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CONTROLLING THE RISING COST OF FEDERAL RESPONSES TO DISASTER

(114–40)

HEARING

BEFORE THE

SUBCOMMITTEE ON
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND
EMERGENCY MANAGEMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

MAY 12, 2016

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Committee on Transportation and Infrastructure
U.S. House of Representatives

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Chairman

Washington, DC 20515

Peter A. DeFazio
Ranking Member

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May 6, 2016

SUMMARY OF SUBJECT MATTER

TO:	Members, Subcommittee on Economic Development, Public Buildings, and Emergency Management
FROM:	Staff, Subcommittee on Economic Development, Public Buildings, and Emergency Management
RE:	Subcommittee Hearing on "Controlling the Rising Cost of Federal Responses to Disaster"

PURPOSE

On Thursday, May 12, 2016, at 10:00 a.m. in 2167 Rayburn House Office Building, Members of the Subcommittee on Economic Development, Public Buildings, and Emergency Management will meet for a hearing titled "Controlling the Rising Cost of Federal Responses to Disaster." The purpose of the hearing is twofold:

1. To examine and discuss data related to disaster costs, the trends observed over time, and the projections for the future given the policies in place today, including current federal disaster assistance programs and the requirements and effectiveness of those programs.
2. To begin exploring potential solutions and the principles that should be driving solutions to lower the overall costs of disasters and to help avoid devastating losses.

Witnesses include the Federal Emergency Management Agency (FEMA), National Emergency Management Association, National Institute of Building Sciences, National Association of Counties, and the Build Strong Coalition.

V

BACKGROUND

Disaster Losses and Federal Disaster Spending Have Increased Significantly

According to numerous studies, disaster losses and federal disaster spending have increased significantly over the last 50 years. In 2012, Munich Re, the world's largest reinsurance company, reported that between 1980 and 2011, North America suffered $1.06 trillion in total losses, including $510 billion in insured losses, and an increase in weather-related events five-fold over the previous three decades.[1] In 2005, it was reported that since 1952, the cost of natural disasters to the federal government more than tripled, as a function of gross domestic product.[2]

There are numerous causes that may be driving these costs including population growth and increased density in disaster-prone areas, changes in weather and fire events, and changes in disaster relief programs. In a recent report, FEMA acknowledged the increase in the number of extreme disaster events and increased vulnerabilities throughout the United States due to shifting demographics, aging infrastructure, land use, and construction practices.[3]

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[1] Munich Re (2012). *Severe weather in North America – Perils Risk Insurance.* Munich, Germany: Muchener Ruckversicherungs-Gesellschaft.

[2] The Princeton University Geoscience 499 Class, *The Increasing Costs of U.S. Natural Disasters.* Geotimes, November 2005.

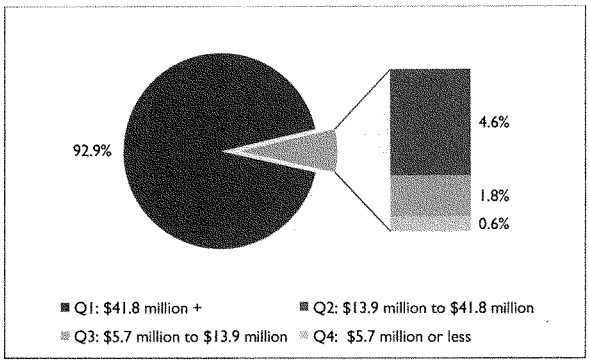
[3] Federal Emergency Management Agency, *National Strategy Recommendations: Future Disaster Preparedness*. September 6, 2013. Available at http://www.fema.gov/media-library-data/bd125e67fb2bd37f8d609cbd71b835ae/FEMA+National+Strategy+Recommendations+(V4).pdf.

A Few Disasters Account for Most FEMACosts

The Congressional Research Service (CRS) analyzed data from over 1,300 major disasters since 1989, and adjusting for inflation, found that FEMA obligated more than $178 billion for these disasters.[4] However, CRS also found that 25 percent of all disasters account for over 92 percent of disaster costs.[5] Therefore, the remaining 75 percent of smaller disasters constitute less than eight percent of FEMA disaster spending. See the diagram below:

Cost of Major Disaster Declarations by Size

FY1989-FY2014



Source: CRS analysis of FEMA obligation data.

[4] CRS Memo *Data Analysis for House Transportation and Infrastructure Committee,* January 14, 2015.
[5] *Id.*

The Increase in Disaster Declarations

FEMA is the federal government's lead agency for preparing for, mitigating, responding to, and recovering from disasters and emergencies related to all hazards whether natural or man-made. When state and local resources are overwhelmed and the "disaster is of such severity and magnitude that effective response is beyond the capabilities of the state and the affected local governments,"[6] the Governor of the affected state may request that the President declare a major disaster. Below is a snapshot of declarations over the last decade:

Presidential Declarations in the Last Decade

Year	Major Disaster Declarations	Emergency Declarations	Fire Management Assistance Declarations	Total
2016	22	3	6	31
2015	43	2	34	79
2014	45	6	33	84
2013	62	5	28	95
2012	47	16	49	112
2011	99	29	114	242
2010	81	9	18	108
2009	59	7	49	115
2008	75	17	51	143
2007	63	13	60	136
2006	52	5	86	143
2005	48	68	39	155

Source: http://www.fema.gov/disasters/grid/year viewed May 5, 2016.

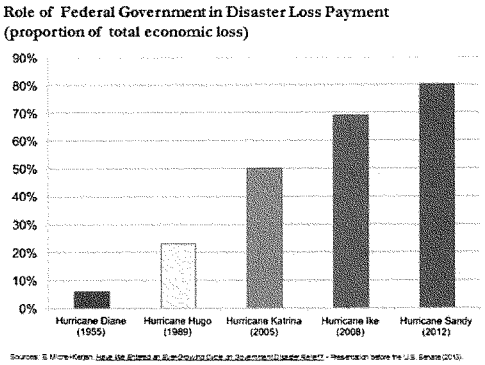
The chart above illustrates a recent decline in the number of disasters since 2011, a year that experienced the most disaster declarations in history. However, CRS has analyzed the number of disaster declarations back to 1953 and observed a steady increase in disaster declarations through 2011.[7] FEMA reports that over two thirds of all disasters were declared in the last two decades, between 1996 and 2013.[8]

[6] 42 U.S.C. § 5170.
[7] CRS Report 42702 *Stafford Act Declarations 1953-2011: Trends and Analyses and Implications for Congress* by Bruce R. Lindsay and Francis X. McCarthy.
[8] Federal Emergency Management Agency. Available at http://www.fema.gov/disasters/grid/year.

The Growth of Federal Disaster Assistance

The Percentage of Disaster Costs Covered by the Federal Government is Increasing

As the following diagram illustrates, the financial burden of disaster response has fallen increasingly on the federal government.

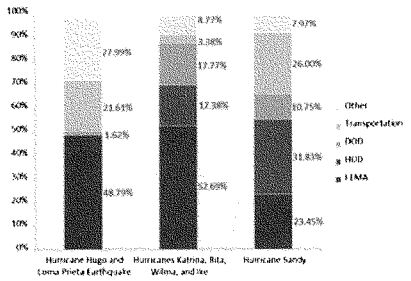


The Number of Federal Disaster Assistance Programs is Increasing

FEMA was established in 1979 to centralize and better coordinate the federal government's disaster activities, which had been scattered across the government and poorly coordinated in response to the Three Mile Island nuclear disaster and several other disasters. Over time, numerous other agencies have received authorities and appropriations for additional federal activities and programs focused on disaster recovery. These programs have differing legal authorities, eligibility requirements, and objectives.

The following diagram illustrates how over time the number of non-FEMA disaster assistance programs and the amount of funding made available for non-FEMA disaster assistance programs have grown.

Growth of Non-FEMA Federal Disaster Aid



Source: CRS analysis of supplemental appropriations laws passed following major disasters. Farm bill programs above Hurricane Hugo and the Loma Prieta Earthquake included P.L. 101-100, P.L. 101-130 and P.L. 101-302. Hurricanes Katrina, Rita, Wilma, and Ike included P.L. 109-62, P.L. 109-61, P.L. 109-148, P.L. 109-234, P.L. 110-28, P.L. 110-116, P.L. 110-252, and P.L. 110-329. Hurricane Sandy included P.L. 113-2.

Most recently, the following programs have been significantly involved in disaster recovery, and as such, received funding in the wake of Hurricane Sandy.

- Housing and Urban Development (HUD) Community Development Block Grant Disaster Funds (CDBG-DR) – Congress can provide funding for disaster recovery through HUD's CDBG Program. Most recently, funds were made available to provide non-competitive, nonrecurring assistance targeted at low-income areas impacted by disasters in 2011, 2012, and 2013.

- U.S. Department of Transportation (USDOT) Federal Transit Administration Emergency Relief Program (ERP) – The ERP's purpose is to help states and public transportation systems pay for protecting, repairing, or replacing equipment and facilities that may suffer or have suffered serious damage because of an emergency, including natural disasters. The ERP is also intended to improve coordination between USDOT and the Department of Homeland Security (DHS) to expedite assistance to public transit providers in times of disasters and emergencies.

- U.S. Army Corps of Engineers – The Corps receives money for the rehabilitation, repair, and construction of projects. These funds are available to projects provided that they reduce future flood risk and support long-term sustainability.

Initiatives to Develop Solutions

The FEMA Disaster Assistance Reform Act of 2015 Establishes a Study of Disaster Costs

Given the trends in disaster costs and losses, the Committee has called for a complete assessment of these losses, what is driving these losses, what federal disaster assistance is available to individuals and the public and private sectors, the appropriate roles of each of those parties, and what public policy changes would result in fewer disaster losses and thus lower disaster-related costs.

On March 19, 2015, Chairman Barletta, Chairman Shuster, Ranking Member Carson and Ranking Member DeFazio introduced H.R. 1471, the FEMA Disaster Assistance Reform Act of 2015. On February 29, 2016, the bill passed the House. This bipartisan legislation establishes a comprehensive study to assess disaster costs and develop recommendations for reducing those costs; improves our Nation's emergency management capabilities and federal disaster programs; modernizes and strengthens critical components of our preparedness and response system; and supports emergency response personnel. Specifically, the legislation requires the National Advisory Council to conduct the comprehensive study and include policy recommendations to help reduce future losses.

FEMA's Proposal to Establish a Disaster Deductible

On January 20, 2016, FEMA published an advanced notice of proposed rulemaking in the *Federal Register* soliciting comments on a proposal to establish a predetermined level of financial or other commitment from a state or tribal government before FEMA will provide assistance under the Public Assistance Program when the President declares a major disaster.

FEMA believes the deductible model would incentivize states and tribal governments to make meaningful improvements in disaster planning, fiscal capacity for disaster response and recovery, and risk mitigation, while contributing to more effective stewardship of taxpayer dollars. For example, states and tribal governments could potentially receive credit toward their deductible requirement through proactive pre-event actions such as adopting enhanced building codes, establishing and maintaining a disaster relief fund or self-insurance plan, or adoption of other measures that reduce the state's or tribal government's risk from disaster events. The deductible model would increase stakeholder investment and participation in disaster recovery and building for future risk, thereby strengthening our Nation's resilience to disaster events and reducing the cost of disasters long term.

All comments were to be received by March 21, 2016. 148 comments were received.

Witness List

The Honorable Carlos Curbelo
U.S. Representative
26th District, Florida

The Honorable Joseph L. Nimmich
Deputy Administrator
Federal Emergency Management Agency

Mr. Brian Koon
Director, Florida Division of Emergency Management
President, National Emergency Management Association

Mr. Kevin Mickey, GISP, CTT+
Chair, Multihazard Mitigation Council
National Institute of Building Sciences
Director, The Polis Center, Indiana University Purdue University, Indianapolis

Ms. Sallie Clark
Commissioner, El Paso County, Colorado
President, National Association of Counties
International Association of Emergency Managers

Mr. Eric Nelson
Vice President, Catastrophe Strategy & Analysis
The Travelers Companies, Inc
Build Strong Coalition

CONTROLLING THE RISING COST OF FEDERAL RESPONSES TO DISASTER

THURSDAY, MAY 12, 2016

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT,
PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:10 a.m. in room 2167, Rayburn House Office Building, Hon. Lou Barletta (Chairman of the subcommittee) presiding.

Mr. BARLETTA. The subcommittee will come to order. At our first hearing in the 114th Congress, I stated that my top emergency management priority was pursuing life-saving and cost-reducing disaster legislation and launching a public policy debate about the costs of disasters, in the terms of both the loss of property and human life.

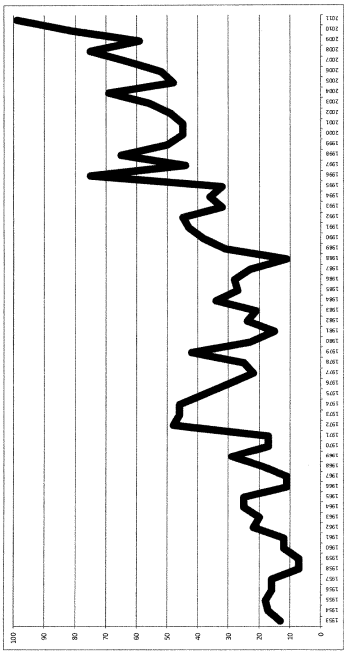
We followed that hearing with several roundtables to help us understand what disasters cost this country, who pays those costs, and whether the problem is getting better or worse. Early last year, Ranking Member Carson and I introduced the FEMA Disaster Assistance Reform Act to call for the first comprehensive assessment of disaster costs and losses in over 20 years. We also wanted to reform several disaster assistance programs to make them more efficient and more effective. In February the House passed this FEMA [Federal Emergency Management Agency] legislation and we hope the Senate will take up H.R. 1471 and pass it soon.

The purpose of today's hearing is to discuss what we have learned so far and begin exploring potential solutions, particularly the principles that should be driving those solutions. While there are significant variations from year to year, we have found that disaster losses have grown considerably over the past three decades. As a result, the private sector and Government are spending an ever increasing amount of money on disasters. FEMA alone has obligated more than $178 billion since 1989 for over 1,300 Presidential disaster declarations.

In addition, the number of Federal disasters is going up.

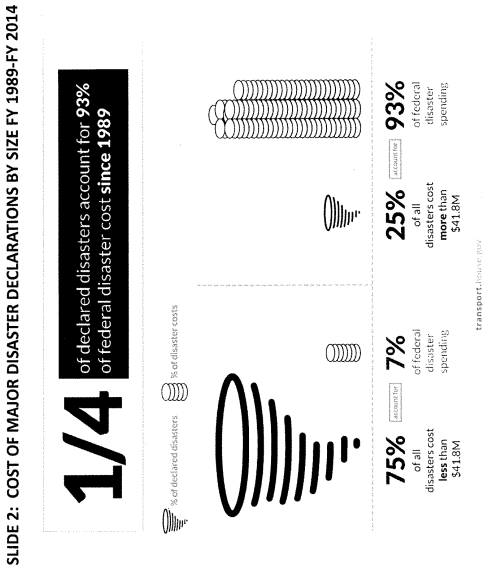
Take a look at this graph that shows the steady increase in the number of Presidential disaster declarations since 1953.

SLIDE 1: NUMBER OF U.S. PRESIDENTIAL DISASTER DECLARATIONS – 1953-2011



Source: Michel-Kerjan and Kunreuther, *Science*, 2011 (data from FEMA)

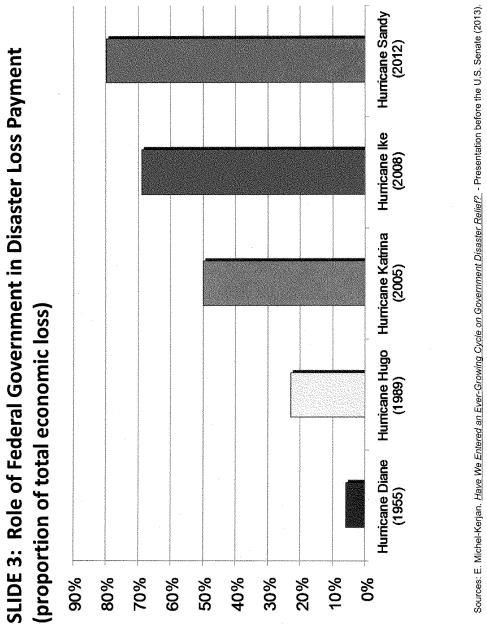
Mr. BARLETTA. Many have suggested, including the Government Accountability Office, that the growth in the number of disaster declarations may be causing the increase in Federal disaster costs. But when we had the Congressional Research Service look more closely at the data, they found the growth in declaration is driven by small disasters and they represent a very small part of Federal disaster spending.



Mr. BARLETTA. In fact, 75 percent of all declared disasters account for only 7 percent of costs. In other words, we could eliminate three-quarters of all federally declared disasters and barely cut 7 percent of Federal disaster spending. I would argue the amount saved by eliminating those disaster declarations certainly would not outweigh the benefit those declarations provide to helping our smaller, remote communities respond to and recover from disasters.

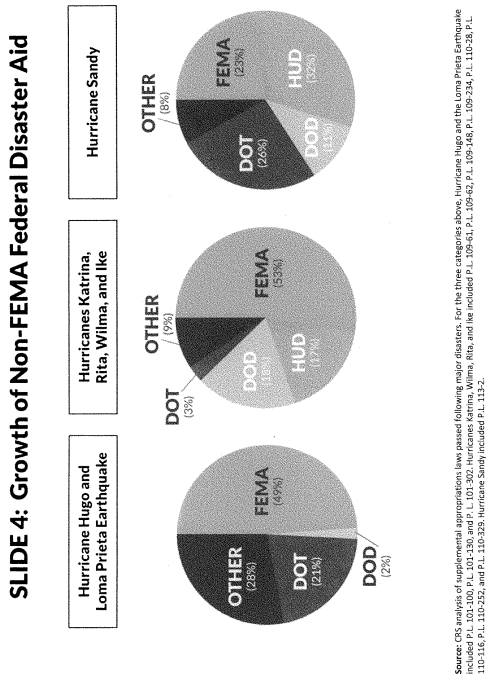
In order to understand why disaster costs are going up, we need to look at the big disasters, since that is where over 90 percent of the money goes. Since we started looking into this issue, we have also found the role of the Federal Government in covering disaster losses has increased.

As we can see here, Federal disaster spending as a share of total disaster losses has grown from 23 percent during Hurricane Hugo in 1989 to 80 percent during Hurricane Sandy in 2012.



Mr. BARLETTA. In recent years, significant disaster aid has been provided outside of FEMA's disaster assistance programs.

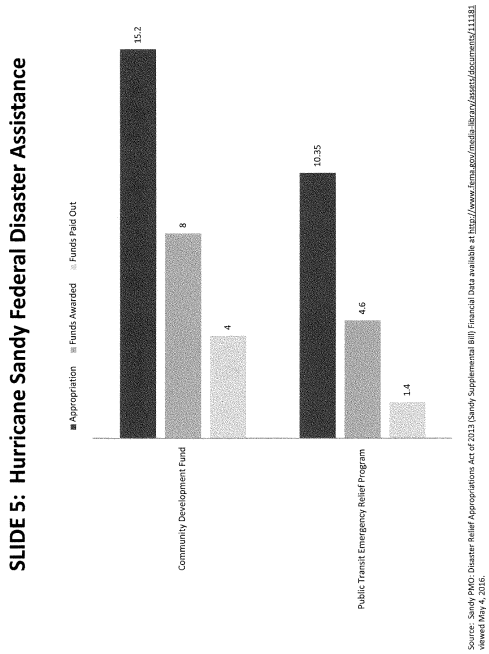
The charts show how disaster aid programs outside FEMA have grown. In fact, for Hurricane Sandy, there was less FEMA assistance than from either the Department of Housing and Urban Development or the Department of Transportation. We found that these additional disaster aid programs don't have the same requirements and restrictions as the FEMA assistance.



Source: CRS analysis of supplemental appropriations laws passed following major disasters. For the three categories above, Hurricane Hugo and the Loma Prieta Earthquake included P.L. 101-100, P.L. 101-130; and P. L. 101-302. Hurricanes Katrina, Wilma, Rita, and Ike included P.L. 109-61, P.L. 109-62, P.L. 109-148, P.L. 109-234, P.L. 110-28, P.L. 110-116, P.L. 110-252, and P.L. 110-329. Hurricane Sandy included P.L. 113-2.

Mr. BARLETTA. FEMA assistance is tied to actual disaster damage, and is for individuals, governmental entities or certain nonprofits performing government-like functions. FEMA only spends money on eligible items for eligible applicants, no matter how much money FEMA receives. FEMA mitigation funds must be used on cost-beneficial projects to ensure the Federal investment is a wise one. FEMA makes every effort to get money into the hands of applicants as fast as possible to enable rapid recovery from disaster impacts.

In the most recent data provided by the Sandy Program Management Office from March 2016, it appears that these agencies have been slow in awarding and especially paying out funds.



Mr. BARLETTA. Based on this data, only one-third of the CDBG–DR [Community Development Block Grant Disaster Recovery] funds have been dispersed and only 13 percent of the FTA [Federal Transit Administration] funds have been paid out. Now, this may be worth looking into in greater detail, and it certainly shows why a comprehensive look into disaster spending, as well as costs and losses, is needed. In an era of growing Government debt, we need to ensure Federal spending is necessary and cost-effective.

Right after I became a Member of Congress in 2011, my own district was hit hard by Hurricane Irene and Tropical Storm Lee. I remember in Bloomsburg a family stayed in their home to try to move their possessions to an upper floor. But Fishing Creek rose too quickly. The house next to theirs was knocked from its foundation. Water started gushing through their front windows as they called for help. They had to be saved by a helicopter. The woman there told me she can never live in that home again.

I will never forget that preparing for natural disasters is about more than the loss of possessions; it's our friends' and neighbors' lives that could be at stake if we do not plan in advance. As we were rebuilding, I was amazed that much of the Federal assistance was to rebuild in the same place in the same way, leaving people vulnerable to the next storm.

The Federal Government has a responsibility to respond after a disaster, but we also have a duty to be good stewards of the taxpayer dollar. I look forward to the conversations we will have today, the ideas we are going to hear about, and taking the next steps to reduce the costs of disasters, and I thank you all for being here.

I ask unanimous consent that Members not on this subcommittee be permitted to sit with the subcommittee at today's hearing, offer testimony, and ask questions.

And with that, I now call on the ranking member of the subcommittee, Mr. Carson, for a brief opening statement.

