Testimony

Of the

BuildStrong Coalition

Submitted to the

House Transportation and Infrastructure Subcommittee on

Economic Development, Public Buildings and Emergency Management

Hearing on

"**A Review of Building Codes and Mitigation Efforts to Help Minimize the Costs Associated with Natural Disasters**"

July 24, 2012, 10:00 a.m. EST

Introduction

Chairman Denham, Ranking Member Norton and Members of the Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management, the BuildStrong Coalition thanks you for holding this hearing to examine the vital role that strong building codes can play in preventing the damage and reducing costs associated with natural disasters.

My name is Rod Matthews and I am the P&C Operations Vice President for State Farm Insurance Companies, based in Bloomington, Illinois. State Farm is proud to be a founding member of the BuildStrong Coalition, a group of national business and consumer organizations, companies, firefighters, emergency managers and building professionals dedicated to promoting stronger building codes.

The BuildStrong Coalition shares the subcommittee's goal of helping communities to prepare for and recover from natural disasters while saving taxpayer money in the process. Our first consideration, however, must always be the safety of our communities and the American people. Our thoughts and prayers go out to the victims of recent tragedies caused by natural disasters – events which compel us to advance legislation to help fortify the nation's defenses against similar events in the future.

Not only is the cost of natural disasters measured in the loss of precious lives, it is also measured in the dollar cost to our economy. 2011 was the fifth most costly year on record for insured catastrophe losses in the United States. Approximately 50% of the $72.8 billion overall cost of disasters in the United States was covered by insurance in 2011. The remainder was either covered by federal disaster relief or not compensated at all.

For decades, Congress has routinely provided insufficient funding for disaster relief and then added funds in the middle of fiscal years. Supplemental disaster funds have been appropriated in 17 of the 22 budget years between fiscal year 1989 and 2010, according to the Congressional Research Service.

The ongoing need for emergency funding has often created political battles divided by both party and geographic lines. We know that natural disasters are inevitable, and while planning for the costs associated with these disasters is not a perfect science, there is a need for the federal government to budget more wisely for them on the front end. Merely hoping the weather cooperates and relying on luck is not the way to establish FEMA's disaster relief budget.

One effective step Congress should immediately take to alleviate the financial pressures associated with natural disasters is to encourage mitigation measures, specifically in the form of building stronger, safer homes and businesses. To that end, the BuildStrong Coalition strongly

endorses *HR 2069, the Safe Building Code Incentive Act*, as a forward-thinking investment in a stronger and safer America.

Building Codes Save Lives, Property and Taxpayer Money

There is overwhelming scientific evidence to support the conclusion that enforced model statewide building codes save lives and greatly reduce property damage and the subsequent need for federal disaster aid.

Model building codes govern all aspects of construction and help to protect homes and buildings from the devastating effects of natural catastrophes. Uniform, statewide adoption and enforcement of model building codes by states helps to reduce long-term risks affecting people, property, the environment, and ultimately the economy. The model codes are developed nationally in the U.S. by a consensus process involving researchers, construction experts, and local building officials. They are adopted and enforced at the state level to mitigate effects of natural disaster perils inherent to each state. Statewide building codes are not mandated by the federal government today and will not be if HR 2069, the Safe Building Code Incentive Act is enacted.

In recent years, there have been several significant studies that support the need for this Congress to incentivize the statewide adoption and enforcement of model building codes:

In a landmark study conducted in the aftermath of Hurricane Katrina, researchers at the Louisiana State University Hurricane Center estimated that stronger building codes would have reduced wind damage from Katrina by 80%, saving taxpayers and the local economy $8 billion.

In 2005, FEMA commissioned a study by the National Institute of Building Sciences' Multihazard Mitigation Council. The goal of the study, based on the work of more than 50 national experts, was to assess the future savings from hazard mitigation activities. According to the study, every $1 dollar spent on hazard mitigation (actions to reduce disaster losses) provides the nation with about $4 in future benefits.[1]

In response to the devastating tornadoes in the spring of 2011, the FEMA Building Science Branch of the Federal Insurance and Mitigation Administration (FIMA) deployed a Mitigation Assessment Team (MAT) to Alabama, Georgia, Mississippi, Tennessee and Missouri to assess the damage caused by these storms. This report presented 49 recommendations directed at improving public safety and building performance during tornado events. The adoption and enforcement of model building codes was the key recommendation presented more often than any other measure in the MAT report.

