as well as savings if you were able to switch to a less expensive insurance carrier after getting a new roof.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
\$0 to \$99	66	13.75%
\$100 - \$249	19	3.96%
\$250 - \$499	27	5.63%
\$500 - \$749	32	6.67%
\$750 - \$999	37	7.71%
\$1,000 - \$1,499	53	11.04%
\$1,500 - \$1,999	52	10.83%
\$2,000 or more	121	25.21%
Getting a FORTIFIED Roof has made my insurance more expensive	16	3.33%
Unsure	57	11.88%
Number of responses	480	100.00%

11. Before you got a FORTIFIED Roof for your primary residence, approximately how long had your previous roof been in place?

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Less than 5 years	20	4.17%
5 to 9 years	40	8.33%
10 to 14 years	109	22.71%
15 to 19 years	208	43.33%
20 to 29 years	68	14.17%
30 years or more	9	1.88%
Unsure	26	5.42%
Number of responses	480	100.00%

12. What was the total cost for you to get a roof at your primary residence that meets the FORTIFIED Roof standard? Please include all costs, including the amounts you paid out of pocket as well as the amounts that were paid with grants or an insurance claim. Include the total cost of labor and materials for the roofer and evaluator. If you also had to hire architects, engineers, or additional contractors to upgrade your roof, include their cost as well.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Less than \$5,000	11	2.29%
\$5,000 to \$7,499	4	0.83%
\$7,500 to \$9,999	13	2.71%
\$10,000 to \$12,499	62	12.92%
\$12,500 to \$15,000	92	19.17%
\$15,000 to \$17,499	64	13.33%
\$17,500 to \$19,999	59	12.29%
\$20,000 or more	171	35.63%
Unsure	4	0.83%
Number of responses	480	100.00%

13. Approximately how much did you have to pay out of pocket for your FORTIFIED Roof at your primary residence? Please select the amount that you had to pay for out of your own personal funds, and that was not paid for with grants or an insurance claim.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
\$0	16	3.33%
\$1 to \$999	38	7.92%
\$1,000 to \$2,499	40	8.33%
\$2,500 to \$4,999	94	19.58%
\$5,000 to \$9,999	129	26.88%
\$10,000 or more	159	33.13%
Unsure	4	0.83%
Number of responses	480	100.00%

14. Did you receive a Louisiana Fortify Homes Program grant from the Louisiana Department of Insurance?

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Yes	454	94.58%
No	8	1.67%
Unsure	18	3.75%
Number of responses	480	100.00%

15. How much was your FORTIFIED Roof grant from the Department of Insurance's Louisiana Fortify Homes Program?

(Asked if responded "Yes" to questions 6 and 14)

Response	Number	Percent
Less than \$5,000	3	0.66%
\$5,000 to \$7,499	1	0.22%
\$7,500 to \$9,999	10	2.20%
\$10,000	440	96.70%
Unsure	1	0.22%
Number of responses	455*	100.00%

* The total number of responses to this question is 455 instead of 454 because one respondent who answered "no" to question 14 was shown questions 15 and 16, despite skip logic that should have caused this person to be asked question 17 instead. We included this person's responses as recorded.

16. How likely is it that you would have upgraded to a FORTIFIED Roof for your primary residence between 2023 and the present, under the following circumstances?

If you had not received a Louisiana Fortify Homes Program grant

(Asked if responded "Yes" to questions 6 and 14)

Response	Number	Percent
Definitely no	158	34.73%
Probably no	167	36.70%
Maybe	75	16.48%
Probably yes	38	8.35%
Definitely yes	17	3.74%
Number of responses	455	100.00%

If the maximum amount of the Louisiana Fortify Homes Program grant was only \$8,000 (instead of \$10,000)

(Asked if responded "Yes" to questions 6 and 14)

Response	Number	Percent
Definitely no	51	11.26%
Probably no	54	11.92%
Maybe	135	29.80%
Probably yes	140	30.91%
Definitely yes	73	16.11%
Number of responses	453	100.00%

