

Market Incentives Study – Resilient Structures

November 15, 2024

Executive Summary

Texas A&M University of Galveston (TAMUG) was contracted by the Texas Department of Insurance (TDI) to conduct a study of the effects of resilient structures on market incentives for writing windstorm and hail insurance in the 14 Tier 1 coastal counties of Texas and parts of Harris County. The study was conducted in accordance with Texas Insurance Code Section 2210.015.

The study involved developing and administering a voluntary survey of insurers, a review of resilient construction standards including IBHS FORTIFIED™ standards, and scholarly research related to their effectiveness in mitigation losses, economic effects, and public perceptions about them. The study also provided an in-depth review of incentive programs related to resilient retrofits and structural upgrades in states where such programs have already been initiated.

Insurer Survey

The voluntary survey was divided into multiple sections, aiming to cover various aspects of insurers' knowledge, perceptions and opinions regarding the IBHS FORTIFIED Home Standards¹ and other resilient standards for residential homes. It was sent to all insurers writing homeowners (HO) policies in Texas.

The response rate was 30% (23 responders consisting of 48 insurance companies in total), corresponding to 37% of the Texas residential property insurance market based on 2023 premiums written. Notably, a very small percentage (1%) of the responding insurers' current policies with windstorm and hail coverage are written for homes that have IBHS FORTIFIED or other resilient feature certifications (the most common certification is the IBHS Roof standard), which likely reflects the low uptake of IBHS FORTIFIED standards in Tier 1 territories and Texas statewide, with the prevalence of the Roof standard possibly due to its lower cost compared to the Gold and Silver standards.

Survey Results: Support for a resilient home incentives program

- The majority of insurers (57%) indicated either somewhat or strong support for a program to promote IBHS FORTIFIED or other resilient home standards, 17% were neutral on the matter, and 20% were somewhat or strongly unresponsive.
- Most insurers expressed support for a program to provide grants to homeowners to fully or partially cover eligible costs for resilient retrofits. The most common suggested grant amount was \$10,000.
- Fewer than half of insurers, including those supportive of IBHS FORTIFIED and similar standards, are likely to increase the number of homeowners' policies with windstorm and hail coverage they write in Tier 1 counties or statewide.
- Insurers are likely to offer premium discounts in Tier 1 and statewide for resilient features, with the higher percentage in premium indicated for the Gold standard, followed by Silver and Roof.
- Insurers were neutral about establishing a voluntary premium discount benchmark for homes with resilient standards in Tier 1 areas or statewide.
- Most insurers were neutral on offering lower deductibles, with more expressing opposition than support.
- The majority of insurers indicated that they support offering an endorsement option that would cover the additional cost to upgrade non-fortified homes to IBHS FORTIFIED standards when making repairs after significant damage to the home.

¹ For more information about the IBHS FORTIFIED™ standards please refer to the following website:
<https://fortifiedhome.org/solutions/>

Survey Results: Mandatory requirement for premium discounts and endorsement

Insurers were asked whether certain scenarios would change how much they write in Tier 1 or statewide. The hypothetical scenarios were:

1. All insurers are required to provide reasonable premium discounts on policies with windstorm/hail coverage for homes certified with IBHS FORTIFIED standards or featuring resilient elements in Tier 1 counties (or statewide).
 - Most insurers were receptive to reasonable premium discounts for policies covering homes that meet IBHS FORTIFIED or other resilient standards, but they wouldn't increase the number of policies they write.
2. All insurers are required to offer an endorsement that gives homeowners in Tier 1 counties the option to upgrade their non-fortified homes to meet IBHS FORTIFIED or other resilient standards. (Assume the endorsement applies in the event of damage requiring replacement or significant repairs to that part of the home, and that the endorsement is offered for an additional premium).
 - Most insurers would not guarantee to offer windstorm/hail coverage for Tier 1 homes that were repaired to meet those resilient standards.

Survey Results: Summary of insurers' concerns related to the impact that resilient standards may have on their business operations

- Adjusting rates and implementing discounts to capture resilient standards would require substantial time and resources from IT, product, actuarial, and sales teams.
- Insuring FORTIFIED homes or IBHS-certified roofs at a required discount could lead to a loss in premium income, requiring adjustments to rates for all policies.
- The reinsurance market may not adopt the same view on reduced risk from fortified structures.
- Lack of historical data on the effectiveness of fortified structures against severe weather events.

