



Mitigation Matters in Louisiana

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IBHS Mission

To conduct objective, scientific research to identify and promote effective actions that strengthen homes, businesses and communities against natural disasters and other causes of loss.

What Successful Mitigation Looks Like

- Building codes = strong and enforced for residential and commercial
- FORTIFIED Home™, FORTIFIED Commercial™ = national voluntary standards for resilience
- All parts of the building performance chain
- OFB-EZ® and EZ-PREP™
- Preservation of economic and social structures = not just buildings
- Overall goal = community resilience = a resilient nation

IBHS Priorities Relating to Insurance

- Lower loss exceedance curve
- Better understand (reducing) vulnerabilities
- Accurately assess weather–built environment interaction
- Improve Cat models
- New claims tools
- Reduce contractor fraud

Hurricane Harvey IBHS Post-Disaster Investigation

- Focus on wind damage to residential and commercial properties affected by western eyewall, using new mobile app
- Damage ranged from total destruction (just slab and some rubble remaining), to minor facade damage, to no discernable damage
- All else being equal, newer construction performed better than older construction
- Lack of power one of biggest barriers to recovery



Irma Observations

- In FL, wind speeds lower and path less destructive than forecast
- Homes sustained much less damage than from Andrew = better codes and enforcement
- Storm surge on Gulf Coast less than expected, but major flooding in northern FL, GA, SC, etc.
- Lack of power one of biggest barriers to recovery

What Do People Think About Disaster Risk?

- “It won’t happen to me; if it does, someone else will pay for it”
- “I would rather invest in granite countertops than a strong roof”
- “A 1/100 year event means nothing bad will happen for 99 more years”
- “I am outside a flood zone so my house won’t flood”
- “Insurance costs too much”

Louisiana Considerations

- Hurricane Katrina's legacy looms large in human, economic and insurance terms; Baton Rouge floods are another example that "it can (and probably will) happen here"
- Accomplishments = first statewide building code; multiple public, private, non-profit resilience initiatives; and billions of dollars spent on buildings and infrastructure

Louisiana Considerations Cont.

- Challenges = multiple efforts to reverse or bypass codes/regulatory requirements to save money or rebuild faster
- LA should understand the need for protection and a strong code, yet is backstepping with the recent Executive Order
- Culture shift must occur where officials and citizens understand that codes protect against repeated disasters and enable personal freedom; they don't erode it

Wind

Wind-Driven Rain

Hail

Wildfire



Initial Performance
(test standards)



Aging Effects



Repair vs.
Replacement

Building Codes

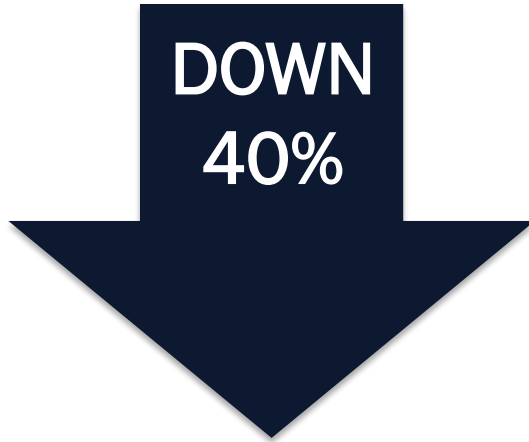
The MINIMUM Standard

Life Safety Protections

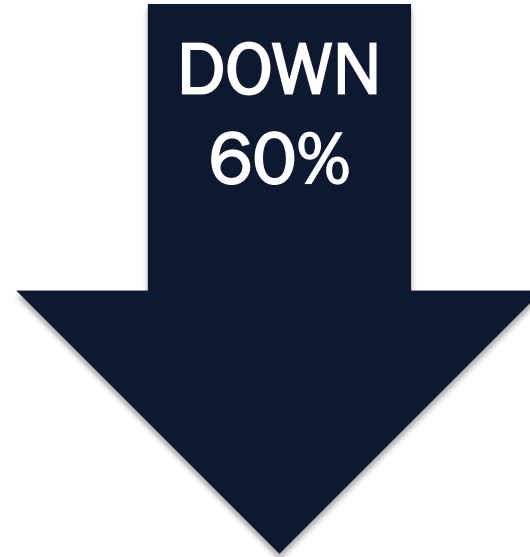
- **2015:** 500,000 structural fires in U.S., 2,685 civilian deaths
- **2016:** Oakland Ghost Ship fire (36 deaths)
- **2017:** Grenfell Tower fire (80+ deaths)

What Difference Do Building Codes Make?