[1] Multihazard Mitigation Council, December 19, 2005 ; http://www.nibs.org/index.php/mmc/news/Entry/newstudydisastermitigationiscosteffectiveandreducesfuturelosses

Another study conducted for the Insurance Institute for Business & Home Safety (IBHS) found that losses from Hurricane Andrew, which struck south Florida in 1992 and caused more than $20 billion (in today's dollars) in insured damage, would have been reduced by 50 percent for residential property and by 40 percent for commercial property if those structures were built in accordance with Florida's 2004 statewide building code. Another IBHS study following Hurricane Charley in 2004 found that modern building codes reduced the severity of property losses by 42 percent and the frequency of losses by 60 percent.

More valuable research is currently being conducted by IBHS at their recently opened research center in Richburg, South Carolina. This research has already demonstrated how the human and financial toll of natural disasters can be greatly reduced by building stronger homes and business structures. With relatively simple upgrades in construction, such as strapping to create a continuous load path from the roof, through the walls, and into the foundation, thicker roof decking, and textured, rather than smooth nails, test homes were built to withstand 110 mile-per-hour winds with little damage. On the other hand, test homes with the same floor plan that were not upgraded, were completely destroyed at wind speeds of only 95 mph to 100 mph. Taking steps to prepare in these ways before a disaster hits can make a major difference.

Despite this correlation, most states have not enacted statewide building codes and necessary enforcement measures. Standards for construction, code-related inspection, and enforcement vary widely across the country. Where statewide codes exist, it is not uncommon to allow individual jurisdictions (e.g., cities of a particular class, or counties) to deviate from the adopted model building codes resulting in a weakening of the model minimum standards.

Natural Disasters are Inevitable; How Can We Be Better Prepared?

Given that we are in the midst of hurricane season, I would be remiss without touching briefly on how vulnerable we are to the high winds associated with hurricanes and tornadoes.

In an analysis of inflation adjusted U.S. catastrophe losses between 1990 and 2011, wind losses were by far the most costly[2]. Hurricanes alone accounted for 42% of the $375.7 billion in economic losses ($160.5 billion), while tornadoes have 31.8% of the losses ($119.5 billion). Florida's current hurricane dry spell of nearly seven years is the second longest in recorded history, but it is still a question of "when" a hurricane will hit Florida, not "if".

Though less publicized than wind and rain, damage from storm surge inundation can significantly impact homes and businesses through intense flooding and residual standing water pushed overland by the storm. A 2012 CoreLogic Storm Surge Report[3] examined single-family

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[2] *The Legacy of Hurricane Andrew: What Has Been Learned Over the Past 20 Years?*; The Insurance Information Institute, June 27, 2012; http://www.iii.org/presentations/the-legacy-of-hurricane-andrew-what-has-been-learned-over-the-past-20-years.html

[3] CoreLogic 2012 Storm Surge Report; http://www.corelogic.com/about-us/researchtrends/2012-storm-surge-report.aspx

homes exposed to potential hurricane storm surge damage along the Gulf and Atlantic coasts in the U.S., providing the number and estimated value of total properties at risk. The report states that even a Category 1 hurricane such as Irene in 2011, the first to make landfall in the U.S. in three years, can cause billions in destruction in cities and states that may have assumed they were safe from the storm surge peril. The value of all structures that could potentially be damaged by a Category 5 hurricane storm surge (or a Category 4 in New York City) exceeds $700 billion. Even lower category hurricane surge events could damage more than $500 billion in structural value.

Where seismic risk is concerned, earthquakes in Haiti and Chile in 2010 and Japan and the U.S. in 2011 have focused much needed attention on the preparedness of the U.S. for such an event. While Haiti is very different from the U.S., the two countries share some characteristics with regard to the vulnerabilities of property and number of people living in areas at risk from earthquake damage.