Survey Results: Summary of concerns from unsupportive insurers

- Need to establish comprehensive building codes, ensure their effective enforcement, and regulate the roofing sector to ensure compliance.
- Should standardize inspection and roof construction reports to speed up the review process for determining that resilient features are in place.
- Need to develop a program or underwriting guidelines that include inspections to identify necessary repairs or upgrades.
- Need to understand how the IBHS FORTIFIED or other standards are factored in reinsurance costs.
- Need third-party data and modeling to demonstrate or validate a loss reduction benefit for resilient standards, both on average and in tail events.
- Need to establish additional programs specifically targeting hail damage.

Survey Results: Importance of information about resilient standards and the role of insurers

- Insurers maintain a conservative approach regarding communicating about potential roof upgrades when a loss is paid. Insurers primarily focus on restoring properties to their pre-loss condition without encouraging resilient retrofits. Insurer responses emphasized customer choice and responsibility, and they had concerns about communicating the benefits of resilient retrofits while later being blamed if a resilient roof suffered damage from a weather event.
- Overall, insurers take a cautious approach to communications primarily because of a lack of currently available discounts for homes that meet resilient standards.

Summary of the Literature Review

Scholarly research consistently underscores the benefits of enforcement of building codes and IBHS FORTIFIED programs, highlighting their role in mitigating structural damage and also enhancing community resilience by preventing income and job losses, increasing property values, and reducing insurance costs. For instance, homes in Missouri with stronger building code enforcement exhibit 10-20% lower average hail-related losses. Similarly, the Florida Building Codes have been shown to reduce windstorm-related damages by as much as 72%, with a corresponding benefit-cost ratio of 6:1. Economic analyses from Oklahoma further support these findings, revealing a benefit-cost ratio of approximately 3:1.

The research shows that retrofitting homes to meet IBHS FORTIFIED designations significantly reduces wind-related damages, with roof improvements alone reducing expected losses by 40-79%, depending on the level of retrofitting. During Hurricane Sally in 2020, nearly 17,000 homes in Alabama with FORTIFIED designations experienced minimal or cosmetic damage, despite the hurricane's Category 2 winds reaching 105 mph.

The research on homeowners' mitigation behavior highlights the significant role of risk perception, past experiences, and expectations of government assistance in shaping decisions regarding mitigation behavior. Notably, the literature indicates that the extent and adoption of mitigation strategies can be substantially increased through improved communication, targeted incentives, and heightened awareness of available programs. Specifically, the incentive programs in several states have been instrumental in encouraging homeowners to adopt FORTIFIED standards. The success of these programs highlights the role of state-level incentives in fostering widespread adoption of resilient construction practices, ultimately contributing to reduced damages and enhanced economic stability in the face of natural disasters.

Summary of State Incentives Programs

The study conducted a detailed analysis of incentive programs for resilient retrofits and structural upgrades in the following states: Alabama, Florida, Georgia, Louisiana, Minnesota, Mississippi, North Carolina, Oklahoma, Rhode Island, and South Carolina, where such programs have already been implemented or recently initiated. The primary focus was to capture the following aspects: (i) program descriptions, (ii) eligibility requirements, (iii) insurance incentives, (iv) other incentives (e.g., tax deductions), and (v) program data and analysis. In some states, including Georgia, Mississippi, Oklahoma, and Rhode Island, these programs were only recently initiated, and their descriptions are limited due to the lack of available details. The table on the next page summarizes these programs.

Table: Summary of State Incentives Programs

States	Program Name	Grant Program	Grant Amount	Requires IBHS FORTIFIED	Insurance Incentives	Program Reports	Program Funding
Alabama	Strengthen Alabama Homes	✓	up to \$10,000	✓	✓	Annual Report, 2022	\$20 mil
Florida	My Safe Florida Home	✓	up to \$10,000*	NA	✓	NA	\$200 mil
	Hurricane Loss Mitigation Program	✓	NA	NA	✓	Annual Report, 2022	\$3.5 mil
Georgia	NA	NA	NA	✓	✓	NA	NA
Louisiana	Louisiana Fortify Homes Program	✓	up to \$10,000	✓	✓	NA	\$30 mil
Minnesota	Strengthen Minnesota Homes	✓	up to \$10,000	✓	✓	NA	\$1 mil
Mississippi	NA	NA	NA	NA	✓	NA	NA
North Carolina	Strengthen Your Roof	✓	up to \$8,000	✓	✓	NA	\$20 mil
Oklahoma	Strengthen Oklahoma Homes	✓	TBA	✓	✓	NA	NA
Rhode Island	NA	NA	NA	NA	✓	NA	NA
South Carolina	South Carolina Safe Home Mitigation	✓	up to \$7,500**	✓	✓	Status Report, 2023	\$2.2 mil

*Matching grants. **Matching and non-matching grants.