17. Why did you not receive a Louisiana Fortify Homes Program grant? Check all that apply.

(Asked if responded "Yes" to question 6 and "No" to question 14)

Response	Number	Percent
Did not win lottery for a grant, or all grants were awarded before I could apply.	2	7.69%
Preferred roofing contractor was not participating in the grant program.	1	3.85%
Other	3	11.54%
None of the above	21	80.77%
Number of responses	26	100.00%

18. Besides your own personal funds and grants from the Louisiana Fortify Homes Program, what additional sources of funds did you use to pay for the total cost of the FORTIFIED Roof upgrade at your primary residence? Check all that apply.

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Other government grants (e.g., Restore Louisiana, FEMA, HUD, parish/municipal community development office, but not Louisiana Fortify Homes Program)	11	2.29%
Non-profit assistance (e.g., Rebuilding Together New Orleans, Habitat for Humanity, People Housing Plus, or other community organizations)	3	0.63%
Insurance proceeds	26	5.42%
Other	41	8.54%
None of the above	400	83.33%
Number of responses	480	

19. Overall, how satisfied were you with the following:

Getting quotes from roofers and arranging for the roofer to do the necessary work

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Very dissatisfied	23	4.81%
Somewhat dissatisfied	19	3.97%
Neutral	37	7.74%
Somewhat satisfied	138	28.87%
Very satisfied	261	54.60%
Number of responses	478	100.00%

The finished roof

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Very dissatisfied	17	3.62%
Somewhat dissatisfied	7	1.49%
Neutral	15	3.19%
Somewhat satisfied	57	12.13%
Very satisfied	374	79.57%
Number of responses	470	100.00%

The availability of homeowner's insurance after you obtained a FORTIFIED Roof

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Very dissatisfied	69	14.41%
Somewhat dissatisfied	44	9.19%
Neutral	117	24.43%
Somewhat satisfied	90	18.79%
Very satisfied	159	33.19%
Number of responses	479	100.00%

The affordability of homeowner's insurance after you obtained a FORTIFIED Roof

(Asked if responded "Yes" to question 6)

Response	Number	Percent
Very dissatisfied	99	20.63%
Somewhat dissatisfied	80	16.67%
Neutral	80	16.67%
Somewhat satisfied	115	23.96%
Very satisfied	106	22.08%
Number of responses	480	100.00%

20. If you did not upgrade the roof on your primary residence to the FORTIFIED Roof standard, have you repaired or replaced the roof at all between 2023 and the present?

(Asked if responded "No" to question 6)

Response	Number	Percent
No, no roof work was done	144	66.67%
Yes, had roof work done, but unsure how much was replaced or repaired	11	5.09%
Yes, repaired or replaced less than half of the roof	6	2.78%
Yes, replaced entire roof or more than half of the roof	38	17.59%
Unsure	17	7.87%
Number of responses	216	100.00%

21. Why did you not upgrade the roof on your primary residence to the FORTIFIED Roof standard? Check all that apply.

(Asked if responded "No" to question 6)

Response	Number	Percent
Did not win lottery for a grant, or all grants were awarded before I could apply.	44	20.56%
Was not eligible because of homestead exemption requirement.	10	4.67%
Was not eligible for other reasons besides homestead exemption requirement.	29	13.55%
Preferred roofing contractor was not participating in the grant program.	13	6.07%
Was not able to use grant within time limit.	27	12.62%
Completed work without hiring contractor (do-it-yourself/DIY, or got help from friends, family, or volunteers).	1	0.47%
Sold house and/or moved to a different house.	2	0.93%
Out-of-pocket expenses (not covered by grants/non-profits) were too high.	68	31.78%
Additional repairs to foundation, carport, or other parts of the house besides the roof were needed to meet the FORTIFIED standard.	7	3.27%
Was able to obtain affordable insurance without getting a FORTIFIED Roof.	4	1.87%
The FORTIFIED Roof or wind mitigation discounts on insurance were too small to justify the investment.	16	7.48%
Other	93	43.46%
Number of responses	214	

22. If the maximum amount of the Louisiana Fortify Homes Program grant had been increased from \$10,000 to \$12,500 and expanded to cover the evaluation fee, so that your out-of-pocket cost would have been \$2,500 less, what is the likelihood that you would have gotten a FORTIFIED Roof for your primary residence?