Mr. CARSON. Thank you, Chairman. Great words. Good morning, everyone, and welcome to today's hearing. While we have several prominent witnesses today, I would especially like to welcome a fellow Hoosier, Mr. Kevin Mickey, from the great Hoosier State. Mr. Mickey is the director of The Polis Center at Indiana University Purdue University Indianapolis. He is also the new chair of the Multihazard Mitigation Council at the National Institute of Building Sciences.

I look forward to my colleagues learning about the work being done in the great Hoosier State, particularly Indianapolis, to address rising disaster costs and losses, plus the latest report from the Multihazard Mitigation Council.

Mr. Mickey's national leadership and his local work are terrific examples of what Indianapolis is doing in the field of emergency management.

I yield back, Mr. Chairman.

Mr. BARLETTA. Thank you, Ranking Member Carson. We will have two panels of witnesses today. On our first panel we have our fellow subcommittee member, Carlos Curbelo from Florida. As someone from south Florida, Representative Curbelo knows all too well the risks posed by natural hazards, the rising cost of disasters, and the efforts that have proven successful in Florida to incentivize mitigation measures and smart behaviors. Congressman Curbelo has been a leader in this area and a great advocate for his constituents in south Florida.

On our second panel we will be joined by the Honorable Joseph Nimmich, the Deputy Administrator of the Federal Emergency Management Agency, or FEMA, who has been working on ways to reduce the cost of disasters and build resilience in communities to avoid disaster losses.

Ms. Sallie Clark, commissioner of El Paso County, Colorado; she is here in her capacity as president of the National Association of Counties.

Mr. Bryan Koon, director of the Florida Division of Emergency Management, and the president of the National Emergency Management Association; he is here to talk with us about his experience, as well as help us see things from a State perspective.

Mr. Eric Nelson, senior vice president, catastrophe risk management for the Travelers Companies, Inc., representing the BuildStrong Coalition.

Mr. Kevin Mickey, chair of the Multihazard Mitigation Council of the National Institute of Building Sciences.

I ask unanimous consent that our witnesses' full statements be included in the record.

[No response.]

Mr. BARLETTA. Without objection, so ordered. We had hoped that Chief David Paulison, the former Administrator of FEMA, would be able to join us, but he had other commitments. I do have a written statement for the record from Administrator Paulison. I thank him and the BuildStrong Coalition for their input on these important topics, and I ask unanimous consent that this statement be included for the record.

[No response.]

Mr. BARLETTA. Without objection, so ordered.

For our witnesses here, since your written testimony has been made a part of the record, the subcommittee would request that you limit your oral testimony to 5 minutes.

Congressman Curbelo, you may proceed.

TESTIMONY OF HON. CARLOS CURBELO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. CURBELO. Chairman Barletta, Ranking Member Carson, members of the committee, thank you for the opportunity to testify before you today. This is my first time testifying before Congress, and I am glad to do it here, at the Committee on Transportation and Infrastructure's Subcommittee on Economic Development, Public Buildings, and Emergency Management, especially to discuss the important topic of disaster mitigation. I am honored to serve with all of you.

I would like to take the opportunity to share some thoughts on controlling the rising costs of the Federal Government when responding to disasters. I am a native of south Florida. And my good friend, Mr. Sires, who is working with me on this issue, is from New Jersey. We both have a deep and personal understanding of the devastating impacts of natural disasters on families and communities, and have seen firsthand what happens when homes, schools, and businesses aren't built to withstand the forces of nature. My family and I lived through Hurricane Andrew back in 1992. Fortunately, in my part of town, the damage was not extreme. But just a few miles south, where some of my family members lived, the devastation was horrifying.

Being a Floridian, I know that we have pretty strong State building codes already on the books. But at the national level it is time to fix the broken Federal system that is riddled with red tape, waste, fraud, and abuse. There is some great work already being done in the field of pre-disaster mitigation, and I would like to thank Chairman Barletta for being a strong leader on the issue.

Over the last 30 years we have seen a significant increase in federally declared natural disasters. But instead of taking additional steps to focus more on preparing for these disasters with enhanced building codes to make communities safer, the Federal Government typically waits until after a disaster occurs to react. This is incredibly dangerous and costly, especially with the increase in extreme weather events.

According to the Weather Channel, this hurricane season is supposed to be the most active since 2012. So this hearing and these

issues are of the utmost importance, and very timely. For these reasons, my friend, Mr. Sires, who knows firsthand in New Jersey just how costly cleanup is after a disaster, has introduced legislation to work towards promoting stronger building codes at the national level by introducing H.R. 5177, the National Mitigation Investment Act of 2016.

This legislation works to alleviate losses to resident and commercial property following a natural disaster through preventative measures. It would provide incentives for the adoption and achievement in enforcing State building codes. We do this by allowing the President to increase mitigation assistance following a natural disaster by 4 percent, based off of the price of cleanup, but only if the State is enforcing building codes. This incentive can encourage States and localities to be proactive in future building, and also save a lot of funds in the long run.

The bill would also create a pilot program to award grants to State and local governments to encourage the adoption and enforcement of nationally recognized building codes. The goals of the grant program are to reduce disaster response and recovery costs by increasing resilience of buildings and reducing the amount of damage that occurs due to disaster and chronic flooding. Grant awardees will be required to accomplish these goals with non-Federal matching funds no less than 25 percent, and FEMA will be required to provide reports back to Congress on the success of the program.

Mr. Chairman, the residents of both Florida and New Jersey have had to rebuild communities after the devastating effects of catastrophic natural disasters. Returning to a life of normalcy is tremendously difficult, and can take many years. Furthermore, chronic tidal flooding poses a significant threat to real estate along our waterfront communities, especially in my south Florida district and the constituents that Mr. Sires represents, as well. This undoubtedly affects insurance rates, property values, clean water supplies, and general public welfare.

We believe that, through preemptive methods of incentivizing State and local governments to adhere to stronger building codes, we will alleviate the burdens and costs of the Federal Government after a natural disaster.

I thank my friend, Mr. Sires, for working with me on this legislation. I look forward to hearing from other experts on the issue of disaster mitigation in the next panel. This is a topic that requires perspectives from diverse geographical locations and multiple industries, and I appreciate being able to discuss my bill today. Thank you very much, Mr. Chairman.

Mr. BARLETTA. Thank you for your testimony, Congressman Curbelo. I will now begin the first round of questions, limited to 5 minutes for each Member. If there are any additional questions following the first round, we will have additional rounds of questions, as needed.

While we usually do not have questions for Members of Congress, Mr. Sires is an original cosponsor of Mr. Curbelo's legislation, and has a few questions.

Mr. SIRES. I would really thank you, Mr. Chairman. I am not going to ask Mr. Curbelo questions, because we have been working on this for a while.

But I do want to thank you. You and I have firsthand experience on how devastating some of these catastrophes are, how it impacts life, how it impacts community, how it impacts the economy. And I really want to thank you for taking a strong lead on this. New Jersey got hit hard, Florida has been hit hard. And I just want you to know that I think this is the way to go, you know. Investing in mitigation, especially on a national level, where we can put some real strong codes has always been on my mind for many years.

So I just want to thank you for your hard work, and I look forward to continuing, and am proud to work with you on this legislation. Thank you very much.

Thank you, Mr. Chairman.

Mr. BARLETTA. Thank you. Are there any questions? Mr. Costello? No.

Ranking Member Carson?

Mr. CARSON. No, sir.

Mr. BARLETTA. If not, then we thank you very much for your testimony. Your comments have been helpful to today's discussion.

We will now call our second panel. I remind you of the subcommittee's request to limit your oral testimony to 5 minutes. And we will give everyone the chance to be seated.

[Pause.]

Mr. BARLETTA. Thank you very much. Deputy Administrator Nimmich, you may proceed.

TESTIMONY OF HON. JOSEPH L. NIMMICH, DEPUTY ADMINISTRATOR, FEDERAL EMERGENCY MANAGEMENT AGENCY; HON. SALLIE CLARK, COMMISSIONER, EL PASO COUNTY, COLORADO, ON BEHALF OF THE NATIONAL ASSOCIATION OF COUNTIES; BRYAN KOON, DIRECTOR, FLORIDA DIVISION OF EMERGENCY MANAGEMENT, ON BEHALF OF THE NATIONAL EMERGENCY MANAGEMENT ASSOCIATION; ERIC NELSON, SENIOR VICE PRESIDENT OF CATASTROPHE RISK MANAGEMENT, TRAVELERS INSURANCE, ON BEHALF OF THE BUILDSTRONG COALITION; AND KEVIN MICKEY, GISP, CTT, CHAIR, MULTIHAZARD MITIGATION COUNCIL, NATIONAL INSTITUTE OF BUILDING SCIENCES, AND DIRECTOR OF PROFESSIONAL DEVELOPMENT AND GEOSPATIAL EDUCATION, THE POLIS CENTER, INDIANA UNIVERSITY PURDUE UNIVERSITY INDIANAPOLIS

Mr. NIMMICH. Good morning, Chairman Barletta, Ranking Member Carson, and the members of the subcommittee. As you know, my name is Joe Nimmich. I am the Deputy Administrator for the Federal Emergency Management Agency. Thank you for this opportunity to testify about the efforts FEMA is undertaking to reduce the rising cost of disasters.

With the continued trend towards urbanization, particularly in large cities located in high-risk areas, and the increasing severity of weather events, the Nation faces the potential for ever-increasing costs in responding to and recovering from disasters.

During a disaster response, FEMA's primary goal is to support the survivors through effective, efficient operations. Though FEMA has procedures in place to control costs during a response, one of the most effective ways to reduce disaster costs is to invest in com-

munity resilience before a disaster strikes, thereby reducing the physical and financial and particularly the human impacts of the event.

Preparedness and mitigation investments made before a disaster strikes significantly lessen the financial impacts on communities, States, and the Nation. One of the most effective mitigation tools is establishing stringent building codes and standards that ensure the property is built to insurable levels. Let me repeat that: Building codes and standards that ensure the property is built to insurable levels.

You will hear multiple times today that for every dollar invested in mitigation, a savings of $4 is achieved, due to the reduced impacts post-disaster. Mitigation programs reduce costs to the American public by an estimated $3.4 billion annually.

I have to move off my prepared comments to thank this committee and the Congress for taking action such as the post-Sandy legislation, where we were able to move the recovery costs forward based on assessments, but add the mitigation costs at that time so that the building back is better and reduces the future potential.

FEMA has made significant strides in the last few years, bringing the larger emergency management community together around a National Preparedness System. This provides communities a common approach to managing the risks, and provides communities the information, tools, and funding they need to make informed, data-driven decisions. This is just one step FEMA takes in promoting resilience.

The National Flood Insurance Program serves as the foundation for the national efforts to reduce loss of property from floods, the most costly and frequent disaster in the United States. The program identifies areas at risk for flooding, and makes flood insurance available to participating communities. Within the NFIP, the Community Rating System to incentivize communities to implement flood plain management practices, offering lower NFIP insurance premiums to participating communities.

Additionally, FEMA provides hazard mitigation assistance through programs such as Pre-disaster Mitigation, Flood Mitigation Assistance, Hazard Mitigation Grant Programs. These provide funding to communities to implement hazard mitigation measures pre- and post-disasters.

Programs such as the NFIP and the Community Rating System and hazard assistance invest in community resilience before the disaster strikes. This year FEMA went a step further, developing the disaster deductible concept, which encourages States, tribal, and territorial investment in resiliency mitigation programs. I strongly believe this program will be critical to any effort to reduce future disaster costs in a significant way.

As you have indicated, Congressman Barletta, Congress, the GAO [Government Accountability Office], and others have indicated that the Federal cost of disasters continues to rise. The solution of moving the threshold higher merely distributes the cost differently, but does not reduce the cost of potential disasters. With the disaster deductible concept, States would have to meet a predetermined financial commitment, similar to meeting an insurance

deductible, as a condition of receiving Federal funds to rebuild damaged facilities and infrastructure.

Additionally, FEMA would provide credits for those States' investments in resiliency measures, such as adopting the building enhanced codes or funding preparedness and mitigation projects. Using these credits, a State's deductible could be reduced, thereby ensuring that communities have an incentive for investing in resilience.

During a 60-day comment period, FEMA received 150 responses. We are currently evaluating those to provide input from the advanced notice of proposed rulemaking to develop a proposed rulemaking for later this year. While preparedness and mitigation efforts can help us to reduce the costs in many areas, we must continue to acknowledge that demographic patterns are not something we can easily or readily influence, but we can take steps to account for these patterns by improving building codes, promoting preparedness.

FEMA strives to invest in our Nation's resilience and support disaster survivors, while being good stewards of the taxpayers' dollars. We continue to look for innovative ways to encourage risk reduction, promote preparedness and mitigation planning, and efficiently implement the recovery programs in order to reduce both the risks and cost to the American taxpayer.

Thank you for this opportunity today to testify, and I look forward to any questions the subcommittee may have.

Mr. BARLETTA. Thank you for your testimony, Deputy Administrator Nimmich.

Commissioner Clark, you may proceed.

Ms. CLARK. Thank you, Chairman Barletta, Ranking Member Carson, and members of the subcommittee, for the opportunity to testify before you today on the cost of disasters. My name is Sallie Clark, and I am a county commissioner from El Paso County, Colorado, and also serve as the president of National Association of Counties, which represents all of America's 3,069 county governments.

Although all parts of Government play a role in disasters, counties often serve as the first line of defense when a disaster strikes, and are responsible to help our communities recover in the aftermath. Whether it is our emergency managers or sheriffs or 911 call centers, county hospitals, or public health departments, or the fact that we own the majority of our Nation's infrastructure, like roads, bridges, and airports, Federal policy decisions regarding disasters have a major impact on counties.

My county is no stranger to disasters, and the topic of this hearing is personal for me. Over the past several years, El Paso County and our surrounding areas have been devastated by a series of wildfires and flash floods that have upended our residents' lives, strained our local economy, and caused enough damage to prompt four Presidential disaster declarations over a 3-year period.

Our county, which long ago inspired Katharine Lee Bates to write the famous hymn, "America the Beautiful," is now home to charred, barren hillsides. And the vegetation that once protected the area from stormwater runoff has disappeared, paving the way for dangerous flash floods.

But we have been working diligently to help our community recover and become more resilient in the future. Today I respectfully submit three principles for your consideration, as you continue to discuss Federal disaster spending.

First, Federal disaster spending should be viewed in the context of corresponding spending by State and local governments and the capacity of each level to fund disaster recovery efforts. Thousands of disasters strike our Nation each year, and the vast majority of long-term recovery costs are carried on the backs of State and local governments.

According to NACo's [National Association of Counties'] analysis of FEMA data, over the last 10 years 92 percent of counties across the Nation had at least one FEMA-declared disaster. And according to materials published by FEMA, the number of disasters successfully handled without request for Federal assistance is estimated at 3,500 to 3,700 annually, while only about 35 disasters per year received major declarations triggering Federal assistance between 1953 and 2014.

Furthermore, it is important to consider the respective fiscal capacity of Federal, State, and local governments when assessing contributions to our Nation's recovery from disasters. County governments in more than 40 States operate under restrictive revenue constraints imposed by State policies, including caps on property taxation that limit counties' ability to raise additional funds in the face of rising disaster costs. Local governments spend significantly on disasters. And changes to Federal disaster spending should not be assessed without consideration of this.

Second, decreases in Federal disaster spending should not come at the expense of State and local governments. The ultimate result of shifting Federal disaster costs to State and local governments will further deplete resources available for proactive disaster mitigation and resiliency work, resulting in even costlier disasters in the future.

FEMA's disaster deductible proposal presents some serious challenges for local governments. For example, El Paso County has spent many millions of dollars on mitigation projects in the last several years, as we have worked to recover from the wildfires and flash floods that have ravaged our community, including loss of life. But under the disaster deductible proposal, if the State of Colorado fails to sufficiently invest in mitigation efforts, public assistance funds could be withheld from our county at times when we are in most need of Federal assistance.

In this way we could be punished because of the inaction of an entity over which we have no control, despite our best efforts in mitigation. And this is just one of the many issues with this proposal that thus far have not been sufficiently addressed.

Because of this, FEMA has not given local governments confidence that a disaster deductible could be implemented without the significant risk that it would simply shift disaster costs from the Federal Government to State and local governments.

And finally, local disaster mitigation efforts bring down the overall cost of disasters, and should be supported by the Federal Government. Counties are uniquely positioned to implement mitigation efforts through our regulatory authorities and convening powers.

Collaboration with the Federal Government helps counties better utilize our authorities and resources to mitigate the damage caused by disasters, increasing community resiliency, and decreasing impact and cost of future disasters for all levels of Government.

FEMA's Hazard Mitigation Grant Program and the other Federal programs enable counties to undertake large mitigation projects that may otherwise be out of their reach and have tremendous potential to drive down the cost of disasters for all levels of Government.

Mr. Chairman, Ranking Member Carson, and members of the subcommittee, I want to thank you again for inviting the local perspective on this important conversation. And I would welcome any questions.

Mr. BARLETTA. Thank you for your testimony, Ms. Clark.

Mr. Koon, you may proceed.

Mr. KOON. Thank you, Mr. Chairman, Ranking Member, and members of the subcommittee. My name is Bryan Koon, and I am the director of the Florida Division of Emergency Management. I am here on behalf of the National Emergency Management Association, which represents the State emergency management directors of the 50 States, territories, and the District of Columbia.

As the frequency, intensity, and variability of disasters increase, it is imperative to reduce risk wherever possible. This will ensure that our scarce personnel and financial resources are focused on life safety, and those aspects of the built environment where the risk cannot be reduced.

NEMA believes the following. Meaningful cost reduction should impact all levels of Government and the private sector, and not simply shift the cost between stakeholders. The Government practice of spending more money on disaster recovery than risk reduction must be changed. Hazard mitigation is a cost-effective effort with a documented return on investment. Mitigation reduces response costs and speeds recovery. Integrating mitigation meaningfully into recovery can be the catalyst for a communitywide focus on preparedness in the future.

Mitigation and resilience activities by State, local, and tribal governments should be recognized and incentivized by the Federal Government. In the long term, cost savings will be realized at all levels.

Much of the legal authority and responsibility for risk reduction decisions and activities resides at the local level, such as adoption and enforcement of building codes, zoning, and land use decisions. Local and tribal governments are critical partners in creating and sustaining disaster-resilient communities, and must be engaged in this conversation.

All stakeholders must utilize the best available science and predictive analysis tools to illustrate data-driven result on investment calculations. This can only be done when data is made available to all stakeholders, and when calculations are not done in a vacuum. We must leverage data to support our risk reduction priorities.

At the urging of Congress, FEMA has undertaken various efforts over the last decades to reduce cost and streamline operations. Reengineering of the Public Assistance Program is an excellent example of FEMA working to improve and maximize existing programs.

While it is still too early to determine the effectiveness of the change, we are pleased with the effort, and urge that similar reforms be considered in other Federal programs.

Investment into the Emergency Management Assistance Compact, or EMAC, leverages Federal grant dollars that have already been invested in State and local emergency management programs. We must encourage greater investments, as States work with one another to reduce the need for Federal assistance, Federal administrative costs, property damage, and, most importantly, save lives.

In January, FEMA proposed a concept to create a State deductible for federally declared disasters. While there was no consensus opinion among the States, many expressed these common beliefs about any new proposal: the concept should drive real reduction in costs at all levels, and not merely a shift in costs; an appropriate amount of time must be given to ensure successful implementation, including internal education for FEMA, and training and guidance for States; States must also be given adequate time to ensure that any budgeting requirements are understood and acted upon by State legislatures; the proposal should utilize the opportunity to decrease administrative burden and associated costs; and the deductible cannot result in delayed assistance to those in need.

Regardless of what happens with the disaster deductible or any other current initiative, real progress will be achieved when all critical stakeholders are engaged. I would like to wrap up with a few thoughts on where we go next.

The Federal Government should continue to offer incentive programs that allow States to pursue innovative ways to strengthen their communities. We recommend FEMA and other agencies continually evaluate these programs to better understand the things that deter or prevent communities from fully leveraging these opportunities.

NEMA also recommends that a study to determine the true cost of disasters be conducted that captures not only those direct financial costs borne by FEMA, but also those costs, both direct and indirect, that are paid by other Federal agencies, State, local, and tribal governments, and the private sector.

Position FEMA as a partner in developing a more resilient Nation. FEMA's focus must transcend response and the agency must make advancements in all phases of the disaster cycle. Mitigation and long-term recovery are societal investments, not a cost.

Many of the functions that FEMA fulfills during a disaster could be done in a more cost-effective manner by using personnel deployed from tribal, State, or local government through EMAC. Invest in the infrastructure necessary to achieve this goal.

In addition to improving currently existing Federal programs, FEMA and others should recognize outstanding efforts done by State and local entities and encourage their adoption, nationwide. While many stakeholders approach the issue of increasing disaster costs differently, we all have a common goal. As Government officials, private-sector business leaders, and community members, we all have a role to play in reducing the cost and impact of disasters.

I appreciate the opportunity to testify before you today and stand ready to answer any questions the committee may have.

Mr. BARLETTA. Thank you for your testimony, Mr. Koon.

Mr. Nelson, you may proceed.

Mr. NELSON. Good morning. Chairman Barletta, Ranking Member Carson, and members of the subcommittee, thank you for holding this important hearing today to examine solutions to controlling the increased costs of natural disasters. My name is Eric Nelson, and I am senior vice president of catastrophe risk management at Travelers Insurance. I am testifying today on behalf of the BuildStrong Coalition, a group of businesses and consumer organizations dedicated to reducing human and economic losses from natural disasters.

As one of the largest property casualty companies in the U.S., Travelers provides a unique private-sector expertise that can add value to the Federal Government's mission to manage its own risk and losses from natural disasters.

I would first like to thank Chairman Barletta and the members of the subcommittee for their continued leadership in conducting a series of roundtables on this topic beginning in January of last year. I begin today by outlining three major takeaways from those roundtables. And before I do that—that is—the main question we want to ask ourselves is what actionable steps can Congress take to mitigate risk, lessen the impact of families and communities across America, and reduce Federal losses from natural disasters?

The first takeaway from the roundtables is that, by almost every measure, Federal disaster spending is increasing on an unsustainable path. Dr. Erwann Michel-Kerjan from Wharton showed that Federal cost-share of natural disasters exploded over the last 60 years, increasing from roughly 6 percent in 1955 to 77 percent in 2015.