Claim Severity

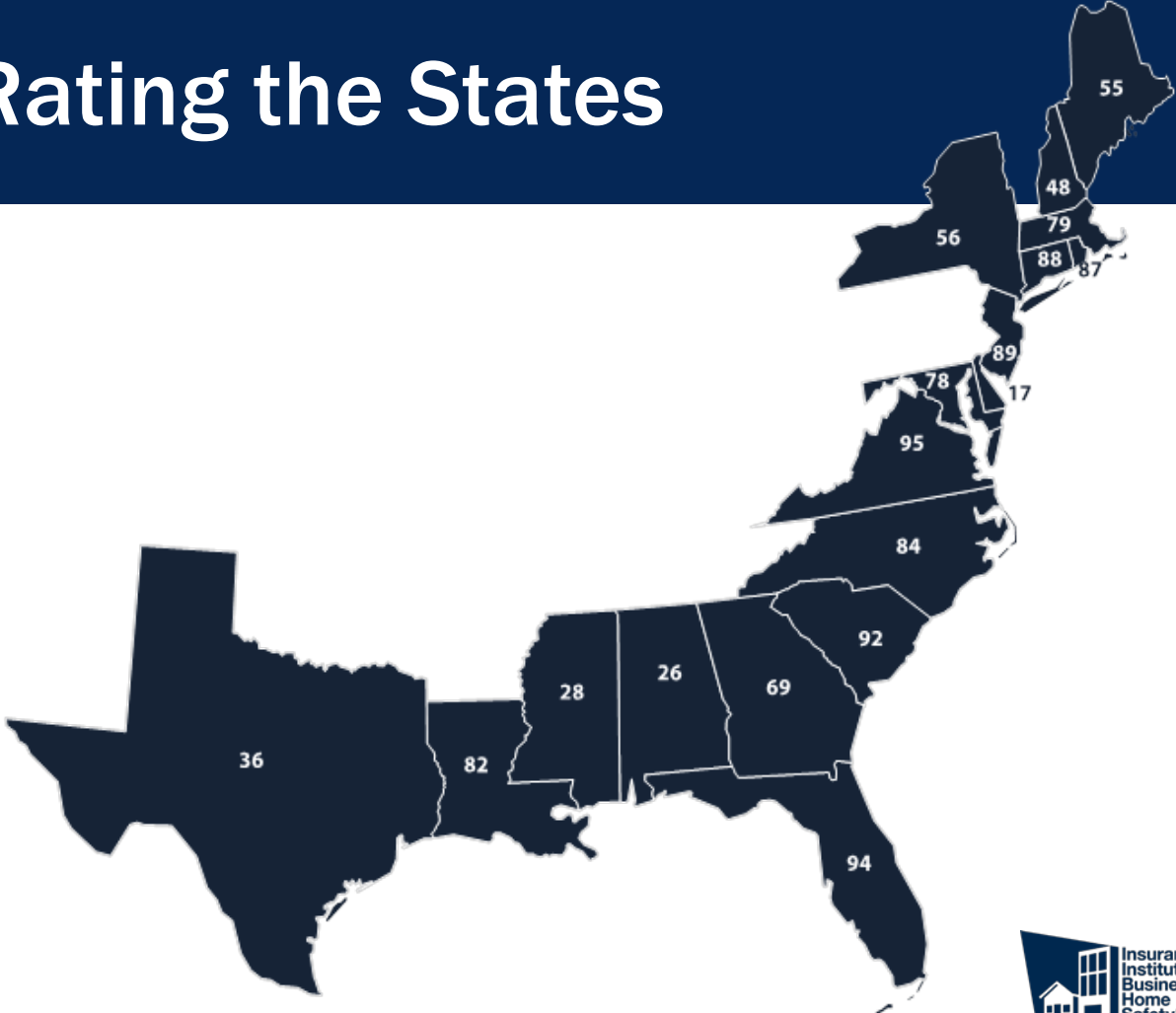
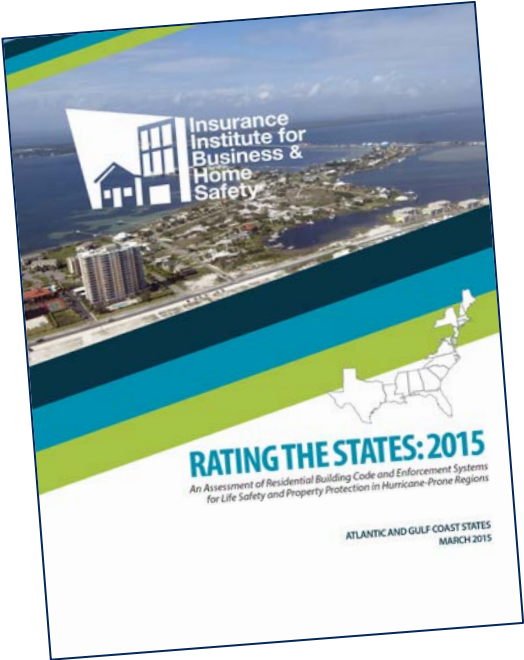