(Asked if responded "No" to question 6)

Response	Number	Percent
Definitely no	19	8.88%
Probably no	22	10.28%
Maybe	26	12.15%
Probably yes	61	28.50%
Definitely yes	86	40.19%
Number of responses	214	100.00%

23. If you obtained quotes from roofers to upgrade your roof to the FORTIFIED Roof standard, how much would the project have cost (based on the quote from your preferred roofer, or the lowest priced roofer if you had no other preference)?

(Asked if responded "No" to question 6)

Response	Number	Percent
Less than \$10,000	10	4.67%
\$10,000 to \$12,499	17	7.94%
\$12,500 to \$15,000	29	13.55%
\$15,000 to \$19,999	32	14.95%
\$20,000 or more	53	24.77%
Did not obtain quotes	60	28.04%
Unsure	13	6.07%
Number of responses	214	100.00%

24. How likely are you to apply for a Louisiana Fortify Homes Program grant in the next five years, if the program is still in operation and you are eligible?

(Asked if responded "No" to question 6)

Response	Number	Percent
Definitely no	19	8.88%
Probably no	26	12.15%
Maybe	37	17.29%
Probably yes	34	15.89%
Definitely yes	98	45.79%
Number of responses	214	100.00%

25. When you were deciding whether to get a FORTIFIED Roof, how clear and easy to understand was the information that was available to you about how much you could save on your homeowner's insurance by upgrading to a FORTIFIED Roof?

(Asked all)

Response	Number	Percent
Very unclear (very difficult to understand)	126	18.18%
Somewhat unclear (somewhat difficult to understand)	127	18.33%
Neutral	82	11.83%
Somewhat clear (somewhat easy to understand)	158	22.80%
Very clear (very easy to understand)	175	25.25%
Don't know/Not applicable	25	3.61%
Number of responses	693	100.00%

26. Overall, how satisfied were you with applying for a Louisiana Fortify Homes Program grant?

(Asked all)

Response	Number	Percent
Very dissatisfied	63	9.08%
Somewhat dissatisfied	47	6.77%
Neutral	69	9.94%
Somewhat satisfied	148	21.33%
Very satisfied	367	52.88%
Number of responses	694	100.00%

27. If a friend or family member needed a new roof, how likely would you be to encourage them to apply for a Louisiana Fortify Homes Program grant?

(Asked all)

Response	Number	Percent
Definitely no	22	3.17%
Probably no	23	3.31%
Maybe	64	9.22%
Probably yes	101	14.55%
Definitely yes	478	68.88%
Unsure	6	0.86%
Number of responses	694	100.00%

28. What is your 5-digit ZIP code?
(responses aggregated below by parish)

(Asked all)

Response	Number	Percent
Orleans	262	37.75%
Jefferson	181	26.08%
St. Tammany	128	18.44%
East Baton Rouge	31	4.47%
St. Bernard	13	1.87%
Terrebonne	8	1.15%
Ascension	7	1.01%
Tangipahoa	6	0.86%
St. John the Baptist	5	0.72%
Calcasieu	5	0.72%
Lafayette	5	0.72%
Other parishes (fewer than 5 per parish)	43	6.20%
Number of responses	694	100.00%

29. How much would you estimate to be the fair market value of your home?

(Asked all)

Response	Number	Percent
Less than \$90,000	10	1.44%
\$90,000 to \$159,999	60	8.65%
\$160,000 to \$229,999	151	21.76%
\$230,000 to \$324,999	167	24.06%
\$325,000 or more	280	40.35%
Unsure/prefer not to say	26	3.75%
Number of responses	694	100.00%

30. Do you have any ideas for how to improve the Louisiana Fortify Homes Program? If so, please include them below.

(Asked all)

(free response)