The second takeaway from the roundtable is that the States, communities, and individuals have little incentive to undertake loss prevention measures before a disaster occurs. We are going to hear in a minute the Multihazard Mitigation Council conducted a study documenting how every dollar spent on mitigation saves the Nation approximately $4 in post-disaster relief costs. A new study by Wharton indicated that a $1 increase in the Individual Assistance grant program reduces disaster insurance demand by $6. These findings represent compelling evidence that the Federal Government is inadvertently fostering short-sighted behavior throughout State and local governments and with individual homeowners.

The third point from the roundtable is that eliminating disincentives and replacing them with the appropriate incentives for mitigation can benefit all parties involved. The Federal Government would benefit by lowering its cost share for disaster assistance. States would benefit by alleviating the budget constraint caused by disasters, and easing their dependency on Federal aid. Families would benefit by reducing personal disaster costs and protecting loved ones. Communities and local economies would benefit by enabling citizens and businesses to recover more quickly after an event.

While the benefits are clear, the question remains: What specific actions can Congress take?

The National Mitigation Investment Strategy is based on the latest science and engineering research from world-class research institutions, such as the Insurance Institute for Business and Home

Safety, or IBHS. IBHS and other research institutions conduct research on building performance standards and simulated disaster conditions and controlled environments. Research from these institutions demonstrates that statewide adoption and enforcement of building codes can reduce long-term risk. Studies conducted in the wake of major disasters also support this finding.

Another fact. According to IBHS, at least 25 percent of all businesses that close down for 24 hours or more during a disaster never reopen. That is staggering stats. And think about the businesses and the jobs.

Another stat we looked at was the LSU [Louisiana State University] Hurricane Center estimated that stronger building codes would have reduced wind damage in Hurricane Katrina by 80 percent, or $8 billion.

So thank you for your leadership, Congressman Curbelo and Congressman Sires. I am pleased to report that the core principles from this report have been turned into legislation and introduced in H.R. 5177, the National Mitigation Investment Act. This act provides a powerful incentive for States to adopt and enforce statewide building codes and authorize a first-of-its-kind competitive grant program to improve building code enforcement.

Further, the legislation includes a provision authorized by the chairman in H.R. 1471, authorizing Congress to look at the first comprehensive assessment of Federal disaster spending by Congress in over 20 years. Congressional leaders, policy experts, and GAO all agree strong building codes, and enhanced pre-disaster mitigation would provide life and cost-saving benefits.

I urge you and your colleagues to support the National Mitigation Investment Act in order to rein in Federal Government's exploding costs. Chairman Barletta, Ranking Member Carson, and the subcommittee, I applaud you for your efforts, and thank you for taking up this issue. I would be happy to answer any questions.

Mr. BARLETTA. Thank you for your testimony, Mr. Nelson.

Mr. Mickey, please proceed.

Mr. MICKEY. Chairman Barletta, Ranking Member Carson, and members of the subcommittee, thank you for the opportunity to provide testimony on approaches for reducing the cost of natural disasters. My name is Kevin Mickey, director of professional development and geospatial education at The Polis Center at Indiana University Purdue University Indianapolis, which has the mission of linking academic and community expertise to create strong and resilient communities.

I am here today as the chairman of the Multihazard Mitigation Council of the National Institute of Building Sciences, introducing a new and unique approach we have proposed for the incentivization of private property owners throughout the United States.

The United States Congress established the National Institute of Building Sciences in 1974 to serve as an authoritative source for both the public and private sectors to improve the built environment. To achieve its mission, the institute has established 18 councils that engage building industry experts in examining and developing tools, technologies, and practices to meet identified needs. The institute and its Multihazard Mitigation Council, or MMC, and

Council on Finance, Insurance, and Real Estate [CFIRE] have been particularly focused on opportunities to advance resilience and encourage the most cost-effective approaches to reducing the impacts of natural, as well as man-made, disasters.

As you are aware, there have been numerous efforts at developing increased building codes and standards, mitigation programs, scientific studies of best practices, and definitions of resilience. And yet we continue to find that the penetration of hazard mitigation into the private sector is spotty and woefully incomplete.

Now, this is not to say that these efforts have not been effective. As has already been pointed out, a 2005 MMC study showed that implemented mitigation strategies do indeed save on the order of $4 for every $1 spent. And currently, the institute is discussing with Federal agencies and the private sector a project to revisit this 2005 study and expand it to consider all Federal programs, the role of model building codes, and the benefits that mitigation provides to the private sector.

Recognizing the significant benefits achieved through proactive investments in mitigation, the limited funding available to support disaster mitigation response and recovery, as well as the anticipated increase in disaster events, a new approach is necessary.

The most cost-effective manner to achieve resilience is through a holistic and integrated set of public, private, and hybrid programs that capture opportunities available through investment and mortgages and equity real estate, insurance, finance, tax incentives and credits, grants, regulations, and enhanced building codes and their application. This focus on leveraging private-public sector opportunities to induce corrective action is called incentivization.

The incentivization approach calls for input, consensus, leadership, and action from a broad spectrum of stakeholders representing the financial, regulatory, and economic processes that need to be developed and coordinated to make incentivization part of the Nation's economic fabric. Participants should include those who offer incentives such as insurance and finance-related companies, lenders, and foundations, as well as forward-thinking communities and Government agencies and important decisionmakers that most definitely need to include homeowners, businesses, and utilities.

The MMC and CFIRE jointly published and developed a white paper entitled, "Developing Pre-Disaster Resilience Based on Public and Private Incentivization," which provides a catalog of existing programs for different hazards that private and public sector stakeholders can evaluate and then modify or expand to develop incentives. The specifics of incentivization need to be tailored for new and existing construction, using optimal resilience measures beyond current law or custom, and to account for hazard risk, locality, business size, and the value of resilient strategies. One size cannot fit all.

Incentivizing the means to achieve resilience before disasters occur focuses on monetizing the benefits for incorporating risk mitigation practices in the ordinary course of business. Participating stakeholders need sufficient confidence that using incentives to achieve resilience will justify investments, underwriting, and loan and grant programs. The private sector will not undertake resil-

ience investments just because it is sensible, but because it is economically prudent.

While my written testimony describes many opportunities for congressional action, I offer a few specific recommendations here.

First, every Federal dollar associated with construction, community development, and infrastructure must include a requirement that the latest building codes be met or exceeded.

Second, Congress and Federal agencies should examine all programs, particularly grant-making programs, to identify opportunities to support resilience.

And finally, Federal investments and programs should require investment in mitigation.

Thank you for the opportunity to testify before you today. Please consider The Polis Center, as well as the National Institute of Building Sciences as resources as you look to address challenges related to the built environment.

I look forward to your questions.

Mr. BARLETTA. Thank you for your testimony, Mr. Mickey.

I will now begin the first round of questions, limited to 5 minutes for each Member. If there are additional questions following the first round, we will have additional rounds of questions, as needed.

Deputy Administrator Nimmich, why are the big disasters costing so much money now, and what factors do you think are driving this change?

And then I would also like to hear Mr. Koon and Mr. Nelson's thoughts on that.

Mr. NIMMICH. Congressman Barletta, I think the biggest challenge is the continued movement of populations into high urban areas that happen to have been developed from historic perspectives in very dangerous areas along our rivers for flooding, along our coastlines for major storms, and on earthquake faults. The reality of people moving to the cities is one that we are going to face for the foreseeable future, and that only increases the potential of costs.

Additionally, the value of property has gone up substantially over time. And therefore, the recovery costs continue to go up. What it cost to build a mile of roads 30 years ago is very different than what it takes to build a mile of roads today. The only solution is, in fact, building for those future States that we look at, in terms of culverts that can maintain the flow of water, bridges that are better maintained, all of the infrastructure that needs to be there, as well as public buildings built to standards that allow for the potential of future disasters to be minimized.

Mr. BARLETTA. Mr. Koon, Mr. Nelson?

Mr. NELSON. Yes. Just to add to that, the wealth effect that has happened in America since the 1970s, clearly, the average home size has increased by about 1,000 square feet.

Echoing the comment more and more Americans moving to areas that have higher risk, but adding on top of that—we see it in our statistics—if you are growing in an area with poor building codes versus good building codes, we see it in the claims data, we see it—where we shouldn't be seeing claims we see claims at low wind speeds, at small hail sizes. There is a better way forward, and we see it for States like Florida that have had very good adoption of

building codes. There are proven studies that have shown how much it has benefitted. So just to add that to the conversation.

Mr. BARLETTA. Mr. Koon?

Mr. KOON. Thank you, Mr. Chairman. I concur with both Mr. Nimmich and Mr. Nelson.

I would also add I believe that, over time, there has been a better understanding and better utilization of the funding that is available to communities after those types of disasters. And so perhaps we are fully recognizing all of the ways that we can use those Federal, State, and local dollars to help the community recover.

I believe there is also probably an additional cost on the administrative oversight of those programs, and the program requirements to effect the recovery and subsequent mitigation. Those recovery programs can often stretch into the decades for some of our larger disasters. And so the administrative costs associated with those also add to those higher costs.

Mr. BARLETTA. Deputy Administrator Nimmich, we continue to see new disaster aid programs emerge ad hoc in reaction to disasters. They all seem to have different rules and requirements and do not seem well coordinated or focused on obtaining the best outcomes.

Don't FEMA programs contain strict requirements on eligibility, use, and cost effectiveness? And are you aware if other agency disaster programs include such requirements? And is this something that Congress should take a look at, so that we can streamline these programs and ensure that they are cost effective?

Mr. NIMMICH. Congressman Barletta, you are absolutely correct that we have very stringent codes and requirements in order to qualify for Federal dollars. And, as Mr. Koon pointed out, they often take a great deal of oversight to ensure that they are effectively and correctly implemented.

I can speak through the Sandy legislation, that there was a requirement to capture all of the different agencies, including HUD [U.S. Department of Housing and Urban Development] and Federal Transit Administration, to ensure we had a more complete understanding of where the different investments in recovery were going. That is not consistent across all of the different disasters that exist.

I will tell you that this year, for the first time, the administration passed the Federal Flood Risk Management Standards that require every agency, for every Federal dollar that is invested in recovery, to meet a standard for the first time. That includes the Department of Defense, as well as all the other agencies. So there are activities going on to try to ensure that we all build to a high standard. But the capture of those costs is not something that we currently do.

Mr. BARLETTA. Now I recognize Ranking Member Carson for 5 minutes.

Mr. CARSON. Thank you, Chairman.

Mr. Mickey, in terms of community buy-in, various reports have been released about the rising costs of disaster, benefits of mitigation and the need to take steps to mitigate for disasters. So Congress has also acted to incentivize mitigation.

So, for example, Congress authorized FEMA to provide additional Hazard Mitigation Grant Program funding to States with enhanced

plans, yet only 12 States have adopted these. So, even with incentives, it is very difficult to get States to take action.

How do we get the ideas in your report to the public and private sectors, and what is needed to actually get ideas implemented?

Mr. MICKEY. Well, I am happy to say that we have already taken some steps in that direction. Just this past January, the institute held a symposium here, in Washington, DC. That institute brought together experts in the industries that I identified in my testimony for the purpose of discussing exactly what was presented and, more importantly, to share their own ideas for how to incentivize resilience in their respective sectors.

The next step that the institute is currently pursuing is to develop a stakeholder leadership council that consists of the leaders of the various stakeholder groups to include insurance, loan organizations, bond writing organizations, businesses, utilities, homeowners, and, of course, local, State and Federal Government. The goal of that council is going to be to work on formulating the mechanisms for incentivization.

The idea that we have is that, by getting the buy-in of these stakeholders directly—because they will be the ones coming up with these incentive strategies—that others will then follow. And they are going to be incentivized to help build an enhanced economy that does not currently exist for writing insurance, originating loans and bonds, and generating construction activity.

Ultimately, the goal, as we see it, is to produce a set of products that consumers want. Let me give you a couple of examples that you will find in our full study.

State Farm Insurance offered a premium discount in Texas for installation of impact-resistant roofs. The result was that products related to impact-resistant roofs went from 10 in 1998 to more than 1,000 in the year 2003. And that program has now expanded out into 26 additional States. According to State Farm Homeowners, the IRR product, or the impact-resistant roof product, is something that they now want.

And then, just earlier this week in Washington, the mayor of the city of Fairhope, Alabama, Tim Kant, was attending the Resilience Building Codes Forum, and he made a statement that his community is now considered one of the most desirable places to live, specifically because their homes are recognized as being more resilient. And that community is one of the places where the fortified program is found.

The institute is planning to serve the role of identifying these solutions that I have mentioned. We recognize that there are plenty of best practices out there. What we want to do is bring together the stakeholders to identify those best practices and see them replicated across the industry. We recognize that costs are high, and we are looking for ways to reduce them, and we believe this is a creative approach.

Ultimately, we believe that activities such as implementing building codes need to be started to be viewed as a carrot, not as a stick. And if the incentives are appropriate, we think that can happen.

Mr. CARSON. Thank you.

Mr. Koon, you have mentioned FEMA's new customer service-centric focus for the Public Assistance Program as a positive step forward. Are there other actions FEMA could take with respect to the Public Assistance Program in order to reduce disaster costs and even losses?

Mr. KOON. Thank you, Ranking Member Carson. I believe that continued implementation of some of the procedures that were highlighted in the Sandy Recovery Improvement Act in ways that will help us expedite funding to the locals could result in cost savings and improved recovery, as we move forward.

We are eager to continue to work with FEMA on this PA [public assistance] reengineering process, to make sure that they are as customer-centric as possible in this situation, so that we can help, again, get those communities back up on their feet as quickly as possible, at a minimal cost to the Federal Government.

With regards to the question you asked Mr. Mickey earlier, with regard to incentives, if I may, we have done a very good job on providing incentives for programs. You mentioned the enhanced mitigation program, there are incentives offered through the National Flood Insurance Program, Community Rating System, there are incentives offered through the Sandy Recovery Improvement Act for debris removal. None of those, I believe, have fully met what they intended to do.

And so, continual reevaluation of those incentive programs to determine why they are not being taken up at the level we anticipate would be necessary, and then go back and improve the processes by which we implement those programs, would help them meet the maximum good they were designed to—intended to effect.

Mr. CARSON. Thank you. And Administrator Nimmich, earlier this week the White House hosted a conference on resilient building codes. Included in the fact sheet issued by the White House it stated that FEMA is developing a more detailed plan to be put forth for additional public discussion in a notice of proposed rulemaking.

Has FEMA finished reviewing all the comments and arrived at determining that it will definitely go forward with rulemaking on disaster deductible concepts, if so?

When can Congress and stakeholders expect the proposed rule to even be issued?

Mr. NIMMICH. Representative Carson, thank you for the question. The deductible process has been one where we have reached out heavily to the user group. And, as Ms. Clark indicated, we have received over 150 very detailed responses to the advanced notice of proposed rulemaking. And we went through the advanced notice of a rulemaking process in order to get that type of feedback that Ms. Clark indicated, where there are concerns that this might just be the ability to transfer costs from the Federal Government to State and then to local communities.

The intent here is exactly what we have been talking about, to incentivize and make more consistent the ability for communities to invest in mitigation and preparedness capabilities. We are now going through those 150 comments to be able to come up with an actual proposed rule that will have details in it that we will then go out through the proposed rulemaking process to get specific com-

ments back on those rules. We anticipate that that will be out some time this calendar year, sir.

Mr. CARSON. Thank you. And I don't know where we are on time, Mr. Chairman, but I yield back.

Mr. BARLETTA. Thank you, Ranking Member Carson.

Mr. Graves, you have 5 minutes.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman.

Administrator Nimmich, who is in charge within the Federal Government of our national efforts in terms of community resilience? Which agency?

Mr. NIMMICH. So, as you would expect, Congressman, FEMA, through the National Preparedness Program, provides the guidance for the Federal Government to be able to assist State and locals in developing their preparedness programs. And FEMA, working with the States through their threat estimating program, as well as their preparedness reports, captures that information, as well as for the Federal Government——

Mr. GRAVES OF LOUISIANA. OK.

Mr. NIMMICH [continuing]. But each agency themselves are responsible for their support to the preparedness plan.

Mr. GRAVES OF LOUISIANA. Got it. Administrator Nimmich, do you acknowledge the statistics that Mr. Nelson referenced in regard to studies indicating that proactive investments in hazard mitigation generate cost savings?

Mr. NIMMICH. Yes, sir. I said it in my opening statement, and that is what the deductible——

Mr. GRAVES OF LOUISIANA. Great.

Mr. NIMMICH [continuing]. Process is trying to——

Mr. GRAVES OF LOUISIANA. Thank you. Do you see any of the work of the U.S. Army Corps of Engineers as being efforts to reduce hazards or address mitigation strategies?

Mr. NIMMICH. Sir, we work closely with the Army Corps of Engineers, and——

Mr. GRAVES OF LOUISIANA. If you could just—if you don't mind, just a yes or no. I would appreciate——

Mr. NIMMICH. Sir, I am not comfortable answering just a yes or no, but would do so for the record. We work very closely with the Army Corps of Engineers, and I do believe that an awful lot of their efforts go to reducing the impacts of potential future disasters. In North Dakota, they have worked very closely with the city of Fargo to be able to develop——

Mr. GRAVES OF LOUISIANA. All right.

Mr. NIMMICH [continuing]. Capabilities——

Mr. GRAVES OF LOUISIANA. Thank you. I will go ahead and answer these so I don't burn through all the time.

So you have the U.S. Army Corps of Engineers that spends money in addressing flood damage reduction projects, hurricane protection. The administration has budgeted, I believe it was, $1 billion competition, resiliency competition, through HUD. You have a climate resiliency fund the Department of the Interior is trying to establish under the last budget request. I think it was $2 billion. FEMA has a Hazard Mitigation Grant Program and a Pre-disaster Mitigation Program. Does it really make sense for us to have five different programs out there, all attempting to address various as-

pects? Are these properly coordinated? Are they properly prioritized?

And, you know, the reason I bring this up, I am from south Louisiana and we have had more than our share of disasters, whether it be Hurricanes Katrina and Rita coming up from the south, we had record high water on the Mississippi River in 2011 and again this year in January for the first time ever, in January of this year. We had Hurricanes Gustav and Ike in 2008, Hurricane Isaac in 2012. We have had more than our share of disasters.

And watching over and over again, as we come in and we have FEMA come in and pick up the pieces after a disaster, together with millions and millions of dollars spent by our parishes and spent by our State government, the Corps of Engineers in some cases—I can think of a project in St. John Parish, St. Charles Parish affecting Ascension, Livingston, and St. James Parishes, that that project has been in the study phase with the U.S. Army Corps of Engineers now for over 40 years, over 40 years.

Mr. Chairman, Mr. Ranking Member, my point here is that, look, everyone wants us to reduce disaster spending. Everyone does. The solution here, as I think Ms. Clark noted, Mr. Koon noted, the solution here is making the principal proactive investments in making our communities more resilient.

In recent years we have had FEMA, with their 500-year flood risk management regulations. We have had Biggert-Waters in 2012, the revisions in 2014. We have proposals now to increase the cost share associated with disaster response on our counties, on our parishes, and our State governments.

Mr. Chairman, my point is that making proactive investments is the solution to reduce our overall disaster expenses. We estimated that if we had spent somewhere around $8 billion or $9 billion, simply finished authorized projects in south Louisiana that were supposed to be built by the U.S. Army Corps of Engineers, we could have saved an estimated 90 percent of the about—and you can justify numbers—anywhere from about $120 billion to $150 billion that were spent in response to those 2005 hurricanes. We could have saved that. And not to mention—and very, very important—in fact, more important, Mr. Chairman, we think we could have saved over 90 percent of the 1,200 lives that were lost in south Louisiana.

So, all of these efforts by FEMA I think are being done in a vacuum. We need to be coordinating, better coordinating our efforts to be proactive, to protect and make our communities and our ecosystem more resilient, and stop all this coming in after the fact and spending exponentially more dollars. There are studies, there are models. Yet all we are seeing, rather than following the data, following the recommendations and the outcomes of these studies and these experiences following these catastrophic disasters, instead we are further making disparate investments in programs that aren't really contributing or heeding the recommendations of these reports. I am very concerned about what—this trend that we are seeing.

And lastly, Mr. Chairman, I just want to say that in south Louisiana much of our vulnerability is actually attributable to the actions of the Federal Government. We have lost 1,900 square miles

of our coast. The majority of that is because of how the Corps of Engineers manages the water resources in this Nation. That is why we have lost, that is why we have become more vulnerable.

Arkansas doesn't care when hurricanes come because Louisiana is their buffer. Our buffer is disappearing, and that is why you are seeing these costs.

And so I just want to urge the committee, Mr. Chairman, Mr. Ranking Member, as we move forward on legislation we need to make sure we don't get too myopic in this view, and that we are looking comprehensively at all of these efforts that are underway that, quite frankly, should be under this subcommittee's jurisdiction. I yield back.

Mr. BARLETTA. Thank you.

Mr. Sires?

Mr. SIRES. Thank you, Mr. Chairman. You know us. We learn from all these disasters.

Mr. Nimmich, we picked up how to better construct, do better codes, everything else. Why do you think some of these States are so reluctant to do this mitigation codes and reinforcement? Why do you think that is?

Mr. NIMMICH. Sir, I think the decision on building codes is almost always local, and those decisions based on other economic factors, desires for certain development.

But I do think that we, as the Federal Government, need to continue to ensure that when we invest, it is invested to codes. Currently, FEMA has out for comment with our stakeholder groups changes to our Public Assistance Program that would require whether a State has or a community has code or doesn't have code. If they don't, if they want us to build back their infrastructure, it will have to be built back to either a national or an international code.

So we are taking it very seriously to say even if a community doesn't feel that codes are of value, we do. And when we invest Federal dollars, we will build back to a code.

Mr. SIRES. You know, one of the things that bothers me about New Jersey is the fact that 3 years later we still have people that have not gone back to their homes. And there is plenty of blame to go around, you know.

I think that, in terms of these disasters, you not only have to mitigate it before, but I think there has got to be some sort of post-disaster, where you are ready to come in and watch over some of these guys that are the fraudulent applications and everything else, and not take years before we can come up with the people who are perpetrating a fraud.

And to me, I think you have to be ready right after the disaster. Can you talk to that?

Mr. NIMMICH. Yes, sir. And I can proudly say that we have moved rapidly since Katrina to ensure that we have programs that have as much protection as possible.

But I will tell you, sir, that if we have to err on the side of supporting a valid requirement and a fraudulent requirement, we are likely to support that requirement. But it takes time to go back and relook.