About 200 years separated Haiti from its last major quake and the 2010 devastation. It has also been 200 years since the 1811-1812 earthquakes struck along the New Madrid/Wabash Valley Seismic Zone in Arkansas, Illinois, Indiana, Mississippi, Missouri and Tennessee. Research by the United States Geological Survey (USGS) estimates there is a 7% to 10% chance of an earthquake of magnitude 7.0 or greater (the same strength of the Haiti earthquake) within the next fifty years. Applied Insurance Research (AIR) recently estimated expected insured losses to residential, commercial and industrial buildings and contents of approximately $110 billion if a quake similar to that which occurred in 1811-1812 occurred today. Just as Haiti did not observe model building codes, the most vulnerable areas in the New Madrid fault also lack effective building code adoption and enforcement.

The other two areas of the U.S. with the greatest seismic risk are Charleston, South Carolina and the Pacific West Coast, which includes California, Oregon and Washington. All four states enforce statewide model building codes reflective of the best available science and cognizant of the earthquake peril. The rest of the country should be incentivized to update their building codes to put the power of modern building science to use for their homeowners and businesses.

It should be noted that current seismic codes are more focused on life safety issues rather than the resiliency or reparability of buildings. They are meant to prevent general failure (collapse) while allowing for local damage (damage to non-critical sections) to protect people. Damage to code-compliant buildings can still be costly, but the reduction of lives lost is the principal aim. As such, even though the 1994 Northridge, California earthquake caused significant damage and resulted in over $6.8 billion being paid in federal disaster aid, it is considered successful evidence of seismic codes.

<u>The Safe Building Code Incentive Act</u>

Those of us who work in the insurance industry and the emergency management community have concluded long ago that strong building codes are the nation's best first line of defense

against natural disasters. Stronger, safer homes and businesses save lives and better protect people's biggest investment.

This is where the efforts of this subcommittee can be so important to the American people. If Congress can establish the proper incentives and focus the attention of the states on the undeniable value of strong building codes, the nation will be safer and much more resilient to natural disasters.

The BuildStrong Coalition therefore urges your support of *H.R. 2069, The Safe Building Code Incentive Act*. This legislation provides states with additional disaster relief funding in exchange for adopting and enforcing modern building codes.

Under the proposed law, states that adopt and enforce nationally recognized model building codes for residential and commercial structures would qualify for an additional 4% of funding available for post-disaster grants. The program would be administered by FEMA through the Robert T. Stafford Act.

Currently about 20 states could qualify now – or with minor changes to their laws and regulations – for the incentive payment of 4% additional disaster aid. This legislation will not require any additional appropriation to FEMA since it draws funds from the existing Disaster Relief Fund. In addition, the nature of the incentive does not mandate the adoption of statewide building codes on any states that wish to maintain their current patchwork structure.

Over time qualifying states such as Florida have learned the costly lessons of building code effectiveness. Unfortunately, other states have still refused to act by adopting these minimum standards in building safety, thereby putting their citizens at higher risk and increasing the liability of all U.S. taxpayers.

With a disproportionate level of new development now being on coasts and waterways, it is critically important that we encourage the wide spread adoption of the model building codes in these areas in order to protect property, save lives and ultimately reduce taxpayer exposure to natural disasters..

A 2012 Milliman study found that H.R. 2069 would have saved U.S. taxpayers $11 billion in hurricane relief payments alone from 1988 to present had it been in place. That's almost $500 million a year in savings. It's time for the nation to have a long-overdue conversation about building safety and its intersection with natural disasters. This subcommittee can ignite this debate by moving forward with consideration of *The Safe Building Code Incentive Act*.

Conclusion

I want to thank the subcommittee again for holding this important hearing and for providing me with the opportunity to discuss the crucial role strong building codes can play in making the nation safer and more secure in the face of natural disasters.

The overwhelming evidence supporting the widespread adoption of statewide building codes proves that *the Safe Building Code Incentive Act* is a fiscally responsible way to empower FEMA to assist in natural disaster recovery while working to prevent future damage. The incentives associated with this legislation will cost a modest amount of money in the near-term, but significant savings will be realized in the long-term

Stronger, safer homes and businesses save lives and better protect people's biggest investment.

In closing, The BuildStrong Coalition wishes to thank the bill sponsors for their leadership and urges the Transportation and Infrastructure Committee to expeditiously pass *H.R. 2069, The Safe Building Code Incentive Act*.

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