Claim Frequency



Reduction in losses of homes built to modern codes
—according to IBHS study after Hurricane Charley (2004)

Rating the States



Katrina 10 Years Later—Roof Resilience

2015 IBHS study surveyed 14 LA coastal parishes to measure post-Katrina improvements

- All 14 require permits for new construction/remodeling, but only 7 for re-roofing
- Only 7 require roofers to be licensed
- Almost all require inspections for roof sheathing and sheathing attachments for new roofs

LA Building Code Issues: 2005–2017

- Following Hurricane Katrina, LA adopted its first statewide building code (LA State Uniform Construction Code)
- In 2013, LA State Code Council adopted design wind speed maps of 2012 edition of IRC without accompanying maps delineating high-wind design or windborne debris regions

LA Building Code Issues: 2005–2017 Cont.

- Adoption of 2015 IRC would have resolved deficiency created as a result of not adopting the trigger high-wind design and windborne debris maps of 2012 IRC
- However, just before 2015 IRC scheduled to be effective (July 1, 2017) EO suspended code adoptions until June 1, 2018
- Result is gap in windborne debris protection high-wind areas

What Is FORTIFIED?



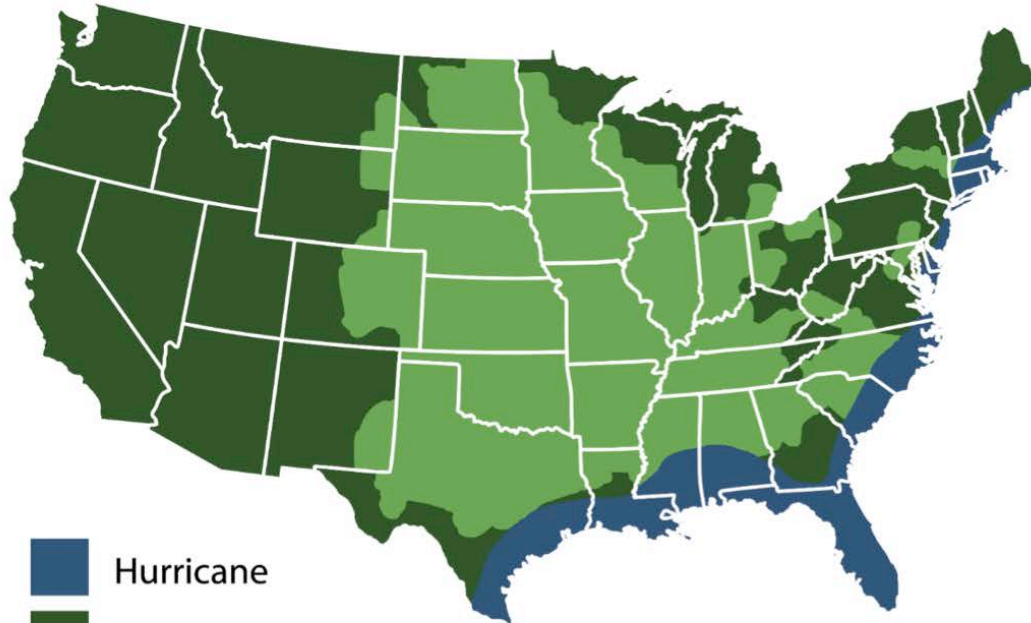
FORTIFIED is a suite of systematic, inspection-based resilience programs developed by IBHS

fortifiedhome.org

Why FORTIFIED?