And as you know, in New Jersey now you are seeing the first cases of prosecution of fraudulent—where people have taken money from those that need to recover in their primary homes, claiming that their secondary home was a primary home, and taking those dollars away from those people that need it.

It does take time, and we have to realize that during that immediate post-disaster we want to make sure that those people that need the money get it. And there will be people that take advantage of it, but we don't give up. And as you said, sir, it may take too long, but we don't stop. We continue to go back and recoup those monies from people that fraudulently or accidentally applied for resources that they didn't deserve.

We are down below the national standard—from financial institutions in recovering money, down below 1 percent. So I think we do a pretty good job of ensuring that the money goes to those people who deserve it and need it.

Mr. SIRES. You know, I come around—I used to be one of these guys that you have to require certain things. And I come around a lot to providing incentives. Because if the Federal Government is going to give you some money, I think that mitigation codes or storm codes should be part of it.

I look at these disasters in the Midwest. I see these tornadoes, Oklahoma—I am not trying to single out Oklahoma, but it just seems that they get more than anybody else. And I see where schools are even damaged. You know, to me, if the Federal Government is going to give a State money to build a school, you should require a stronger code to build the schools. And I understand that these schools were built before. But, you know, going forward, I think that is something that we should look into, because some of the schools always—they serve as shelters, too, in some of these communities. And I see the damage in some of these schools and some of these homes.

So I think—I am coming around to the idea of incentives, Mr. Chairman, to provide these people so they can build the kind of codes that they need to deal with some of these disasters. Thank you.

Mr. BARLETTA. Thank you. I will now begin a second round of questions.

Commissioner Clark, I understand your district had major wildfires that destroyed a tremendous number of homes and property. Can you explain some of the challenges you have had trying to mitigate the risk of post-fire flooding? And do you have any recommendations for Congress to improve our mitigation programs?

Ms. CLARK. Thank you, Mr. Chairman. Yes, we have, obviously, had—and I don't know what fair share is, but we have had more than our fair share of disasters in El Paso County, Colorado. What I would like to talk about specifically is the things that I think we can do from the standpoint of local community resiliency.

And I think that what tends to happen—and it happens at the local level, at the State level, and particularly at the Federal level, is we have silos built up between agencies. The fire that happened in Waldo Canyon was almost more than 95 percent on Federal forest land. That pre-mitigation needs to happen from the Federal level, because that is Forest Service, and the Forest Service is now

spending more than 50 percent of its budget on—frankly, on responding to wildfires, versus pre-mitigating ahead of time. We have no control over that at the local level.

What we do have control over is working with fire-adapted communities, community wildfire protection plans, and providing incentives, as some have said up here, which is very important, but for individuals to be able to mitigate ahead of time, to provide firewise communities.

I was just up in, actually Crystal Park, which is a one-way-in, one-way-out community built up on the mountainside. And they have taken steps to do that. And some of those programs that help them buy fire equipment to be prepared locally, to take that ability to look at, from a personal standpoint, to be able to provide that mitigation, will be helpful. We tend to be really—you know, when we look at an ounce of prevention is worth a pound of cure, doing that pre-mitigation ahead of time.

I also think it is important to note that we have—when there is a disaster—and I have a small business, when the fire happened I lost thousands of dollars of reservations, and then we have this rolling disaster that keeps happening—to try and make sure that those that may not live in wildland interface areas, where the drainage all comes down into a small community, to be able to look at the fact that that mitigation immediately following the fire will provide the resiliency to slow down the debris and the large flash floods that happen as a result. And it is hard to understand, if you are not from Colorado, because—if you are not from a Western State that has those drainages that drain right down into it.

So I think tearing down the silos, understanding there is an impact on small business and how devastating that can be—one-third of small businesses go out of business after a major incident, and I think that that is really important, and looking at the flexibility in the requirements. Even though we want—we definitely want accountability, but sometimes the requirements preclude you from even asking for the particular money that you may otherwise need.

Mr. BARLETTA. We talked a lot today about how much the Federal Government pays out for disasters. But the other major payers in disasters are insurance companies.

Mr. Nelson, can you discuss how insured losses generally compare to the Federal assistance provided in the wake of a disaster?

Mr. NELSON. In the wake of a disaster it is the role of the insurance company to make that insured whole again. And so we are paying for the building, we are paying for the contents. If you are a small business, we are giving you business income interruption coverage. We are also providing additional living expense. And so significant dollars, compared to—you know, usually individual grants are small grants to consumers. They are not going to make you whole again. They are not going to be enough to rebuild your home, in general speaking.

So, it is important. The insurance industry plays a major role in natural disasters. And our trends, because of the weather volatility, we have been seeing those trends go up. And so this is an important concept because what do insurance companies do? We spread the risk over people and over time. And as the risk changes, the

prices change. And so it is important that we bend the cost curve for the Federal Government and bend the cost curve for consumers.

Mr. BARLETTA. Every one of you mentioned the importance of mitigation and how evidence shows that for every $1 invested, $4 is saved. Most Federal mitigation funding is provided through the Hazard Mitigation Grant Program after a disaster declaration.

I ask this of every one of you on the panel, if you could give a brief answer. How can we more proactively address the mitigation and shift the investment to before the catastrophe?

Mr. NIMMICH. Congressman Barletta, I think the first thing I need to do is again thank the committee and the Congress for the post-Sandy legislation that allows that mitigation money, that post-disaster mitigation money, to be identified much earlier in the process, and then be applied as part of the recovery process.

Clearly, as we look at all of the different mitigation programs we have—pre-disaster, in 2015 Congress gave us the authority to do post-mitigation or hazard mitigation for fire grants, to be able to restore those burned areas in a much more robust way. I would ask that we could consider reauthorizing that ability to use the fire mitigation grants as a hazard mitigation grant developer.

But the reality for us comes back to how do you incentivize every level, from the individual, through insurance programs, to the local to the county to the State and the Federal Government to be able to invest in that. We believe that the deductible offers that opportunity. We continue to need to work with our stakeholders to define what the reasonable level of a deductible should be, and then how do those building codes and the investments that Ms. Clark has indicated that the counties and the communities do reduce that deductible in order to be able to support those communities that have invested in their own well-being.

I do believe that it is mitigation that ultimately reduces the cost of a disaster, and we need to find proactive ways, as you have all indicated, to incentivize that approach.

Mr. BARLETTA. Ms. Clark?

Ms. CLARK. Thank you, Mr. Chairman. As it relates to the Hazard Mitigation Grant Program, it is a very important component of, I think, what communities need to be provided for. There are some issues, I think, within the HMGP programs that need more flexibility, however, in order to be able to utilize those funds best at the local level. We see sometimes that there is not an understanding of unique situations, and I will give an example

In 2012 was the Waldo Canyon fire. We just closed on three houses 2 weeks ago for several homes that were in the floodway as a result of a fire that happened on Federal forest land. They had never had flooding ever before, and it has taken us, really, that length of time to get that completed.

As it relates to, additionally, the Hazard Mitigation Grant Program, we at our Office of Emergency Management appreciate being able to utilize those dollars, but sometimes the accountability, where you may see it as accountability, the paperwork is so extreme for such a small amount of money that it makes it really unusable for us to even apply for the grants.

And so, we do take it very seriously, but I think sometimes those programs need to be looked at as how can those dollars actually get

to the folks that need the help and provide some additional assistance for those individuals who want to take personal responsibility for trying to reduce mitigation—to reduce the disaster, eventual disaster declarations, by looking at being proactive on their own personal property.

The Black Forest fire was almost entirely on private property. That was the second fire. So we have two different fires, and we have seen different problems in each of those.

Mr. BARLETTA. Thank you.

Mr. Koon?

Mr. KOON. Thank you, Mr. Chairman. The—as a director of the Florida Division of Emergency Management, I have the luxury of a fairly large staff and adequate funding. And so, every time there are new programs out there, every time there are new incentives, I have personnel whom I can assign to that to make sure that we take full advantage of that program.

However, a good number of States do not share that luxury, and a good number of the counties across the country do not have that same luxury. So every time a new program is put into place, they have to determine how they can help meet the needs of that program, because they are using current staffing, current year budgeting and the potential for a payoff down the road.

So I think a few things would assist in this effort. What would be—as Mr. Graves suggested, consider clarifying, consider consolidating, consider streamlining existing programs today, rather than creating just additional new programs, which would enhance the administrative burden on already overworked officials at the State and local level.

I think a better data analysis of the true costs of disasters and how they impact all levels will help us calculate the true return on investment for our participation in these programs, and help us make those decisions.

And finally, moving the mitigation cycle, moving the mitigation program forward, and so that it is not something we start thinking about on day one of the recovery, it is something that is done ahead of the disasters, so that if the funding comes along with that disaster, we are ready on day one with actionable mitigation plans to help—implementing those programs, and we don't rebuild exactly as we were before.

Mr. BARLETTA. Thank you.

Mr. Nelson?

Mr. NELSON. First, I just want to start with we have to get the word out about mitigation. There is a perception that mitigation costs so much money to consumers. Travelers, we are a proud supporter of Habitat for Humanity. We went out and we built a dozen fortified homes along the coast of America, and I personally participated in building one in New Haven, Connecticut. The average cost is only 2 to 5 percent on new construction. And so, we just have to make sure that consumers understand this. And so that is first.

Second, clearly, you got a difficult decision in front of us. You know, spending is so difficult in Congress today, everyone understands that. But we have to consider spending more at pre-disaster mitigation funds—again, proven techniques with IBHS and other

studies—and evaluate that, and evaluate streamlining some of these FEMA programs. Thank you.

Mr. BARLETTA. Mr. Mickey?

Mr. MICKEY. I think just as importantly, we have to understand that the action of mitigation is not simply something you do to check a box and get FEMA to sign a check over and move on. It is something that needs to be a proactive, positive investment to incentivize, again, those communities we are promoting through the institute to take positive actions.

Mr. BARLETTA. Thank you.

Ranking Member Carson?

Mr. CARSON. Thank you, Chairman.

Ms. Clark, disaster assistance reformed under the act of 2015, the committee calls for a very comprehensive study on trends and disaster costs and losses. As you mentioned earlier, local government bears a large portion of the disaster costs, yet data is very scarce. What is NACo doing to collect the information so that the data can be considered as part of the comprehensive study, and ensure that current Federal disaster costs are not just being shifted to local communities?

Ms. CLARK. I am assuming that is for me. I wanted to say that I think that that brings up a very——

Mr. CARSON. Or Mr. Koon.

Ms. CLARK. OK. I will start and then—I think that the—that local government really is here from the Government, and here to help. We want to know from you how we can best provide you the data and the information.

For those of us who have done this before—and in my case we have had four declared disasters, so we have got a lot of information. And I think it would be helpful to sit down with those communities that have been through the processes, and all the different silos, and to be able to have feedback from us on how to change things that—policies that may not be working in the best interest, first of all, of our communities and, secondly, of our local governments.

Mr. CARSON. OK.

Mr. KOON. Ranking Member Carson, the question you asked is a question that many of the folks asked as they were responding to the proposed deductible concept from FEMA, which is how do we capture all of those costs? What is the methodology? What is going to apply in that situation? Is it you go out and remove a tree that just fell in the road overnight, or do you—is there a certain threshold at which you start measuring those dollars? We still are having those kind of conversations to figure out exactly what costs do we need to capture.

But I do agree that it is very important that we do so because, again, that helps feed the return on investment calculations that we need to do in this situation.

The flip side of what I offered earlier—and the fact that I have a fairly large agency and a fairly adequate budget, is that the threshold for Florida to receive a Presidential declaration is also fairly high. And so, we can have a $10 million or $20 million or even a $25 million disaster in the State of Florida that will not be eligible for a Federal declaration. So every year the State of Florida

spends hundreds of millions of dollars internally at the State and local level to help us recover from those situations.

So I concur that we should develop methodology by which we can all operate off the same sheet of music when understanding what these costs are.

Mr. CARSON. Yes, sir. Thank you.

Mr. Nelson, you mentioned in your testimony that the Insurance Institute for Business and Home Safety simulating disaster conditions on homes and businesses in a controlled environment, you mentioned that. What types of adjustments to building codes has the institute found to be most effective in keeping a structure standing after a disaster? And how much would these changes cost during new construction?

Mr. NELSON. You know, IBHS, we have come out with a program called FORTIFIED. There's a bronze program. The bronze program concentrates on the roof coverings. And so we have looked at taping the roofs, the seams on the roof deck. And maybe that is about $500 to $1,000. And that prevents water intrusion in case you lose your shingles. So that is the first step.

The second step that is a proven technique is really bolstering all your openings, either covering your openings or putting some other reinforcements in place. And then the gold standard is looking at the building kind of end to end, looking how it is anchored at your foundation, through the walls, and to the roof.

And so, these are techniques that we are very happy to say some States have embraced. Alabama, coast of Alabama has now embraced the FORTIFIED standards within their codes and their coastal counties. And they have also put in a program to try and—for mitigation grants.

And so, we are seeing a lot of success with this program. We are even seeing some builders voluntarily building these homes.

Mr. CARSON. Thank you.

And lastly, for a fellow Hoosier, Mr. Mickey, The Polis Center provides valuable services necessary to understanding the disaster threat and risk. How does The Polis Center help us understand, make its services known to others, and can you expand on some of the successful collaborative projects with State and local entities that the center has taken?

Mr. MICKEY. Thank you for the opportunity to talk both about The Polis Center and, quite honestly, the State that I am very proud of, the State of Indiana.

Polis has been around since 1989. We have had 27 years of successfully linking community and academic expertise. Our goals are to build capacity in the State's agencies, the volunteer associations, the citizens of the State of Indiana, and so forth.

We have done a lot of work in emergency management, but the reason that we have been successful is not because uniquely of the resources in our center, but because of the atmosphere that exists in the State of Indiana.

Case in point, within Indiana we have had the privilege of working with the Indiana Department of Homeland Security to complete mitigation plans in close collaboration with the counties and cities and towns of the State of Indiana. The approach we take is highly collaborative. So, unlike many situations that we hear about where

a plan is created and set aside on a shelf, if you would—which, unfortunately, I think does often happen—that plan becomes a living document, something that the community is engaged in, that people are brought to the table to discuss and be a part of. And I think that is a critical component of making mitigation a success.

Part of the reason that we are also successful—and something I am exceedingly proud of—is in the State of Indiana we understand the importance of information. FEMA created a tool that I am sure many of you are aware of a few years ago called Hazus-MH. And Hazus has become a very significant part of the portfolio of resources in the State of Indiana that we use, the technology that allows communities to estimate the impact of hazards, specifically floods, earthquakes, and hurricanes, and they are able to do that in a more profound and successful way by integrating local resources.

In my State I am happy to say that we have 100 percent of the counties that, even though they have disagreements, to be sure, they have managed to find a way to agree to share information. So anyone, anywhere, any time can go out to the IndianaMAP and download every single parcel in the State of Indiana: road information, hydrology information, and of course, hazard information. That information, combined with other resources in the State, makes it possible for our citizens to be much better protected and much better able to respond to disasters than others might be.

We have taken that success story, I am proud to say, to other States as well. We are very much about building capacity. We have worked extensively in the States of Georgia, in West Virginia, in many other areas. In total, we have worked in over 36 States, including, I believe, every one represented by members of this committee, and over 100 cities.

Building capacity means building tools, it means building work flows, it means, very importantly, education. And not just in how to do hazard analysis, but also what that means to a community, in terms of its long-term resiliency.

We believe firmly in connecting the fabric of the community to the solution. So hunger, homelessness, issues like that are just as important in understanding how a community will or will not be resilient to a disaster as understanding whether a building is going to fall down or stay upright. And we look at all of those things and try to bring them together in a synergistic way in conversations with a lot of people to take advantage of that knowledge.

Mr. CARSON. Thank you, sir.

Thank you, Mr. Chairman. I yield back.

Mr. BARLETTA. OK. Mr. Graves?

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman.

Mr. Nimmich, the Biggert-Waters 12 directs FEMA to incorporate simulations of climate change into some of the estimates that you develop in regard to premiums. Could you discuss how FEMA is doing that, and how you are addressing uncertainties in regard to climate models?

Mr. NIMMICH. So through Biggert 12 we have been required to use the best science possible to determine the flood risk map, sir, and we continue to work with the scientific community and local communities to be able to identify what those potentials might be

in the future, in terms of climate adaptation, particularly with the rising tides in flood zones.

Mr. GRAVES OF LOUISIANA. Yes. And so the question is how do you plan to address the uncertainties in regard to the models of future sea rise and potential for storm intensity changes and things along those lines?

Mr. NIMMICH. Sir, I will answer that for the record.

Mr. GRAVES OF LOUISIANA. Thank you. Another question. The Technical Mapping Advisory Council that was established, they indicated in a recent report that they believe that there was about a 40-percent uncertainty rate associated with some of the flood models that were used.

If you take that degree of uncertainty, which is extraordinary, and you put on top of it trying to estimate future changes in sea rise, future changes in the potential for storm intensity and frequency, it seems like we are getting to a range of uncertainty that—it is just no longer helpful to even use those types of models and predictive information. Could you comment on that?

Mr. NIMMICH. Yes, sir. I don't think you can go to the extent of not using some sort of a model or a predictive capability when you are trying to determine whether mitigation and preventative actions need to be taken. So, while there is a certain degree of uncertainty, we continue to use the best available information, based on a wide range of scientific data that is available.

Is there uncertainty? There is always uncertainty in it. But we have to start somewhere to be able to create a basis on which the risk exists in the community.

As you well know, sir, in your area we have just experienced floods in northern Louisiana that no one would have expected, based on the science that was there. So there is a great deal of uncertainty when you deal with any weather event. So we need to continue to find the best science at the time that we create the risk map and then, as often as possible, come back and reevaluate that science.

Mr. GRAVES OF LOUISIANA. Yes, and I certainly concur that we need to be using the best information we can in regard to informing decisions. The concern is that, as you know, there are significant consequences of determining flood maps and NFIP premiums. And with your 500-year flood risk management, there could be significant and severe financial implications.

My point is that, having such severe implications, yet having so much uncertainty with the predictive models, that is not necessarily a very comfortable combination of issues. And I just want to urge, as you move forward, that you keep that in mind, that—you need to keep in mind the reliability of the information and models, and take into account the consideration of financial implications on counties, parishes, and others, moving forward.

Director Koon, first I want to say that I know a number of people that know you, and you have a great reputation. Thank you for being here. And I appreciate your testimony.

A week before last, Congress—the House of Representatives passed H.R. 2901, which was legislation—and Mr. Nelson, excuse me, I am going to ask you a question on this, as well—that bill, what it does is it begins—or it allows for private flood insurance

to serve effectively as a surrogate for the NFIP. Sounds like a good idea. Private sector, in many instances, could be more efficient than Government can.

So, face value, sounds like it is a good idea. However, being from your area, being from the area where I was born and live, I am very concerned that what we are going to see is we are going to see private insurers that come in that start cherry-picking the policies that have the lowest risk.

And so, what ends up happening under Biggert-Waters 12 and the reforms in 2014 is you are left with the policies that have higher risk.

Now, Biggert-Waters 12 and the revisions from 2014 require that the loan that was given to NFIP following the 2015 floods, that it be repaid. It requires that a reserve fund be established. It requires that actuarial rates be charged under flood insurance.

So my point is that the private sector insurance companies aren't going to have those same financial burdens. All they are going to have is whichever policies they choose. The NFIP is going to have now a smaller pool of ratepayers because the private sector is pulling some of those off. So you are going to have the higher risk, small pool that are still going to be subjected to establishing a reserve fund, paying off this debt of, whatever it is, $17 billion.

Are those concerns—am I—should I not be concerned about this? Is there something there that we should be concerned about, and should NFIP reform be more comprehensive than just doing H.R. 2901?

Mr. KOON. Thank you for the question, Congressman. And I think, actually, the debt is closer to $23 billion on the National Flood Insurance Program.

Mr. GRAVES OF LOUISIANA. Thank you.

Mr. KOON. I think they would like to get to $17 billion.

The answer—my opinion is that there needs to be more comprehensive reform of the National Flood Insurance Program. And I would urge this committee to become engaged with that conversation next year, when it is up for reauthorization, to work with the Committee on Financial Services on that, because there is lots of components of the National Flood Insurance Program that I think directly relate to the conversation we are having here today with regards to mitigation activities that can take place across the country.

One of the things that I express quite frequently in the State of Florida—and did so just yesterday before the Governor's Hurricane Conference general session—as a result of some of the actions during Biggert-Waters of 2012, we have seen a significant reduction in the number of flood insurance policies across the country, and specifically in the State of Florida. The State of Florida has lost over 10 percent of the flood insurance policies. We have gone from just north of 2 million flood insurance policies in the State to about 1.8 million.

What that means is those citizens, the next time they have a disaster, next time they have a flood in their community, they are not going to be able to recover like they would have, had they had flood insurance, and there will be additional costs imposed upon the Federal Government because they may now be eligible for assistance

from FEMA. They may be eligible for assistance from the State, et cetera. So those costs are going to be borne by the individuals, those costs are going to be borne by Government.

So a comprehensive analysis and reform of the National Flood Insurance Program, I believe, is completely appropriate at this point.

Florida, last year in the legislative cycle, did do some things to reduce some of the regulatory burdens on private flood insurance in the State of Florida. And so now there are private insurers offering flood insurance policies in the State. It is very nascent at this point. There is probably 2,000 to 3,000 private flood insurance policies in the State, but it is a start.

I do share your concern about some of the cherry-picking aspects, and I am not an insurance expert, and I will defer to Mr. Nelson on that, but we have had a similar situation in the State of Florida with the Citizens Insurance Company and the wind-borne insurance. They have depopulated a large segment of their policies to the private market, and still remained financial feasible. So I believe Mr. Nelson may be able to elaborate on that a little bit.

But I believe, again, comprehensive reform of the National Flood Insurance Program is absolutely appropriate at this point, and can tie in some of the mitigation activities that we have discussed thus far.

Mr. NELSON. Thank you. First, let me say I would echo your concerns that you are raising. I think those are profound issues that we have to evaluate. So——

Mr. GRAVES OF LOUISIANA. Mr. Chairman, for the record, I just want to note that he called me profound.

[Laughter.]

Mr. NELSON. So the—I do think, if you just step back for a minute, Travelers—let me just back up. Travelers, we do write flood insurance on a commercial basis for commercial insurance. We do not write homeowners flood insurance and we have no plans to enter that market. We also do not have a formalized position on this, I will just express my own points of view.

So when you look at it—I have looked at a lot of the FEMA rate plans—I think they need to modernize their rate plans. The private industry should not be able to compete with FEMA on price. Remember, we have to buy reinsurance. We have to have enough capital to meet our obligations. That means we have to have a pool of money. Typically, that is our shareholders' money, so they have to get a return on that. We should not be able to compete with FEMA.

And so you step back, their plan needs to be modernized. Their rate plan, I have looked at it, it is not at all consistent with how the private sector looks at insurance, sells insurance, and has a rating plan. So let's start with that, let's modernize the program, and then let's evaluate how we can privatize to think about that cherry-picking aspect. Thank you.

Mr. GRAVES OF LOUISIANA. Thank you.

Thank you, Mr. Chairman, for your generosity.

Mr. BARLETTA. Thank you. And I think Mr. Graves made a good point earlier, that Congress needs to look across the Federal Government, including levees and flood control projects, when we try

to bend the cost curve of disasters. The disaster cost study in our FEMA authorization bill should help and make such recommendations to Congress.

And I also want to thank Administrator Fugate for the disaster deductible proposal. I don't know if it is the right solution, but we need a vigorous debate and innovative ideas if we are to drive down losses and not just shift costs between payers.

And I want to thank you all for your testimony. Your comments today have been helpful in our discussion. If there are no further questions, I would ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing, and unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

[No response.]

Mr. BARLETTA. Without objection, so ordered.

I would like to thank our witnesses again for their testimony today. If no other Members have anything to add, this subcommittee stands adjourned.

[Whereupon, at 11:47 a.m., the subcommittee was adjourned.]

STATEMENT OF
THE HONORABLE ANDRÉ CARSON, RANKING MEMBER
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

"Controlling the Rising Cost of Federal Response to Disaster"

May 12, 2016

Good morning and welcome to today's hearing.

While we have several prominent witnesses today, I would especially like to welcome Mr. Kevin Mickey from the great Hoosier State. Mr. Mickey is the Director of the Polis Institute at the Indiana University Purdue University Indianapolis. He is also the new Chair of the Multi-hazard Mitigation Council of the National Institute of Building Sciences. I look forward to my colleagues learning about the work being done in Indianapolis to address rising disaster costs and losses, plus the latest report from the Multi-hazard Mitigation Council. Mr. Mickey's national leadership and his local work are terrific examples of what Indianapolis is doing in the field of emergency management.

Today's hearing is important because there is no disputing that disaster costs and losses are increasing. Last year, the Subcommittee held several Roundtables on the trends in rising disaster costs and losses, and we discussed some of the causes. These Roundtables were informative and have led to today's hearing on potential solutions to control disaster costs.

There are many suggestions on how to reverse the trend of increasing costs and losses. One consistent recommendation is investing in mitigation before a disaster occurs. The Multi-hazard Mitigation Council and the Congressional Budget Office have both found that investing in pre-disaster mitigation saves $3 to $4 for every dollar spent. This is why I introduced HR 830, the Pre-Disaster Mitigation Act to reauthorize the program. I urge the Committee to move this legislation as soon as possible.

Last year, Congress increased its investment in FEMA's Pre-Disaster Mitigation program. I was disappointed that the President did not request a similar amount for Fiscal Year 2017. But Chairman Barletta and I wrote to the Appropriations Committee urging Congress to maintain the Fiscal Year 2016 funding level. More than 80 Members of Congress, from both sides of the aisle, joined us in this effort. I will keep working with my friend and chairman, Mr. Barletta, to continue leading efforts that ensure Congress invests in this valuable program.

Our Nation needs an arsenal of solutions to truly become resilient and to lower disaster costs and losses. Other good bills have been introduced to address this issue and we may hear about some of those ideas today, as well as new proposals for Congressional action. Even with all the options, we still need an effective strategy to get the public and private sector to actually take the steps needed to become more resilient locally and nationally.

Finally, the House passed the H.R. 1471, the FEMA Disaster Assistance Reform Act of 2015, in February. That bill included a study on disaster costs and losses and requests possible solutions. I look forward to Senate action on this bill before this Congress ends so that the study can go forward and we can get the data needed to pursue and implement effective solutions.

Thank you.

STATEMENT

OF

THE HONORABLE JOSEPH NIMMICH
DEPUTY ADMINISTRATOR

FEDERAL EMERGENCY MANAGEMENT AGENCY
U.S. DEPARTMENT OF HOMELAND SECURITY

BEFORE
THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

"Controlling the Rising Cost of Federal Responses to Disaster"

Submitted
By

Federal Emergency Management Agency
500 C Street, S.W.
Washington, D.C. 20472

May 12, 2016

Introduction
Good morning, Chairman Barletta, Ranking Member Carson, and members of this subcommittee. My name is Joseph Nimmich and I am the Deputy Administrator of the U.S. Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA). Thank you for the opportunity to testify today about FEMA's efforts to control the costs of federal disaster response and serve as good stewards of taxpayer dollars.

During a disaster response, FEMA's goal is to support disaster survivors through effective, efficient operations. We strive to meet the needs of disaster survivors and impacted communities while being careful with taxpayer money to get the most out of the funds we allocate. Though FEMA has plans in place to control costs during a disaster response, it is important to note that one of the most effective ways to accomplish a reduction in post-disaster costs is to build more resilient communities before a disaster strikes, thus reducing the physical and financial impacts of the event.

FEMA's efforts are driven by our 2014-2018 Strategic Plan. The plan was developed with hundreds of FEMA employees and external partners who are now working together to execute the plan's five strategic priorities:

- Be survivor-centric in mission program and delivery
- Become an expeditionary organization
- Posture and build capability for catastrophic disasters
- Enable disaster reduction nationally; and
- Strengthen FEMA's organizational foundation

In my testimony today, I will outline some of FEMA's programs dedicated to reducing risk across the country. I will also review our efforts to control FEMA's administrative disaster response costs. Finally, I will discuss our proposal to update the Public Assistance (PA) program requirements by introducing a Disaster Deductible concept, which aims to better apply state, territorial, and tribal financial capabilities while incentivizing resilience and mitigation practices.

Risk Reduction: Lessening the Physical and Financial Impacts of Disasters
Mitigation efforts taken before disasters strike can significantly lessen their financial impacts on the nation. The most effective mitigation tools include establishing stringent building codes and standards for the local environment, thus ensuring property is built to insurable levels.

The National Institute of Building Sciences' Multi-hazard Mitigation Council estimates that for every dollar FEMA invested in mitigation between 1993 and 2003, society as a whole saved four dollars due to reduced future losses. Mitigation programs save the American public an estimated $3.4 billion dollars annually through a strategic approach to natural hazard risk management, including the value of more stringent building codes.

FEMA has made significant strides in the last few years, bringing the larger mitigation community together around shared doctrine and providing communities the funding, tools, and information they need to make informed, data-driven decisions that minimize their risk.

Federal Hazard Mitigation Assistance (HMA) Programs
FEMA oversees and manages three HMA programs: the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program and Flood Mitigation Assistance (FMA) program, all of which provide funding to state, local, tribal, and territorial governments for hazard mitigation projects. Local governments, and tribal governments, when acting as sub-applicants, are responsible for applying for funding through the state, managing approved projects, and maintaining records. States manage the overall mitigation program within the state, establishing funding priorities and selecting projects for funding based on those priorities.

National Flood Insurance Program
The National Flood Insurance Program (NFIP) serves as the foundation for national efforts to reduce the loss of life and property from floods, the most costly and frequent disaster in the United States. The program identifies areas at risk for flooding and makes flood insurance available in participating communities. The NFIP works in close partnership with private insurance companies to market, sell, administer, and adjust claims for policyholders. By encouraging mitigation and floodplain management efforts, the NFIP is estimated to save the nation $1.6 billion annually in avoided flood losses.

FEMA also administers the Community Rating System (CRS) to incentivize communities to implement floodplain management practices by offering lower NFIP insurance premiums to participating communities. These practices can include: requiring new buildings to be constructed above the base flood elevation; maintaining floodplain areas as open space; and educating the public on best practices.

Encouraging Mitigation throughout the Nation
As part of FEMA's effort to enable disaster risk reduction nationally, FEMA leverages its partnerships, programs, risk information, and tools to advance risk-based decision making across the nation. This effort helps build community resilience by ensuring a common risk picture, better targeting of resources, and a collaborative national effort to build the capabilities that will best address targeted risk areas. Focus areas to enable disaster risk reduction nationally include:

- Enabling better, risk-informed decision-making by improving the quality, accessibility, and use of risk information and allowing for more data-driven decision making. For example: by updating flood hazard maps to include advisory base flood elevations (ABFEs) when appropriate after a major flood event, and by continued implementation of the Threat and Hazard Identification and Risk Assessment (THIRA) process.
- Encouraging our state, local, tribal, and territorial partners to adopt up-to-date, stringent building codes to address hazards in their area.
- Integrating the Public Assistance and HMA programs so they work together and concurrently. By folding mitigation into the rebuilding process of damaged public infrastructure, federal dollars spent now will foster a more resilient community before the next disaster.

On January 14 2013, the House passed H.R. 219, the *Sandy Recovery Improvement Act of 2013 (SRIA)*. Pursuant to H. Res. 23, the text of H.R. 219 was added to H.R. 152, *the Disaster Relief Appropriations Act, 2013*, which after passing the House and Senate was signed into law by President Obama on January 29, 2013 as P.L. 113-2. SRIA authorized several significant

changes to the way FEMA delivers disaster assistance, including directing FEMA to streamline HMGP activities and implement the program in a timelier manner. SRIA, and the additional authorities it provided, continues to aid efforts to emphasize and improve mitigation across the nation.

On January 30, 2015, the President issued Executive Order (E.O.) 13690 which amended E.O. 11988 and established the Federal Flood Risk Management Standard (FFRMS). The FFRMS seeks to improve floodplain management by encouraging the use of natural features and nature-based approaches in the development of alternatives for Federal actions, and by providing a higher vertical elevation and corresponding floodplain, where appropriate, to address current and future flood risks. E.O. 13690 requires each agency, in consultation with the Water Resources Council, Federal Interagency Floodplain Management Task Force, FEMA, and Council on Environmental Quality, to issue or amend existing regulations and procedures to comply with the Order. FEMA proposes to amend its regulations addressing floodplain management and protection of wetlands to comply with this requirement.

Supporting Hazard Mitigation Planning
Mitigation plans are the foundation for effective hazard mitigation at the state, local, tribal, and territorial levels. The mitigation planning process includes hazard identification and risk assessment, which help planners create a comprehensive mitigation strategy for reducing risks to life and property. A mitigation plan identifies a range of specific actions and projects being considered to reduce risks to new and existing buildings and infrastructure. The plan also outlines how these activities will be prioritized, implemented, and administered.

FEMA's Hazard Mitigation Grants and Planning Group supports state, local, tribal and territorial participation in the Agency's mitigation programs, and provides technical assistance as they develop multi-hazard mitigation plans. FEMA also provides funds for communities to develop plans under FEMA's HMA programs. These funds are provided to help state, local, tribal, and territorial governments with the resources they need to develop mitigation plans, which are required for receipt of HMA funding.

Reducing Administrative Costs during Disaster Responses
In our 2014-2018 Strategic Plan, FEMA outlined a goal to: "By the end of 2018, reduce the average annual percentage of administrative costs for field operations, as compared to total program costs, by five percentage points."

Over the past few years, FEMA instituted several changes to the way we manage disaster operations that have reduced administrative costs and increased operational efficiencies while ensuring continued focus on improving the delivery of disaster assistance to communities and survivors. These changes include:

- Creating and providing, as a management oversight tool, recurring tracking reports on disaster spending.
- Establishing "virtual" Joint Field Offices (JFOs) at existing Regional Offices and combining field operations for multiple disasters when it makes sense for both FEMA and the communities and survivors affected, thereby avoiding and saving significant costs including, but not limited to: facilities, security, communications, and travel.

- Improving the way FEMA manages information technology requirements, including telecom services, to reduce costs and enhance the delivery of services to survivors.
- Centralizing administrative functions when appropriate to standardize processing, increase customer service, and reduce costs, particularly travel and personnel costs, including overtime.
- Changing the way we manage disaster staff overtime to improve both operational efficiencies and substantially reduce overtime costs.
- Making increased use of locally-hired disaster staff at JFOs and disaster closeout facilities to reduce salaries and travel costs.
- Improving the utilization of FEMA Corps and Incident Management Cadre of On-Call Employees (CORE).

To further institutionalize these changes and meet our goal, in 2016, FEMA developed the Plan to Reduce Disaster Administrative Costs. This plan describes FEMA's approach to managing administrative costs on disaster operations; identifies work underway to develop processes, policies, and guidance to improve disaster management agency-wide; and explains how FEMA will define and measure disaster administrative costs and hold itself accountable to the Strategic Plan. Specifically, FEMA is improving business processes involved in managing its disaster grant programs; creating additional doctrine and directives for field operations to increase standardization; and creating greater transparency in administrative cost reporting to assist leaders across the agency in managing disaster costs.

While FEMA is aggressively pursuing disaster administrative cost reductions, the Agency will continue to be aggressive in supporting rapid stabilization of disasters, ensuring the provision of life-saving and life-sustaining support and the transition of survivors into interim housing is neither slowed nor impeded in pursuit of efficiency.

Disaster Deductible Concept

FEMA is committed to looking towards the future for new opportunities to more effectively implement our programs and reduce disaster risk throughout the nation. Members of Congress, the Government Accountability Office (GAO), and the DHS Office of Inspector General (OIG) have issued audits and reports recommending that FEMA consider changes to the Public Assistance declaration process, concluding that the current per capita indicator is artificially low and an insufficient measure of state, local, tribal, and territorial capability.

FEMA agrees that we must more accurately assess states' capabilities and capacities, and encourage and incentivize states to improve their ability to respond to disasters. To this end, FEMA is exploring a Disaster Deductible concept that, if executed, would enable us to better assess capacity to rebuild public infrastructure following a disaster event, while also creating incentives for states to build capabilities and engage in mitigation strategies to improve resilience before a disaster occurs.

With the Disaster Deductible concept, states would have to meet a predetermined financial commitment, similar to meeting an insurance deductible, as a condition of receiving post-disaster Public Assistance for restoration of damaged facilities. This deductible could be significantly reduced, however, prior to any disaster through credits provided for state investments in

resilience, such as adopting standardized and enhanced building codes or investing in mitigation projects. Most, if not all, states are already investing in resilience and the provision of credits would formally recognize, incentivize, and establish such investments as best practices across the nation.

The Deductible concept would add predictability for states ahead of disasters by allowing them to know in advance the financial commitment they would be expected to provide prior to receiving federal disaster assistance under the PA program. This would allow states to better plan and budget for response and recovery. The concept could also incentivize states to implement mitigation strategies and promote risk-informed decision-making that will build resilience while also reducing the costs of future events for both states and the federal government.

This would be a significant change to how we currently implement the PA program, and for that reason we are engaging our partners at the very beginning of this process for their input. From January to March 2016, FEMA solicited comments through an Advance Notice of Proposed Rulemaking (ANPRM) on the Deductible concept, including how FEMA might calculate a state's Deductible, the scope of the financial commitment that might be required, how states could satisfy the Deductible, how this concept could influence change, implementation considerations, and the estimated impact on the states' and the nation's risk profiles.

During the 60-day public comment period, FEMA received 150 responses. FEMA is currently evaluating this extensive input to refine the Deductible concept and develop a plan for further public engagement that may include publication of a Notice of Proposed Rulemaking (NPRM) in the coming months. An NPRM would provide a detailed proposal for a Deductible program that would include an explanation of how Deductible amounts would be calculated, identify specific credits states could apply for, and detail how the Deductible would be applied post-declaration.

Conclusion

FEMA strives to build a more resilient nation and support disaster survivors while being good stewards of taxpayer dollars. We continue to look for innovative ways to incentivize risk reduction, promote hazard mitigation planning, and efficiently implement our recovery programs in order to reduce both the risks and costs to the American taxpayer.

Thank you for the opportunity to testify today. I look forward to any questions the subcommittee may have.

Statement of

The Honorable Sallie Clark
Commissioner, El Paso County, Colorado
on behalf of the National Association of Counties

before the

Committee on Transportation and Infrastructure's Subcommittee on
Economic Development, Public Buildings, and Emergency Management
U.S. House of Representatives

for the hearing

"Controlling the Rising Cost of Federal Responses to Disaster"

May 12, 2016

Washington, D.C.

Thank you, Chairman Barletta, Ranking Member Carson and members of the U.S. House of Representatives' Committee on Transportation and Infrastructure's Subcommittee on Economic Development, Public Buildings, and Emergency Management for this opportunity to testify on "controlling the rising cost of federal responses to disaster."

My name is Sallie Clark and I serve as President of the National Association of Counties (NACo). I am an elected county commissioner from El Paso County, Colorado and have served the residents of my county in this capacity since 2005.

About NACo

NACo is the only national organization that represents county governments in the United States, including Alaska's boroughs and Louisiana's parishes. Founded in 1935, NACo assists America's 3,069 counties in pursuing excellence in public service to produce healthy, vibrant, safe and resilient communities.

About America's Counties

Counties are highly diverse, not only in my state of Colorado, but across the nation, and vary immensely in natural resources, social and political systems, cultural, economic and structural circumstances, and public health and environmental responsibilities. Counties range in area from 26 square miles (Arlington County, Virginia) to 87,860 square miles (North Slope Borough, Alaska). The population of counties varies from Loving County, Texas, with just under 100 residents, to Los Angeles County, California, which has a population that, at close to ten million people, exceeds that of most states. Overall, of our nation's 3,069 counties, approximately 50 percent have populations below 25,000. At the same time, there are more than 120 major urban counties, which collectively provide essential services to more than 130 million people each day. If you've seen one county, you've seen one county, and there are 3,068 more to go.

Counties also often serve as our nation's first line of defense before and after disasters strike. While state statutes and organizational structures vary, local emergency management responsibilities are most commonly vested in county governments. Following a disaster, local elected officials are often first on the scene, along with our emergency managers – who play a key role in coordinating local emergency management efforts and working to mitigate damage from disasters. Other key county staff involved in pre- and post-disaster efforts include local police, sheriffs, firefighters, 911 call center staff, public health officials and public records and code inspectors. In the aftermath of disasters, we coordinate and help fund clean-up, recovery and rebuilding so that our residents can return to their lives as quickly as possible.

Furthermore, because counties are major owners of public infrastructure, we are also uniquely positioned to mitigate against disasters before they occur, so that their impact on our communities and residents' live is decreased. Collectively, we own 45 percent of America's roads, nearly 40 percent of bridges, 960 hospitals, more than 2,500 jails, more than 650 nursing homes and a third of the nation's airports. We also own and maintain a wide variety of public safety infrastructure, including roadside ditches, flood control channels, stormwater culverts and pipes, Municipal Separate Storm Sewer Systems (MS4), and other infrastructure used to funnel water away from low-lying roads, properties and businesses.

About El Paso County, Colorado

El Paso County lies in east central Colorado and encompasses more than 2,100 square miles, about twice

the size of the state of Rhode Island. While the county is considered urban, with a population close to 640,000, it features a diverse mix of urban, suburban and rural areas, including 113,857 acres of federal lands. The western portion of El Paso County is extremely mountainous, while the eastern portion is largely prairie land with strong agricultural components.

I am especially grateful for this opportunity to offer the local perspective on the topic of disasters, because in the past several years, El Paso County has been devastated by a seemingly unending series of wildfires and floods that have upended and – in the most tragic cases – taken our residents' lives, strained our local economy, fundamentally changed the landscape of our county and caused enough damage to prompt four presidential disaster declarations. The 2012 Waldo Canyon Fire, the most destructive in Colorado's history at the time, burned from June 23 to July 10, 2012 in the Pike National Forest and its surrounding areas. The fire ultimately destroyed over 18,000 acres and 436 homes, forcing the evacuation of more than 32,000 residents in El Paso County.

In 2013, as we were working to recover from the Waldo Canyon Fire, we were hit by the Black Forest Fire, which surpassed its predecessor in scale and remains the most destructive wildfire in Colorado history. Over a nine-day period, over 14,280 acres (22.31 sq mi) were burned, at least 509 homes were destroyed, and we lost two of our residents. The evacuation area covered 94,000 acres (147 sq mi), 13,000 homes and 38,000 people, and we had to establish three shelters for those affected by wildfires. At the end of this horrific ordeal, the value of lost homes in El Paso County totaled over $90 million and the cost of fighting the fire alone was estimated at over $9 million.

In September 2013, just months after the Black Forest Fire, Colorado's Front Range was hit with storms resulting in catastrophic flooding, in some places causing landslides and mudslides, which affected an area stretching from Colorado Springs in El Paso County all the way north to Fort Collins, spanning 21 counties overall. 1,852 homes were destroyed, another 28,363 homes were damaged, and more than 18,000 residents were evacuated – some of whom are still unable to return over two years later. All told, 10 lives were lost in the disaster, and the value of property lost has been estimated at nearly $4 billion, including $600 million in watershed recovery costs and $624 million in housing costs alone.

Between May 4 and June 16, 2015, the state of Colorado was again hit by a series of severe storms, coupled with tornadoes, flooding, landslides and mudslides that resulted in another presidential disaster declaration covering El Paso County and 14 other Colorado counties. Colorado Springs alone suffered about $8 million in damages between May 3 and May 12, leading Mayor Steve Bach to sign a disaster declaration for the city. This declaration came before multiple additional storms hit Colorado over the next month.

These disasters have significantly changed our landscape; the county – which long ago inspired Katharine Lee Bates to write the famous words of "America the Beautiful" – is now home to charred, barren hillsides, and the vegetation that once protected the area from stormwater runoff has disappeared, paving the way for dangerous flash floods. As we work to recover from these devastating disasters, our county is fully committed not just to recovery, but also to mitigation efforts – both pre- and post-disaster – including improvements to our infrastructure through public safety projects. Through these efforts, in which we have invested more than $50 million to date, we hope to help our residents and businesses bounce back from the impact of the disasters we have faced and become more resilient in the face of the disasters that, unfortunately, will inevitably strike El Paso County in the future.

Controlling Federal Disaster Costs: the Local Perspective

Counties are not merely stakeholders in this conversation, but a part of the federal-state-local partnership of governments that together share the responsibility of protecting our nation and its residents from disasters. Like the federal government, counties are entrusted by taxpayers with providing a variety of important services to their residents, and we understand and appreciate that rising expenditures in any single category will necessarily detract from other needed services. As such, NACo shares the Subcommittee's concern with the rising cost of disasters, and we stand ready to work with our federal partners to assess policy changes that could help to decrease these costs, to the benefit of federal, state and local governments and the residents and communities that we collectively serve.