- Reduce property damage and insurance claims
- Protect business operations and livelihoods
- Win-win situation for homeowners, communities, business owners, their customers, insurance companies, and society

FORTIFIED Risk Map



-  Hurricane
-  High Wind (Minimum required in all areas that are not Hurricane)
-  High Wind & Hail (Recommended in these areas)



FORTIFIED Home™ Levels



Hurricane



High Wind/High Wind & Hail



Roof and Attic Vent System

Roof System*

*Class 3 or 4 Impact Rating for HWH



Openings, Gables
and Attached Structures

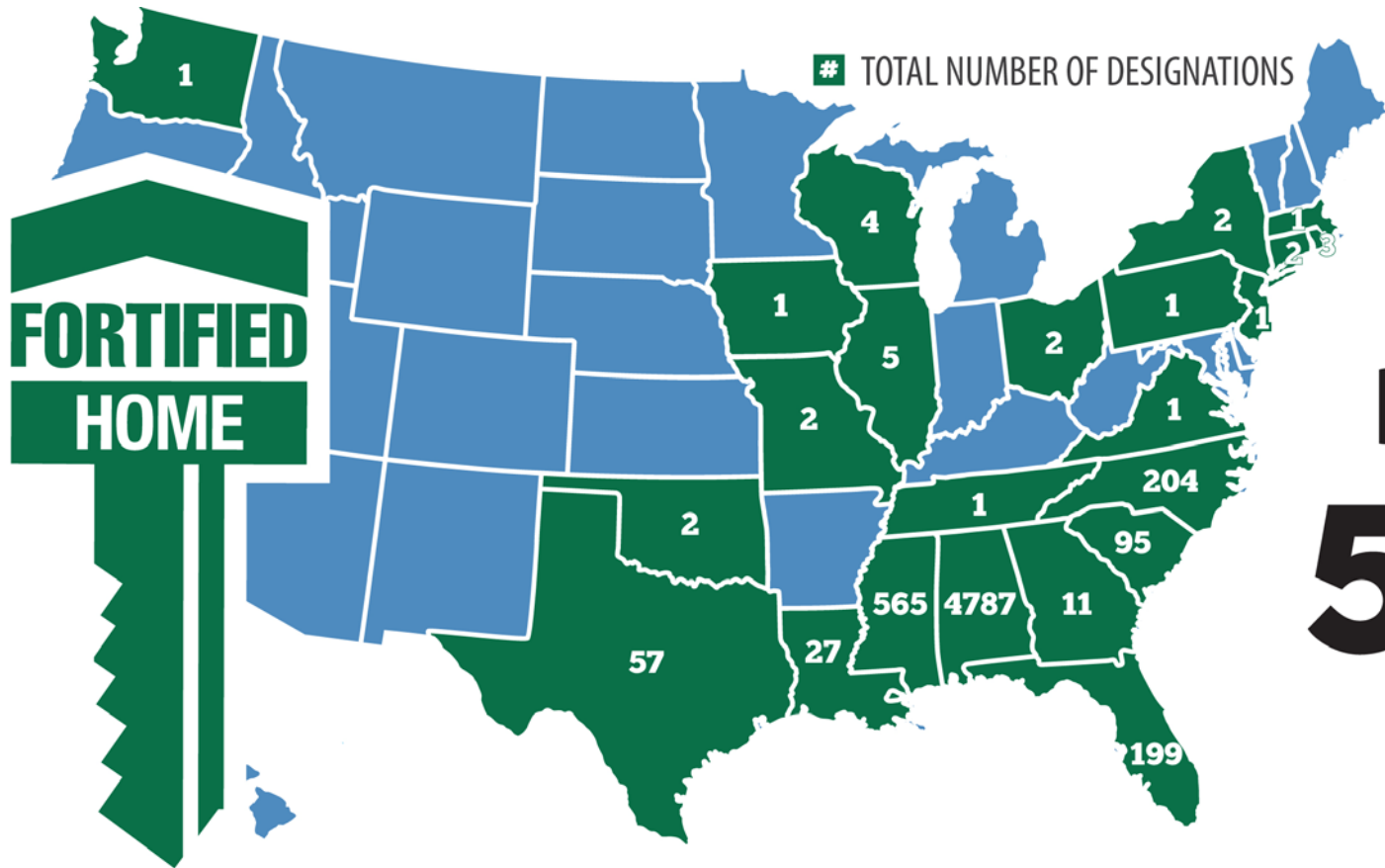
Gables, Porches, Carports
and Chimneys



Structure (Continuous
Load Path) and Chimney

Garage Doors and
Structure (CLP)

Location and Design Wind Speed are key determining factors in deciding which standard(s) apply.



Total Designations
5,978

Challenges Ahead

- Understanding risk
- Valuing resilience
- Financing mitigation
- Identifying and assessing risks associated with new technologies
- Public policy environment



Thank You

Please visit DisasterSafety.org
Contact IBHS at info@ibhs.org