Mr. Chairman, I will focus my remarks today on three principles that we believe the Subcommittee should observe as you consider policy changes aimed at decreasing federal spending on disasters:

- **Federal spending on disasters should be viewed in the context of corresponding spending by state and local governments, and the capacity of each level of government to fund disaster recovery efforts.** An accurate and comprehensive assessment of disaster expenditures from federal, state and local governments – which together share the responsibility of protecting our nation's residents from disasters and helping those residents recover when disasters strike – is necessary in determining whether federal spending should be decreased.

- **Federal disaster expenditures should decrease only as a result of disasters becoming less costly overall, rather than through cost shifts to state and local governments, as such cost-shifts would place additional strains on those governments' budgets, in turn compromising their ability to respond to disasters.** Proposals and recommendations put forth by federal entities in recent years carry the risk of this sort of cost shift, which may achieve the goal of decreasing federal spending, but would do so at the expense of state and local governments and the residents they serve.

- **Local disaster mitigation efforts – both those that take place before disasters strike and those undertaken following a disaster – have proven effective at decreasing the overall cost of disasters, and should be supported and incentivized by the federal government.** Counties are uniquely positioned to implement mitigation efforts through their regulatory authorities and convening powers, and collaboration with the federal government helps counties better utilize their own resources and authorities to mitigate the damage caused by disasters and decrease the impact and costs of future disasters for all levels of government.

By observing these principles – which are elaborated upon below – as you assess policy changes that could decrease federal disaster spending, the Subcommittee can lessen the likelihood of achieving savings in federal spending at the expense of state and local governments, and instead promote policies that foster crucial federal-state-local collaborations that decrease the cost of disasters for all levels of government and make America's communities more resilient when disasters strike.

Federal spending on disasters should be viewed in the context of corresponding spending by state and local governments, and the capacity of each level of government to fund disaster recovery efforts.

Numerous studies have demonstrated that major disasters and their associated costs have increased significantly – perhaps as much as five-fold – over the last several decades. These increases have been attributed to various causes, including changes in weather patterns and population growth, especially in

areas that are prone to disasters. It saddens me to say that few areas in the country have experienced this increased prevalence of disasters more acutely than El Paso County. Overall, according to analysis of FEMA data by NACo's Research Department, 92 percent of counties across the nation had at least one FEMA declared disaster between January 2006 and May 6, 2016. In short, we are well aware of the rising cost and toll of disasters.

We are also well aware that the federal government's expenditures related to major disasters have increased significantly during the last half-century, both in terms of the amount of spending and as a percentage of our nation's gross domestic product. While NACo appreciates the Subcommittee's concern with this increased spending, we urge you to consider federal disaster spending in the context of corresponding expenditures by state and local governments, and the capacity of each level of government to fund recovery efforts. It is our collective responsibility to protect our nation and its residents from disasters, and we must assess each level of government's contributions to this cause in the context of overall spending by all levels of government.

While comprehensive data on levels and trends of disaster spending by state and local governments is scarce, there is evidence that the vast majority of disasters that strike our nation are handled by these governments without aid from federal partners. According to materials published by the Federal Emergency Management Agency (FEMA), "although the exact number of disasters successfully handled without requests for federal assistance is not known, it is estimated at 3,500 to 3,700 annually." [1] Meanwhile, only about 35 disasters per year received major declarations triggering federal assistance between 1953 and 2014 – although the rate of declarations has increased in each decade during that period, and of course, disasters that receive major declarations are the costliest. [2] Nonetheless, it seems clear that state and local governments spend significantly on disasters, to say the least, and federal disaster spending should not be assessed without consideration of this fact.

It is also important to consider the economic impact of disasters on local governments, beyond just their disaster expenditures. County economies thrive when small businesses in their communities are thriving and creating tax revenue. When disasters strike, small businesses are impacted, and in turn, county economies suffer. According to a 2010 study by the National Federation of Independent Businesses, nearly a third of small businesses fail to recover following a presidentially-declared disaster or emergency.[3] In this way, counties and their local communities continue to suffer the impact of disasters long after the event has ended, and in ways that are more difficult to quantify than the amount of their expenditures.

Furthermore, it is important to consider the respective fiscal capacity of federal, state and local governments when assessing contributions to our nation's recovery from disasters. Counties nationwide continue to be challenged by fiscal constraints and strained budgets, and according to a report released by NACo earlier this year, only 214 of the nation's 3,069 county economies have fully recovered to their pre-recession levels.[4] Moreover, county governments in more than 40 states operate under restrictive revenue constraints imposed by state policies, including caps on property taxation that limit counties' ability to raise additional funds in the face of rising disaster costs.

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[1] https://training.fema.gov/emiweb/downloads/is7complete.pdf
[2] Stafford Act Declarations 1953-2014: Trends, Analyses, and Implications for Congress https://www.fas.org/sgp/crs/homesec/R42702.pdf
[3] https://www.dhs.gov/news/2011/09/29/written-testimony-associate-fema-senate-committee-small-business-and
[4] http://www.naco.org/resources/county-economies-opportunities-challenges

An accurate and comprehensive assessment of the disaster spending and fiscal capacities of state and local governments – which share with the federal government the responsibility of protecting our nation's residents from disasters and helping those residents recover when disasters strike – is necessary in determining whether federal spending should be decreased.

Federal disaster expenditures should decrease only as a result of disasters becoming less costly overall, rather than through cost shifts to state and local governments, as cost-shifting would place additional strains on those governments' budgets, in turn compromising their ability to respond to disasters.

Decreases in federal disaster spending should not come at the expense of state and local governments. Proposals and recommendations to decrease federal disaster spending put forth by federal entities in recent years run the risk of achieving that goal by shifting costs to state and local governments, which, as previously mentioned, are generally less capable of bearing these costs. The ultimate result of shifting federal disaster costs to state and local governments would be to make our nation more vulnerable to an increasing number of disasters.

In an oft-cited 2012 report, the Government Accountability Office (GAO) stated that raising the per-capita indicator used by FEMA to assess major disaster declaration requests could significantly decrease the number of disasters that qualify for such declarations.[5] According to GAO, if the per-capita indicator were increased based on inflation beginning in 1986, the number of disasters that qualified for major declarations would have decreased by 25 percent; similarly, if the indicator was increased based on increases in per capital personal income, the number of major declarations would have decreased by 44 percent.

While these adjustments to the per capita indicator might decrease federal spending on disasters by lessening the number of events that qualify for federal funding, it is worth considering how these savings would be achieved. According to the Congressional Research Service, 25 percent of disasters account for more than 90 percent of FEMA's disaster spending, and in turn, the remaining 75 percent of less costly disasters that receive federal aid account for less than one-tenth of FEMA's disaster spending. Based on this, adjustments to the per capita indicator that would decrease the number of federal disaster declarations by 25 or 44 percent would result in relatively minor savings – significantly less than 10 percent – on federal disaster spending.

More importantly, whatever savings were achieved by the federal government in this manner would result from the elimination of federal aid for a large number of relatively less costly disasters. This is especially problematic because these disasters are often less costly because they have struck rural areas with less public infrastructure and relatively inexpensive homes. Moreover, these rural communities typically have less resources to expend towards disaster recovery efforts. As such, decreasing federal disaster spending by raising the per capita indicator used to assess disaster declaration requests would result in a deeply undesirable outcome: achieving relatively minor federal savings by eliminating federal aid for a large number of less costly disasters that are likely to impact rural communities with lesser resources, without decreasing federal spending on the few large disasters that account for the vast majority of federal disaster spending.

[5] http://www.gao.gov/assets/650/648162.pdf

A more recent proposal, put forth by FEMA through an Advanced Notice of Proposed Rule Making (ANPRM) earlier this year, would introduce a "disaster deductible" that would have to be fulfilled by state – and perhaps local – governments before they received federal aid in the form of Public Assistance funds authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) (42 U.S.C. 5121-5207). In conversations with NACo staff, FEMA stated that it put forth this proposal in part to avoid the undesirable outcome of raising the per capita indicator as suggested by the GAO report mentioned above. We sincerely appreciate FEMA's consideration in this regard, and commend the agency not only for putting forth a proposal aimed at avoiding an outcome that would be especially harmful to rural communities, but also for its thorough and thoughtful engagement with NACo after the proposal was published.

NACo recognizes the potential strengths and benefits of the concept. Namely, the fact that state and local governments could meet the deductible both through their own spending on recovery *and* through qualifying disaster mitigation activities could have the important effect of incentivizing mitigation measures that would make communities more resilient to disasters, thereby saving lives and – importantly for the purposes of this conversation – decreasing the overall cost of disasters, resulting in savings not just for the federal government, but also for state and local governments. As elaborated upon in the following section, local mitigation efforts are key to driving down the cost of disasters, and FEMA's "disaster deductible" concept aims to incentivize these practices.

That said, NACo has significant concerns regarding the "disaster deductible" as put forth in FEMA's ANPRM, in part because the proposal presents a variety of issues for local governments that would likely result in the withholding of federal aid from communities as they attempt to recover from disasters. For example, El Paso County has spent over $50 million dollars on disaster mitigation projects in the last several years as we have worked to recover from devastating wildfires and floods and prepare for future disasters. But despite these tremendous investments in disaster mitigation, under FEMA's "disaster deductible" proposal, federal aid could be withheld from our county because, for example, the state of Colorado has not made sufficient investments in mitigation. Similarly, it is unclear how varying levels of mitigation investments among local governments within a state would be treated under the proposal – in both cases, El Paso County could be punished for the inaction of other entities over which it has no control. There are also a host of unanswered questions related to how FEMA would credit various mitigation activities and what sort of additional administrative burdens would be placed on local governments to document their mitigation efforts.

To its credit, FEMA has clearly considered these pivotal questions, but at this juncture has not provided the needed answers, and thus has not given state and local governments confidence that a "disaster deductible" proposal could be implemented without the significant risk that it would simply shift disaster costs from federal governments to state and local governments, including those who have already undertaken significant mitigation efforts.

Local disaster mitigation efforts – both those that take place before disasters strike and those undertaken following a disaster – have proven effective at decreasing the overall cost of disasters, and should be supported and incentivized by the federal government.

According to a report prepared by the Multihazard Mitigation Council for FEMA and affirmed by the Congressional Budget Office, each dollar spent on disaster mitigation results in $4 in future savings.

[6]Investments in mitigation are the key to decreasing the overall cost of disasters, not just for the federal government, but also for state and local governments. Counties are uniquely positioned to carry out these mitigation efforts through their land use planning and regulation authority, ownership and operation of public infrastructure and stewardship of public finances. Each year, counties invest $25.6 billion in economic development and $106.3 billion in building infrastructure and maintaining and operating public works.

As counties have carried out local disaster mitigation efforts, collaborations with the federal government have proven effective at reducing the cost of disasters and increasing the resiliency of local communities. Following the Midwest floods of 1993, which inundated nine states with flood water and left $12 billion of damage, Iowa's Black Hawk County partnered with FEMA to buy out structures located in floodplains and re-purposed the land as open space that residents could use for gardening, hunting and fishing. In the buyout, ninety-six homes were purchased and demolished and eighty-nine families moved safely away from the floodplain. The total cost of the program was $4.3 million. Since the beginning of the project in 1993, the area has experienced several more flood events, and the estimated avoided damages from these events totals $5.34 million. The state of Iowa projects the 30-year benefits from the project to be over $6.6 million in avoided damages. The mitigation buyouts undertaken by Black Hawk County in collaboration with FEMA were successful in driving down the overall cost of future disasters and increasing the safety and resilience of the local community and its residents.

More recently, in 2010, Coconino County, Ariz. experienced the Schultz wildfire, which cost $120 million to fight and significantly changed the physical landscape of the county. Prior to the fire, the county's landscape was easily able to handle significant rain events, but as a result of the charring of vegetation, heavy rains that came down after the wildfire caused flooding of residential areas. Since the fire and subsequent flooding, Coconino County has instituted storm water drainage standards for all new subdivisions, requiring that drainage systems be able to handle a five-year, 24-hour storm event (a "five-year storm" signifies a 20 percent chance of occurrence per year). The county also invested over $18 million of county funds to mitigate flood impact and drew upon assistance from FEMA's Hazard Mitigation Grant Program (HMGP) for large mitigation projects, including land treatment (planting vegetative cover) and building protective structures like berms. We hope that Coconino County does not face disasters like the Schultz wildfire and subsequent flooding in the future, but if it does, the county will be more resilient thanks to mitigation efforts undertaken in recent years, and the overall cost of a future disaster will likely be less for the county, the state, and the federal government.

These examples demonstrate the value and effectiveness of federal programs like HMPG to local communities as they work to recover from disasters and enable their residents to quickly resume their normal lives. From providing the tools and resources needed for Black Hawk County to buy out repetitive loss properties and enabling Coconino County to create water drainage conveyances, these programs help counties better utilize their own resources and authorities to build safer communities after a disaster and decrease the impact and costs of future disasters.

In addition to their pivotal role in carrying out the local disaster mitigation measures outlined above, counties are also uniquely positioned to serve as conveners and help foster pre-disaster coordination between government officials and between local leaders and the communities they serve. This coordination helps to ensure that resources from all levels of government are deployed quickly and

[6] http://www.preventionweb.net/files/1087_Part1final.pdf

efficiently during disasters, and that residents respond to disasters in a manner that reduces the risk of injury or death and costly reliance on emergency services.

When a disaster strikes, the strength of the federal-state-local partnership is tested and it is incumbent upon us as elected officials to strengthen and encourage strong intergovernmental relationships before these disasters strike. The quality and effectiveness of response to disasters depends in part on the ability of local officials – including local emergency managers appointed by elected officials in most counties to coordinate their disaster activities – to quickly establish communication with their proper counterparts at the state and federal level. Something as simple as ensuring that local officials know who to call when a disaster strikes can help to mitigate damage caused by a disaster, decreasing the overall cost of the event.

Communication between local officials is also crucial in mitigating damage and costs following a disaster. In San Diego County, Calif., the Advanced Recovery Initiative (ARI) was developed to improve the efficiency of the county's work during disaster recovery by pre-designating and training county staff members as Disaster Service Workers (DSW) in specific positions. This planning helps staff learn their role before their deployment and understand expectations in a disaster. The ARI created a database of these pre-trained employees with a pre-designated recovery role. The database tracks the daily status of each employee and any job classification change. This tracking ensures that ARI membership is accurate, up to date and members are available in the event of a disaster.

Just as important in reducing the damage caused by disasters is effective communication between local leaders and the residents they serve. In El Paso County, we expend significant resources to educate our community on effective preparation for future wildfires. Last Saturday, I participated in a wildfire preparation event hosted at a local church, along with a local fire marshal and an official from the Colorado Forest Service. At the event, which was free to all area residents, we shared information on creating "defensible spaces" around homes, about the proper materials to use for decks and patios and about family evacuation planning. We also list a number of resources on our county website that help our residents prepare for disasters, including a guide to preparing for wildfires and an El Paso County-specific guide to preparing for flash floods. [7]

Through these efforts, we not only make our communities more resilient to disasters, but also foster a sense of investment in the community's recovery when disasters strike. In the Waldo Canyon Fire that ravaged our county in 2012, 6,000 people pitched in to perform over 41,000 hours of volunteer work. I believe that this type of collaborative recovery is only possible because of the strong social fabric that ties counties to their residents, and we foster these ties by working with our residents to prepare for disasters.

While local leaders are best positioned to help carry out pre-disaster coordination between government officials and between local leaders and the residents we serve, the support of the federal government is important in establishing these practices in communities across the nation. This is one of the most cost effective and efficient ways to ensure that those involved in a disaster respond in ways that help save lives and decrease overall costs.

[7] http://adm.elpasoco.com/emprep/Pages/default.aspx

Closing

Thank you again Chairman Barletta, Ranking Member Carson and members of the Subcommittee for this opportunity to provide the local perspective in this important conversation on federal disaster spending. The nation's counties are grateful to this Subcommittee for its ongoing strong support for emergency management at the local, state and federal levels, and we look forward to continuing to work with you towards the shared goal of making our nation and its local communities more resilient in the face of disasters.

Bryan Koon

Director, Florida Division of Emergency Management
President, National Emergency Management Association

STATEMENT FOR THE RECORD

On behalf of the
National Emergency Management Association

Submitted to the House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings and Emergency Management

United States House of Representatives

Controlling the Rising Cost of Federal Responses to Disaster

May 12, 2016

National Emergency Management Association
444 N Capitol Street, NW, Suite 401
Washington, D.C. 20001
202-624-5459

Introduction
Thank you, Mr. Chairman, Ranking Member, and distinguished members of the Committee. As stated, my name is Bryan Koon, and I am the Director of the Florida Division of Emergency Management. I am here on behalf of the National Emergency Management Association (NEMA), which represents the state emergency management directors of the 50 states, territories, and District of Columbia. NEMA's members, many of whom serve as Homeland Security Advisors, are prepared to deal with an ever changing and increasingly complex set of challenges that test traditional approaches to natural and manmade disasters. I appreciate the chance to come before you today to discuss the rising costs of disasters and NEMA's recommendations to make meaningful progress to limit the impact of future events.

Core Principles for a Disaster Resilient Nation
We are witnessing a more diverse array of threats than at any time in history. The skill, speed, and adaptability of the threats are challenging our defense in ways we have not seen before. The high incidence of natural disasters and terrorist threats in the United States challenges the peace, security, and general welfare of the nation and its citizens. This nation deserves safety and security, but it also deserves solvency through disaster cost reduction and an increased focus on resilience.

- The unpredictability of budgets at every level of government and the uncertainty surrounding the types and severity of disaster damage communities are likely to see in the near future puts risk reduction at a premium. NEMA believes the following:

- Reducing the overall costs of disasters, at all levels of government, is necessary for the continued economic and social equilibrium of the nation. Simply shifting costs from the federal level to state, local and tribal governments does not achieve meaningful disaster cost reduction.

- The government practice of spending more money on disaster recovery than risk reduction prior to the disaster must be changed. Hazard mitigation is a demonstrably cost-effective effort with a documented return on investment.

- Mitigation and resilience activities by state, local and tribal governments should be recognized and incentivized by the federal government. In the long-term, cost savings will be realized at all levels.

- Federal and state governments recognize that much of the legal authority and responsibility for risk reduction decisions and activities resides at the local level i.e. adoption and enforcement of building codes, zoning and land use decisions. Local and tribal governments are critical partners in creating and sustaining disaster resilient communities.

- National efforts to reduce the costs of disasters through legislation or rulemaking must:
    - Recognize that state, local and tribal governments already handle the vast majority of disasters and emergencies on their own and without federal assistance;
    - Refrain from cost-shifting;

- Utilize the best available science and predictive analysis tools to illustrate data-driven return on investment calculations;
- Encourage and reward mitigation and resilience activities in the broadest sense;
- Provide for transparency and accountability without increased complexity and administrative burden.

Cost Reduction Through Mitigation Activity
The best way to reduce the cost of disasters is to design and harden the built environment to match the threat environment. One component of such effort is mitigation, which averages a 4 to 1 return on investment (ROI) in addition to less tangible environmental benefits. Federal spending, however, does not reflect this priority. From 2004-2013, FEMA spent $71.2 billion in Public Assistance and Individual Assistance to help communities recover from disasters, in addition to tens of billions of dollars spent by the Departments of Housing and Urban Development and Labor, the Federal Highway Administration, the Federal Transit Authority, the Small Business Administration, and the Army Corps of Engineers. In that same time period, only $5.2 billion was spent on Hazard Mitigation Grants to reduce the impact of future events.

Response and recovery programs are critical post-disaster investments, but speak to a cyclical focus that prioritizes managing the impacts of disasters instead of reducing or eliminating those impacts altogether. Incorporating mitigation into disaster recovery through Public Assistance or Hazard Mitigation Grant Program funding is necessary, but in the chaotic and often fragmented post-disaster environment, investments may not always address the long term, strategic needs of the community. Mitigation should be encouraged before the disaster occurs to strengthen and protect our critical infrastructure, provide incentives for communities for the adoption and enforcement of effective building codes, and reward builders and homeowners who make responsible decisions to mitigate risk that can have positive impacts on the entire community.

Mitigation activities do not have to be accomplished solely with federal funding. The goal is to reduce vulnerabilities and increase resilience for the future using all available resources and these efforts can be more sustainable when coupled with investments from state, local, and tribal government as well as private sector and individual stakeholders. Collaborative mitigation strategies encourage relationship building and facilitate innovative funding mechanisms that can support the type of long-term, community-driven investments that risk reduction efforts require.

Hazard mitigation is a demonstrably cost-effective effort with a documented return on investment. Providing incentives and empowering communities, business owners, and government officials at all levels to mitigate is a compelling narrative that shifts the focus from federal to community priorities that reflect evolving risk on the ground.

Ongoing Efforts to Achieve Resiliency
The vast majority of building projects in the nation and funded by entities other than the federal government. And every year, those roads, bridges, water treatment plants, shopping malls, housing developments, and stadiums get built better and stronger than the year before. Advances in building engineering, materials and techniques; better hazard awareness and modeling; more robust building codes, zoning, and land use principles; and an increased focus on occupant safety have all contributed to creating a more resilient built environment. The federal government

should continue to assist in this progress by recognizing the cost-savings that will be recognized as a result of these improvements and finding ways to help replicate emerging practices across the country. It should also recognize and eliminate those situations that create dis-incentives for improvement.

Two programs which could significantly reduce the cost of disasters but are underutilized are the Community Rating System of the National Flood Insurance Program, and the opportunity for states to earn 33% more post-disaster mitigation funding by having an enhanced mitigation plan approved by FEMA. Full participation in these programs by states would significantly improve their readiness by helping to put into practice well-researched and considered mitigation techniques. However, staffing and funding levels and state and local levels make participation in these programs difficult, and the reward is often too far removed from the risk to motivate those who choose to enact the program. These programs and others like them should be evaluated to determine how to improve the participation rates of eligible jurisdictions in order to maximize their impacts.

In addition to improving currently existing federal programs, FEMA and others should recognize outstanding efforts done by state and local entities and encourage their adoption nationwide. Following Hurricane Floyd in 1999, North Carolina established and has funded a statewide Floodplain Mapping Program. This program, recognized by FEMA as a Cooperating Technical Partner, has to date:

- Acquired two rounds of statewide LiDAR derived topographic data;
- Studied over 31,000 stream and coastal miles with Base Flood Elevations established or updated for all studied streams;
- Facilitated the adoption of the maps by all 100 counties in North Carolina and the Eastern Band of the Cherokee Indian Nation;
- Transitioned completely away from costly cartographic mapping to an efficient, dynamic database derived display for all data and maps;
- Assessed flood damage impacts for all structures in North Carolina for five flood events;
- Established ability to calculate and provide flood insurance premium rates for all structures in North Carolina;
- Established a real-time flood warning system that calculates real-time data to structures; and,
- Established Flood Risk Information System (FRIS) that houses and dynamically displays all flood data, models, maps and risk associated with flood. This system also houses and displays data for Virginia, Alabama and Florida which is highly efficient and a cost savings for each state.

Current Efforts to Reduce Disaster Costs to the Federal Government

FEMA has undertaken various efforts over the last decade to reduce costs and streamline operations. In the aftermath of Superstorm Sandy, which started a politically charged conversation about federal disaster costs, cost reduction has been a priority.

PA Re-Engineering – The Public Assistance Reengineering is an excellent example of FEMA working to improve and maximize existing programs. The primary change is intended to alter the process to be more customer centric. When customer service is the focus the local

jurisdictions should see more timely results with restoration of infrastructure and cost reimbursement. Through this re-engineering FEMA is working to address the need for reduction in administrative costs. The thought process is that these changes will require less time in the field, thereby reducing overhead costs for joint field offices. While it is still too early to determine the effectiveness of the change, we are pleased with the effort and urge that similar reforms be considered by other programs that impact our ability to mitigate, prepare, and recover.

Emergency Management Assistance Compact (EMAC) – Investment into EMAC leverages federal grant dollars that have already been invested in state and local emergency management capabilities. EMAC has made it easier for states to assist each other effectively—with the added benefit of lessening the need for federal resources in the process. Going forward, we must encourage greater investments as states work with one another to reduce the need for federal assistance, reduce federal administrative costs, reduce property damages, and most importantly, save lives.

National Strategy for Reducing Disaster Costs – In the Sandy Recovery Improvement Act (SRIA), Congress required that FEMA develop a National Strategy for Reducing Disaster Costs. NEMA quickly realized the effort to develop a framework for a National Strategy for Reducing Future Disaster Costs could be paramount in ensuring the solvency of our disaster response network for generations to come.

NEMA members understood the importance of clearly articulating initial steps in developing an informed and effective national strategy for reducing future disaster costs including planning assumptions. NEMA also recognizes varying levels and types of activities to consider for reducing future disaster costs including those in the near-term, long-term, administrative, programmatic, operational, and strategic. While the initial direction from Congress was for FEMA to simply describe a framework, NEMA encourages the full development of this strategy.

Disaster Deductible – In January 2016, FEMA released an Advanced Notice of Proposed Rulemaking (ANPRM) that introduced a concept that would create a State deductible for federally declared disasters. The ANPRM was light on details, and instead highlighted questions for stakeholders to allow for significant input on any future rulemaking. The overall goal is to reduce the cost of disasters by first, requiring a deductible to be paid before federal financial assistance would kick in and second, providing States a chance to buy down this deductible by investing in mitigation and risk reduction activities.

Comments to the ANPRM were accepted until late March and NEMA submitted comments to the Federal Register along with over 100 other stakeholders. There was no clear consensus of opinion on the proposal. Some States are open to the idea, others have significant concerns and still others, took no position, asking additional questions and raising further issues.

While there was a wide range of opinions among the states, certain themes were repeated:

- Any new concept must represent a real reduction in disaster costs – not merely shifting the financial burden to states, local jurisdictions, tribes, etc.

- If FEMA goes forward with the concept, there must be ample time for implementation, both for FEMA and the states. For FEMA, this means full development of the concept, internal education and training, and the creation of understandable guidance for the states. On the state level, it will require first and foremost enough time for state legislatures to be thoroughly briefed on the new requirements and plan through their budgetary cycles for additional deductible responsibilities. States will also need time for training of state personnel as well as all sub-grantees.
- If the idea proceeds, there must be detailed program guidance with clearly defined requirements from FEMA, including all data that states would be expected to capture in order to meet the deductible.
- The more subjective elements in the new concept, the more opportunities for confusion, contradiction, inconsistencies and varying interpretation from region to region. This has occurred many times in the existing program and everything possible should be done to avoid this with any new structure.
- The proposal should not result in ever-increasing and onerous administrative burdens, requiring more personnel, more expense and more bureaucracy.
- The deductible cannot result in delayed assistance to those in need.

Recommendations for the Future

NEMA will continue to work with Congress and the Administration to urge progress on critical proposals to tackle increasing disaster costs in a way that does not simply shift costs to State and local stakeholders. I'll touch briefly on a few of them.

- Continue to offer incentive programs that allow states to pursue additional opportunities to strengthen their communities. Although a number of these programs and incentives exist, they are not fully utilized. We recommend that FEMA and other agencies continually evaluate these programs to better understand what the issues are that deter or prevent communities from fully leveraging these programs. Examples of these types of programs are the additional funding available through having an enhanced mitigation plan, the savings communities enjoy through participation in the community rating system, and the cost-savings generated by accelerated debris removal, the use of volunteers in disaster response and recovery. All of these programs have a positive return on investment that will ultimately reduce the cost of disasters at every level. Communicating return on investment, however, is often hindered by limitations put in place by the Office of Management and Budget and the Congressional Budget Office.

- NEMA also recommends that a study to determine the true costs of disasters be conducted that captures not only those direct financial costs borne by FEMA, but also those costs, both direct and indirect that are paid by other federal agencies, state, local, and tribal governments, and the private sector. This should not only account for economic costs related to a disaster, but the opportunity cost for economic activities that were impacted by the disaster. Such a study will paint a much clearer picture of what the true cost of natural and man-made disasters are to the United States, and allow us to develop a more comprehensive and ultimately successful program to reduce those costs.

- Position FEMA as a partner in developing a more resilient nation. FEMA's ability to respond quickly to disasters has improved tremendously in the years since Hurricane Katrina. They should now positions themselves there as an organization that is there all along, helping the community to get ready for that day, integrating the myriad of resources available to reduce the impact of the next flood, hurricane, or earthquake. As community leaders have better access to the true cost of disasters, they will be more likely to position their community for successful mitigation efforts. And as citizens and consumers become more aware of the options available to them that will help preserve their life and property they will choose them, spurring further development in this area. Mitigation and long-term recovery are societal investments – not a cost. These endeavors must build on non-traditional partnerships to communicate that efforts are worth the investments.

- Many of the functions that FEMA fulfills during a disaster could be done in a more cost-effective manner by using personnel deployed from tribal, state, or local government through the Emergency Management Assistance Compact. Doing so not only has the potential to reduce the cost of the disaster, but it allows those personnel to gain real-life experience that will benefit their local program in future disasters. The receiving entity will also enjoy the benefit of having someone with experience at their level of government assisting them. And because these relationships are contracted for and paid by the receiving entity, there is an element of speed and efficiency that can be lost when the service is provided at no charge by the federal government.

- Communities across the nation are facing the impacts of increasingly severe weather and the trend is expected to continue. A changing climate, regardless of the reasons for the change, increases the loss of life and property. Widespread droughts, rapidly moving wildfires, severe and sustained coastal or riverine flooding, more powerful hurricanes, and record-breaking snowfall may become even more common. These disasters may exceed the current planning factors used to ensure that the appropriate response and recovery assets are in place. All stakeholders interested in reducing the cost of disasters must be ready to adapt to evolving cost-drivers like extreme weather.

  We must consider the growing scale of these situations and facilitate partnerships with NOAA and the National Weather Service, research center and academic institutions, the private sector, the insurance industry, and emergency management to continually reevaluate the potential impact to the nation, and our readiness for them, and to put in place the recommended solutions to ensure that we are not caught unaware. Smart decision-making and investments that support disaster resilience are the keys to preventing the costly toll of future disasters.

- Partnerships should be supported and encouraged to engage stakeholders in working groups that harness the power of collaboration. For example, the National Information Sharing Consortium works with DHS First Responder's Group to provide tools to help communities improve preparedness through greater information sharing, situational awareness, improved resource planning, improving alerts and warnings, and mutual aid.

The work that groups like this do on a grassroots level to review and assess developed processes can be leveraged throughout the federal government, and may reduce the burden on the Federal Government as they move forward with the implementation of standards. If organizations have worked together to create, test, train, and implement agreeable standards across multiple jurisdictions, they have done the heavy lifting which could potentially save millions.

Conclusion

While many stakeholders approach the issue of increasing disaster costs differently, I feel comfortable saying we all have a common goal. As government officials, private sector business leaders, and community members, we all have a role to play in reducing the cost and impact of disasters.

Mitigation activities can take many forms, and their uses differ by region. What does not differ, however, is the value these initiatives can hold. In today's economic times, investments must be made in the prevention of high disaster recovery costs incurred by the federal government, states or localities. FEMA's mitigation programs, including the Post-Disaster Mitigation and Hazard Mitigation Grant Programs as well as programs within the NFIP have been effective in reducing the possibility of property damage, personal and commercial hardship, as well as long lasting monetary burdens.

We have a long way to go, however, to move the needle in a meaningful way that allows us to see significant decreases in the liability to the DRF and state budgets. Government programs, while impactful and critical drivers of investment, are not the only tools we have at our disposal.

I appreciate the opportunity to testify before you today and stand ready to answer any questions the Committee may have.

TESTIMONY OF ERIC NELSON

SENIOR VICE PRESIDENT OF CATASTROPHE RISK MANAGEMENT AT TRAVELERS INSURANCE AND EXECUTIVE COMMITTEE MEMBER OF THE BUILDSTRONG COALITION

BEFORE

THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT

UNITED STATES HOUSE OF REPRESENTATIVES

ON

CONTROLLING THE RISING COST OF FEDERAL RESPONSES TO DISASTERS

THURSDAY, MAY 12, 2016, 10:00 A.M.

2167 RAYBURN HOUSE OFFICE BUILDING

Chairman Barletta, Ranking Member Carson, and members of the Subcommittee, thank you for holding this important hearing today to examine solutions to controlling the increasing costs of natural disasters to the federal government and the U.S. taxpayers. My name is Eric Nelson and I am the Senior Vice President of Catastrophe Risk Management at Travelers Insurance. I am testifying today on behalf of the BuildStrong Coalition, a group of business and consumer organizations dedicated to reducing human and economic losses from natural disasters by developing a national mitigation investment strategy geared towards pre-disaster loss prevention and incentives for resilient construction. The coalition consists of a diverse group of members representing first responders, emergency management officials, architects, engineers and businesses large and small. Travelers membership in the BuildStrong Coalition began in 2012 as part of our efforts to raise awareness about how disaster preparedness can help minimize risk and reduce losses to communities, businesses and families. As one of the largest property/casualty companies in the U.S., Travelers provides unique experience and expertise from the private sector that can add value to the federal government's mission to manage its own risk and losses from natural disasters.

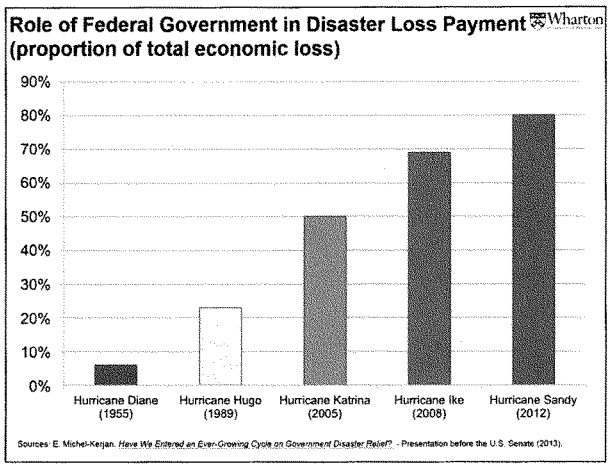
The BuildStrong Coalition continues to be proud to partner with the Committee in its work to investigate causes of and solutions to the rising cost of disasters in the U.S. I would first like to thank Chairman Barletta and members of the subcommittee for their continued leadership in conducting a series of roundtables on this topic beginning in January of last year. The roundtables helped identify opportunities that a federal mitigation investment strategy can help address in the face of our country's increasing number of severe and costly weather events.

I begin today by outlining three of the major takeaways emerging from the roundtables. Doing so will enable us to "set the table" by describing what we have learned before moving on and attempting to answer the most important question of all:

- ➔ Given that the vast majority of Americans are exposed to some type of natural disaster, spanning Tornadoes, Hail, Wildfires, Flooding, Earthquakes and Hurricanes, what actionable steps can Congress take to mitigate risk, lessen the impact to families and communities across America and reduce the federal government's role in economic losses from natural disasters?

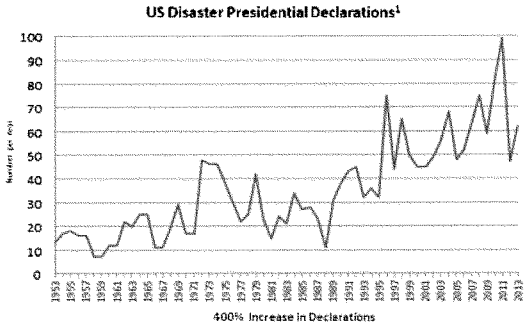
The first takeaway from the roundtables is that by almost every measure, federal disaster spending is increasing and is on an unsustainable path. Two charts from the first roundtable most effectively communicate this point. The first chart was presented by Dr. Erwann Michel-Kerjan from the Risk Management and Decision Processes Center at the Wharton School of the University of Pennsylvania, and shows the exploding federal cost share for natural disasters over the last 60 years, increasing from roughly 6% in 1955 to 77% in 2015. To help put those percentages into context, Dr. Michel-Kerjan noted that the average cost share for national governments in Europe is between 40-50%.

FIGURE



The next chart illustrates the growing number of U.S. presidential disaster declarations since 1953, which have increased by almost 400% over the last 60 years. The numbers in these two charts, taken in concert, underscore that federal disaster declarations are at an all-time high and will continue to climb if measurable steps are not taken to address the underlying causes.

FIGURE 2



[1] Federal Emergency Management Agency

The second takeaway from the roundtables is that states, communities and individuals have very little incentive to undertake loss prevention measures before a disaster occurs. The Multihazard Mitigation Council conducted a study which documented how every $1 spent on mitigation saves society an average of $4. These findings represent compelling evidence that the federal government is inadvertently fostering short sighted behavior throughout state and local governments and with individual homeowners.

The third point of consensus from the roundtable discussion is that eliminating disincentives and replacing them with appropriate incentives can foster widespread and comprehensive investments in proven, effective and efficient mitigation. Doing so can lead to widespread benefits for everyone involved.

The federal government stands to benefit by lowering the federal costs share of disaster recovery. States stand to benefit by both alleviating the budget strain caused by major disasters and easing their dependency on federal disaster aid.

Families stand to benefit by protecting their property and loved ones, while also reducing personal disaster costs and, most importantly, mitigating losses. Everyone would take comfort in knowing that assistance would be there if they lose everything to a natural disaster, but I believe anyone would prefer not to have lost everything in the first place. Communities and local economies stand to benefit by enabling citizens and businesses to recover more quickly after a natural disaster. While the benefits are clear, the key question mentioned earlier remains: What specific policies can Congress put in place to accomplish this?

In October 2015, the BuildStrong Coalition issued a report exposing the lack of a comprehensive federal strategy for investing in mitigation. The report presented a compelling and detailed framework for remedying the deficiencies in the current system, while providing the framework for a long term plan to buy down disaster exposure in the United States. The national mitigation investment strategy is based upon the latest science and engineering research from world class research institutions such as the Insurance Institute for Business & Home Safety, ("IBHS").

IBHS and other research institutions conduct research on building performance standards under simulated disaster conditions in controlled environments. Research from these institutions demonstrates that the statewide adoption and enforcement of model building codes can help eliminate long-term risks affecting people, property, the environment, and, ultimately, the economy. Studies conducted in the wake of major disasters support these findings as well; for example:

- According to IBHS, statistics show that of all businesses that close down for 24 hours or more due to a disaster, at least 25% never reopen. Small businesses are particularly at risk because they likely have all operations concentrated in one location.

- The Louisiana State University Hurricane Center estimated that stronger building codes would have reduced wind damage in the state from Hurricane Katrina by 80%, saving nearly $8 billion. However, the federal government is currently doing so little to incentivize the adoption and enforcement of strong building codes. Only 3 states have adopted the latest (2015) residential building codes; in addition, only 21 states and the District of Columbia are now using the 2012 International Residential Code. This means that about half of our states lack key provisions that the latest residential building codes provide - provisions that are specifically designed to prevent injuries and deaths when disaster strikes.

Thanks to the leadership of Congressman Curbelo and Congressman Sires, I am pleased to report that the core principles from this report have been turned into legislation with the introduction of H.R. XX, the National Mitigation Investment Act. The National Mitigation Investment Act represents an important step toward developing a comprehensive solution to address rising costs of disasters. The legislation provides a powerful incentive for states to adopt and enforce strong statewide building codes and authorizes a first of its kind competitive grant program to improve the building code enforcement capabilities of states and localities. Furthermore, the legislation includes a provision the Chairman authored in HR1471 mandating the first comprehensive assessment of federal disaster spending and policy by Congress in over 20 years.

The National Mitigation Investment Act represents an innovative proposal to reform the way the federal government looks at mitigation and disaster spending. Congressional leaders, policy experts and the GAO all agree that strong building codes and enhanced pre-disaster mitigation spending would provide life and cost saving benefits to the United States. I urge you and your colleagues to support the National Mitigation Investment Act to reign in the exploding disaster costs to the federal government and American taxpayers.

Chairman Barletta, Ranking Member Carson and members of the Subcommittee, I applaud you for your leadership on this important issue, and thank you for allowing me to testify today. I would be happy to answer any questions.

National Institute of
BUILDING SCIENCES
1090 Vermont Avenue, NW, Suite 700
Washington, DC 20005-4905
(202) 289-7800 phone
(202) 289-1092 fax
www.nibs.org

TESTIMONY OF

KEVIN MICKEY
CHAIR, MULTIHAZARD MITIGATION COUNCIL
DIRECTOR OF PROFESSIONAL DEVELOPMENT AND GEOSPATIAL EDUCATION, THE POLIS CENTER, INDIANA UNIVERSITY PURDUE UNIVERSITY INDIANAPOLIS

FOR THE

NATIONAL INSITUTE OF BUILDING SCIENCES
MULTIHAZARD MITIGATION COUNCIL AND
COUNCIL ON FINANCE, INSURANCE AND REAL ESTATE

TO THE

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS AND EMERGENCY MANAGEMENT

MAY 12, 2016

Chairman Barletta, Ranking Member Carson and Members of the Subcommittee, thank you for the opportunity to provide testimony on cost-effective opportunities to reduce the economic impacts of natural disasters through the establishment of new incentivization pathways and investments in mitigation strategies.

I am pleased to be before you in two capacities. I serve as Director of Professional Development and Geospatial Education at The Polis Center, Indiana University Purdue University Indianapolis (in Ranking Member Carson's district), and as the Chair of the Multihazard Mitigation Council of the National Institute of Building Sciences.

First, let me provide a little background on the Center and our work to advance resilience locally, regionally and nationally. Polis was formed in 1989 with the mission of linking academic and community expertise to create strong, resilient communities and to build their capacity to make effective, data-driven decisions. Our initial focus was the Indianapolis area. While we continue to have a strong commitment to Indiana, our work has grown to include national as well as international audiences. Polis partners span the public, private and not-for profit sectors. We are particularly skilled in the application of digital technologies such as Geographic Information Systems (GIS) and other geospatial tools to address issues facing the nation's communities.

The following are a few examples of the more than 700 projects that Polis has supported.

- We partner with The Indiana Department of Homeland Security (IDHS), regional commissions, and local community planners to develop multi-hazard mitigation plans in accordance with the federal Disaster Mitigation Act of 2000. Since 2003, we have led these efforts for nearly all of Indiana's 92 counties. This work includes qualitative and quantitative risk analyses, working with local communities to develop mitigation strategies, and developing the final plan.
- We have supported the State of Georgia's disaster planning since 2011. We work with the Georgia Emergency Management Agency, Department of Natural Resources, University of Georgia, Association of Regional Commissions, and other partners. We create tools and workflows that relate detailed local information about buildings and populations to the hazards that threaten them. We also provide extensive training to ensure in-state capacity to use these resources effectively. We facilitate collaborations among federal, regional, state and local organizations that have led to the development of data development and sharing strategies. We have also performed such work in Texas, Florida, South Carolina, West Virginia, and Puerto Rico.
- We have been involved with multiple aspects of FEMA's Risk MAP program which, as you know, is designed to improve flood-risk data and flood-risk awareness. In collaboration with the Indiana Department of Natural Resources (IDNR) we have led and partnered in multiple demonstration projects to test and refine Risk MAP concepts and products. We have also worked with FEMA and IDNR to help communities identify mitigation projects that could lead to increased resiliency from flooding impacts.
- Polis has been a leader in emergency management education since 2003. We have developed over two dozen courses for FEMA and offered classroom instruction, conference keynotes, and other presentations in over 100 cities in 36 states and multiple countries.
- We have developed the SAVI Community Information System (savi.org), the nation's largest, which provides more than 10,000 indicators about health, education, crime, and a host of other quality-of-life measures, as well as information on 19,000 community assets, for the 11-county Indianapolis MSA. SAVI is used widely in numerous community planning and improvement efforts, and we are currently exploring ways that we will be able to link its data to the issues that confront emergency management.
- Finally, we seek to broaden the meaning of disasters to include social conditions such as food insecurity, homelessness, and other problems that are made worse by natural disasters. We believe that local and national interests are best served when we can link the networks serving natural, social, and economic emergencies to provide a comprehensive response to conditions that disrupt and destabilize communities.

We will continue to work creatively with government, voluntary organizations, faith-based communities and others to advance the goal of enhancing the resiliency of the American people. In this effort, we are learning much about the ability of universities to work in partnership with local communities, linking academic and practical expertise to develop innovative and effective solutions to the problems brought by natural and social disasters.

I bring my strong interest in advancing resilience to my volunteer role at the National Institute of Building Sciences' Multihazard Mitigation Council, where it is my honor to serve as the 2016 MMC chair.

The U.S. Congress established the National Institute of Building Sciences in 1974 to serve as an authoritative source for both the public and private sectors to create a safe, healthy built environment across the United States (12 USC 1701j-2).

To achieve its mission to support promulgation of nationally recognized performance criteria, standards and other technical provisions for maintenance of life, safety, health and public welfare, the Institute has established a diverse portfolio of councils that engage building industry experts in examining and developing tools, technologies and practices to meet identified needs. The Institute and its Multihazard Mitigation Council (MMC) and Council on Finance, Insurance and Real Estate (CFIRE) have been particularly focused on opportunities to advance resilience and encourage the most cost-effective approaches to reducing the impacts of natural and man-made disasters.

Resilience[1] has come to occupy a place in public policy and programs across the United States (Kahan, p. 2). Yet, even in the face of growing losses and the deleterious effects of natural disasters, the nation's capacity and appetite is waning for continued funding of disaster recovery—particularly in the face of increased frequency and severity of disaster events. Despite the long-proven benefits of federal and state pre- and post-disaster mitigation[2] efforts to promote resilience, funding for these initiatives has remained small compared to the post-disaster recovery funding.

As the MMC identified over ten years ago, "money spent on reducing the risk of natural hazards is a sound investment. On average, a dollar spent by FEMA on hazard mitigation provides the nation about $4 in future benefits."[3] While the Institute and the MMC believe this assessment is still accurate and compelling, we are in the process of conducting a follow-on study updating the benefits associated with FEMA investments in mitigation, adding the benefits of investments by

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[1] As defined by the National Academies 2012 publication, *Disaster Resilience: A National Imperative* (p. 16), "resilience is the ability to prepare and plan for, absorb, recover from, or more successfully adapt to actual or potential adverse events." This definition is considered by the National Academies to be consistent with the international disaster policy community (United Nations Office for Disaster Risk Reduction - UNISDR, 2011), and U.S. governmental agency definitions (Subcommittee on Disaster Reduction - SDR, 2005; Department of Homeland Security - DHS Risk Steering Committee, 2008; Presidential Policy Directive - PPD-8, 2011), and National Research Council (NRC, 2011). However, there is no one-size-fits-all definition of resilience; a variety of definitions has the benefit of providing users with flexibility in applying resilience in differing situations (Kahan, p. 6). The MMC and CFIRE recognize that definitions of resilience will vary from state to state and community to community according to local infrastructure, economies, demographics, governance and stakeholders. Incentivization is intended to work with and be tailored to any of these localized approaches to resilience. Whatever means communities devise for achieving resilience, the MMC and CFIRE will propose a way to incentivize it.

[2] In "*Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities, Volume 1 Findings, Conclusions, and Recommendations*" (p. 1), The National Institute of Building Sciences Multihazard Mitigation Council defines disaster mitigation as physical measures to avoid or reduce damage from disasters, such as elevating, acquiring, or relocating structures threatened by floods, and strengthening structures to resist earthquake and wind forces. Mitigation in the context of resilience allows structures and infrastructure, and, consequently, the economic and social processes associated with them, to be useful after a disaster.

[3] Multihazard Mitigation Council. *Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities, Volume 1- Findings, Conclusions, and Recommendations*. National Institute of Building Sciences, 2005.

other federal agencies, and, for the first time, capturing the benefits achieved through investments in mitigation made by the private sector. Completion of the first phase of this effort is anticipated in the summer of 2017, pending receipt of funding.

Recognizing the significant benefits achieved through pro-active investments in mitigation; the multi-stakeholder engagement necessary to achieve community resilience; the limited funding available to support disaster mitigation, response and recovery; and the anticipated increase in disaster events, a new approach is necessary—one focused on capturing all of the potential incentives provided by both the public and private sectors for pre- and post-hazard investment. The most cost-effective manner to achieve resilience is through a holistic and integrated set of public, private and hybrid programs that capture opportunities available through investment in mortgages and equity real estate; insurance; finance; tax incentives and credits; grants; regulations; and enhanced building codes and their application. This focus on leveraging private/public-sector opportunities to induce corrective action is called "incentivization."[4]

The current methods to incentivize investment in resilience rely on three primary mechanisms: federal grant programs (with some support from private foundations); insurance premium discounts for implementing measures to reduce vulnerability; and actions by local governments, either in the wake of a disaster or before an event occurs, through the foresight of community champions. While these approaches have provided a level of resilience, they have taken the nation only so far. Yet, as shown in Figure 1, the damage from extreme weather events has continued to increase in the past 35 years. [5]

Despite increased losses and the myriad benefits of investing in community resilience, federal assistance for resilience in terms of "pre-disaster mitigation" has actually declined over the past decade.[6] More must be done before natural disasters hit to prevent sadly recurring aftermaths: the loss of life and injury to loved ones; families and children made homeless; irreplaceable possessions lost; curtailed ability of breadwinners to make income; businesses, built with hard work over the years, destroyed; and wrecked regional economies.

The incentivization approach calls for input, consensus, leadership and action from a broad spectrum of stakeholders representing the financial, regulatory and economic processes that need to be developed and coordinated to make incentivization part of the nation's economic fabric. Such discussions need to occur at sufficiently high levels in the public and private sectors to ensure enactment. Participants should include those who offer incentives, such as insurance and finance-related companies, lenders and foundations, as well as forward-thinking communities

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[4] Multihazard Mitigation Council and Council on Finance, Insurance and Real Estate. *Developing Pre-Disaster Resilience Based on Public and Private Incentivization*. National Institute of Building Sciences, 2015.

[5] Figure 1 is constructed from the reference: "NOAA National Climatic Data Center, Billion-Dollar Weather and Climate Disaster: Table of Events, National Oceanic and Atmospheric Administration," http://www.ncdc.noaa.gov/billions/time-series. Costs are CPI adjusted. According to NOAA, cost estimates are rounded to the nearest billion dollars. Ongoing research is seeking to define uncertainty and confidence intervals around the cost of each event. Earthquake losses are based on an article by Gregory Wallace: "The Ten Most Expensive U.S. Earthquakes," *CNN Money*, August 25, 2014, http://money.cnn.com/2014/08/24/news/economy/earthquakes-10-most-expensive/.

[6] SmarterSafer, *Bracing for the Storm: How to Reform U.S. Disaster Policy to Prepare For A Riskier Future*, April 2015.

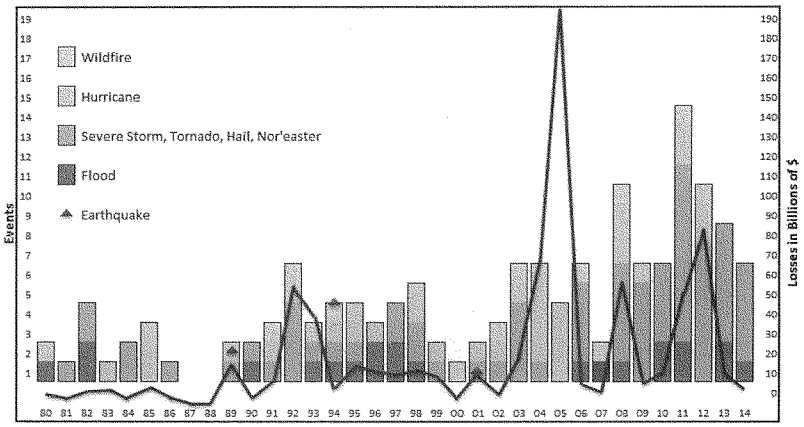

Figure 1: Billion Dollar+ Extreme Weather Events in Frequency and Losses from 1980-2014 (Earthquake Losses Included)[5]

and federal and state government agencies; and important decision makers, including utilities, homeowners and businesses should also participate.

The private sector will not undertake resilience investments just because it is sensible, but because it is economically prudent. Therefore, participating stakeholders need sufficient confidence that using incentives to achieve resilience will justify investments, underwriting and loan and grant programs. Decision makers want the certainty that they can offset the cost of implementing mitigation strategies. In this win-win scenario, all stakeholders should experience the expanded benefits and co-benefits of resilience, including reduced losses and operational continuity. Once incentives are adopted and standardized by leading private-sector stakeholders, the rest of the private sector should begin to follow.

Incentives should be an integrated set of solutions, and evolve with the changing field of resilience. Incentives programs should be developed to define entry points and streamline processes that can be easily understood and applied to ensure widespread usage and effectiveness. Incentivizing the means to achieve resilience before disasters occur focuses on monetizing the benefits realized by financial institutions and others for incorporating risk mitigation practices in the ordinary course of business.

While governments play an important role in disaster recovery, the need for recovery funding should be an option of last resort. Given the significant benefits of mitigation already demonstrated, all potential avenues to encourage such mitigation should be explored. MMC and CFIRE have identified key avenues to support mitigation investments which are summarized below.

- The interests of the insurance sector align substantially with pre-disaster concerns. Resilient buildings reduce the loss risks associated with property insurance issuance. Similarly,

building resilience strategies reduce the payouts for business interruption insurance, which frequently exceed amounts expended by insurers in compensation for property damage. Insurers can promote the adoption of enhanced, beyond-code mitigation standards for resilience [such as the Insurance Institute for Business and Home Safety (IBHS)'s FORTIFIED programs for residential and commercial buildings]. To incentivize the take-up of such standards, insurers can offer premium discounts to property owners who utilize the standards in construction or retrofit.

- Resilient properties also enhance the security of mortgage lenders. Therefore, banks and other lenders have perhaps the most potential to scale and transform the retrofit finance market by integrating performance-based resiliency requirements within their mortgage origination and refinancing programs. All other factors being equal, resilient properties constitute stronger mortgage loan collateral than less-resilient properties. This suggests that permanent mortgage loans on resilient properties, if pooled and sold as bonds, could enhance the credit quality of mortgage-backed securities.
- Developers and builders need to engage in resilience discussions, and realize that there is an untapped market for more-durable construction. From the property owner's perspective, a more-resilient property should increase the likelihood of securing debt financing. In addition, a more-resilient property—especially in areas prone to natural disaster—is likely to be more valuable than a less-resilient comparable property, thus resulting in enhanced sale prospects and (for commercial properties) better leasing performance.
- Corporate debt ratings, in appropriate cases, could recognize pre-disaster mitigation strategies. This approach would focus on companies whose assets are significantly concentrated in facilities or equipment in a single region or urban area prone to natural disasters, where such an event would have a profound effect on property loss and business discontinuity. Such companies would experience improved bond ratings, all other factors remaining equal, by adopting comprehensive resilience strategies. Similarly, industrial revenue bonds linked to the construction of resilient facilities in areas prone to natural disasters could realize enhanced ratings, other factors being equal.
- The development and adoption of appraisal and bond underwriting standards that recognize the valuation benefits of building resilience, all other factors being equal. Enhanced appraised values allow a borrower to leverage more mortgage financing for a given loan-to-value ratio. Conversely, for a specific loan amount, a more-resilient building will be better collateralized—that is, have a lower loan-to-value ratio—than a less-resilient comparable property. Similarly, bonds backed by resilient properties would carry higher ratings, thus minimizing interest expense to the issuer.
- Community investment decisions are not dissimilar to those in the private sector in that resilience to disasters positively affects a community's reputation as a place to establish and retain businesses. Resilience incentives for communities could consist of enhanced bond ratings for hazard-resistant municipal projects; the award of federal and/or state grants for the creation of either local mitigation grants, revolving loans or regulatory and tax programs that encourage resilience. Community regulatory and tax activities in support of resilience include the upgrade of local building codes; accelerated local permitting and inspection procedures for resilient properties; zoning benefits; more-favorable developer agreements for the construction of resilient properties; and more favorable tax treatment for resilient buildings and infrastructure.

- Utility incentives could include reduced insurance premiums to support the avoidance of interruption losses; a public utility commission policy that allows a small but immediate increase in rates to pay for system resilience enhancements; and enhanced bond ratings for projects that incorporate resilience strategies.

In order to assure the effective implementation of resilience strategies through regulatory and business-based decision making, stakeholders must determine the value of such strategies. They need better data and tools to identify localities with the highest risk, and to pinpoint where enhanced building code requirements and incentives would be most effective. New and improved software is needed to expedite the creation of financial products and other business processes that support incentivization. Stakeholders also need an enhanced flow of information to promote incentivization.

At the same time, a comprehensive incentives-based resilience framework must avoid disincentives, such as state insurance rate regulation that ignores risk-based pricing, which might limit the penetration of mitigation programs in the business arena.

All stakeholders are expected to experience substantial benefits of resilience following disasters—reduced financial and property losses; retention of business and employees, and related revenues after disasters; accelerated recovery and reduced recovery costs for owners, occupants and communities; reduction of resources required for relief and recovery; and, lessened demand on, and risk to, emergency response personnel and reduced expenditures for emergency response.

Beyond having more-resilient buildings and communities, stakeholders also may accrue additional economic benefits from establishing a system of private-sector incentives, including:

- Increased loan security for lending institutions and enhanced financing opportunities for borrowers and investors in buildings and infrastructure.
- Heightened stability in the insurance and reinsurance industries.
- Increased construction activity and jobs associated with achieving resilience.
- Enhanced community abilities to attract and retain quality developers and businesses.
- A reduction in the amount of damaged and contaminated materials and contents after a disaster event, which initially may pose health hazards and then must be disposed of in landfills or by incineration.

Even beyond the benefits listed above, the businesses themselves and society at-large can benefit from the added value of co-benefits—that is, the indirect benefits that arise from heightened resilience. Businesses, for example, can capture resilience-related image improvements, which can lead to an increase in long-run profits.[7]

While incentivization serves as a strategy to realize resilience goals, the identification and implementation of effective mitigation measures is paramount. Some of the most effective

[7] See Rose. Co-benefits often occur irrespective of the occurrence of any disasters—a "no-regrets" strategy—that reaps benefits irrespective of future outcomes (p. 17). Co-benefits need to be expressed in monetary terms, so they can be viewed in the light that most businesses understand (p. 24).

mitigation strategies are outlined in Table 1. Specific mitigation measures are described with a relative magnitude of benefit-cost expected through their implementation. The specific cost-benefit ratio of these and other measures will be identified in the forthcoming revision and expansion of the *Mitigation Saves* report.

Table 1: Leading Mitigation Options

	Flood	Wind	Earthquake	Wildfire
Residential	Elevate (Mh), remove (Hh), levee enhancement (Hh)	Shutters (Hh), roof-wall straps (Mh), roof-deck attachments (Mh), secondary water resistance (Mh), engineered tie-down systems for manufactured housing (Mh)	Brace cripple walls (Hh), strengthen soft story (Mh), secure water heater (Hm), secure furnishings and contents (Hh), purchase insurance (Ml), engineered tie-down systems for manufactured housing (Mh), drop-cover-and-hold-on training (Lh), emergency plan (Lh)	Adopt International Wildland-Urban Interface Code (Lh); require sprinklers in high-rise buildings (Lh)
Commercial	Remove buildings (Hh), elevate equipment (Mh), protect entrances (Lm), enhance levees (Hh), insure (Mm)	Shutters (Hh), roof-wall straps (Mh), roof-deck attachments (Mh), secondary water resistance (Mh); insure (Hm)	Secure MEP equipment (Hh); brace ceilings (Mh); secure furnishings, fixtures & equipment (Hh); BCP (Hh); insure (Mm); drop-cover-and-hold-on training (Lh)	Like residential
Industrial	Like commercial	Shutters (Hh), roof-deck attachments (Mh)	Like commercial	Like residential
Utilities and Transportation Lifelines	Elevate high-voltage transformers (Lm), stockpile replacement components (Lm), high-capacity culverts at road crossings (Lm)	Underground transmission and distribution lines (Mh), stockpile replacement components (Lm)	Accelerate pipe replacement (Hh), replace fragile equipment (Hh), secure equipment (Hh), adopt fuel management plan (Lh), greater design strength (Lh)	Like residential
Government	Like commercial	Like commercial	Like commercial	Like residential

Terms in parentheses (Xy) refer to recent expenditures (X: H = high, M = medium, L = low) and likely benefit-cost ratio (y: h = high, m = medium, l = low)

Building Codes

The consistent adoption and enforcement of up-to-date building codes is the fundamental means of providing the nation with a baseline level of protection from disasters. However, many states and communities either lack codes all together or are on outdated versions of the code. While adoption of the code is important, effective enforcement is key to realizing the protections intended by the code.

Building codes are developed through a national model process, but ultimately amended and adopted by state and local governments. However, given the potential financial exposure post-disaster and the impact on the nation's citizens and its economy, the federal government should maintain a strong interest in the development, adoption and enforcement of building codes. Federal participation in the national code development process (and at state and local development and adoption processes where federal science findings can be applied) would be valuable in assuring federal priorities and federal agency-supported science are recognized.

In addition to all relevant federal funding at the community or project level coming with requirements to meet or exceed the latest building codes, the federal government can provide additional support to encourage the adoption and enforcement of current building codes. As states and localities struggle to address their fiscal constraints, training budgets are often one of the first items cut. Code officials are particularly impacted by such cuts since codes are regularly updated to reflect new technologies and practices. The recent recession has exacerbated this issue by reducing the code official workforce and placing an increased burden on those who remain as construction volumes pick up.

Federal support for training of code officials and providing technical assistance for both adoptions and enforcement will provide important signals to state and local governments.

Above-Code Provisions and Programs

While building codes set a minimum level of protection, there are certainly enhanced benefits for those communities or building owners that incorporate requirements that go beyond existing codes. Communities and building owners that implement such above-code options should be recognized based on their reduced exposure to a hazard.

Preliminary estimates by MMC experts suggest that designing buildings to be 50% stronger against earthquake loads and 50% higher against wind loads can increase costs on the order of 1%. The greater strength may reduce building impairment (collapse, red-tagging and yellow-tagging) by a factor of four in a large earthquake and by a factor of ten in tornadoes.

Following devastating tornadoes, the City of Moore, Oklahoma, implemented enhanced windspeed requirements, along with 11 detailing requirements, to ensure that buildings can resist all EF-1 and 2 tornadoes, which comprise 85% of all tornadoes affecting Oklahoma, and much of the footprint of the remaining EF3, 4 and 5 tornadoes. The City of Moore's 135-mph basic windspeed requirements makes buildings 125% stronger than under its previous code and 38% stronger than under current American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) 7-10 *Minimum Design Loads for Buildings and Other Structures* requirements. The City of Moore

estimates that the code change costs on the order of $1 per square foot, which is roughly 1% additional construction cost. It therefore seems practical and potentially cost-effective for much of the rest of the United States, especially in tornado-prone portions east of the Rocky Mountains.

Existing Building Retrofits

While building codes and above-code programs are highly effective in advancing the resilience of new construction and major renovations, existing buildings make up the vast majority of the building stock. Implementing mitigation measures in existing buildings is essential to realizing community-level resilience.

In many cases, the business case for retrofit is significant, but often unclear to decision makers. Effective incentivization strategies can help address this disconnect.

One notable and oft-cited example is the seismic retrofit of Anheuser Busch's Van Nuys brewery. It underwent a retrofit program costing $11 million (slightly less than 1% of the total facility replacement cost) in the 1980s, just prior to the 1994 Northridge earthquake. Anheuser-Busch estimated that their facility would have suffered a direct property loss of about $350 million from the Northridge earthquake had there been no seismic strengthening, or $750 million, including business interruption losses—over 60 times the cost of the mitigation program (EQE International, 1999).

San Francisco's Community Action Plan for Seismic Safety (CAPSS) led that city to adopt mandatory strengthening of soft-story, high-occupancy wood-frame buildings (Porter, p. 4), which house 8% of the city's population. Local financial institutions have supported the CAPSS loans for mandatory retrofits because of their dedication to having operations in the city (Rodin, p. 145). The City of Los Angeles developed a highly publicized earthquake plan, *Resilience by Design*, that advocates mandated retrofit of soft first-story buildings and concrete buildings built before the *1976 Uniform Building Code* was enforced (Mayoral Seismic Safety Task Force, pp. 39 and 44).

FEMA could create a component under the pre-disaster mitigation grant program that would allow local communities to receive grants and distribute funds to private businesses and/or residents to implement approved mitigation strategies. Alternatively, a community could use grants to support a low-interest loan program that allows longer-term investment in private-sector mitigation, both for businesses and residences. Such a program could fund local governments to provide revolving loans to property owners. Repayment and interest funds would then be re-invested in other properties, thereby creating an on-going program.

Lifelines and Utilities

A recent Institute project for the Department of Homeland Security Office of Infrastructure Protection looked at the opportunity to support community resilience by development of a Critical Infrastructure Security and Resilience Risk Management Process (CISR-RMP).[8] This CISR-RMP

[8] See *The Case for a Business Process Engineering Approach to Managing Security and Resilience Of Lifeline Infrastructures and Regional Communities* (https://www.nibs.org/resource/resmgr/IRDP/CISR-RMP_WhtPpr151116.pdf) for a summary of the project and *A Business Process Engineering Approach to Managing*

is intended to provide a workable, scalable, repeatable, defensible, integrable and practical process that lifeline critical infrastructures (CIs), local governments (especially emergency management) and regional public-private partnerships (P3s) or coalitions can use collaboratively to rationalize the allocation of scarce and constrained resources for security and resilience. Such a process would be fully integrated with on-going, significant business processes, such as asset management, continuity planning and capital development planning and budgeting, to assure risk management becomes a standard, routine business practice and avoids duplicative data collection or evaluation processes.

Significant portions of the human, material and economic losses from disasters occur because such events disrupt the delivery of vital services of lifeline CIs, including energy, water and waste water, transportation and communications. Without these CIs, communities can neither recover nor long survive. Any one infrastructure is interdependent with others, so the direct loss of one is exacerbated as an initial failure cascades to other infrastructures in a "chain reaction" that can spread losses widely throughout a region and beyond. Additionally, such infrastructures face long-term underinvestment in maintenance, rehabilitation and replacement, even as population and demand for their services increase. This underinvestment has stretched existing infrastructures to meet higher demand by operating closer to their design maxima and keeping aging facilities in service well beyond their design lives, making them more vulnerable to whatever hazards may occur.

Some large and forward-thinking jurisdictions and utilities have adopted sophisticated risk management as standard operating procedures—often using unique, proprietary or narrowly threat-specific risk analysis methods that cannot readily be transferred or integrated. Outside of these, most lifelines and local jurisdictions have actually performed very little risk analysis that leads to significant decisions and no resilience analysis beyond continuity of operations/continuity of government planning. Most jurisdictions and lifeline operators have chosen to simply comply with federal and state requirements (often at a cursory level), or treat risk management as a periodic exercise (e.g. five-year special event). Several stated that requirements from an external authoritative source (e.g., higher government, industry standards, or regulatory agency) can ease the allocation of the time and limited funds to risk analysis because it removes the need to justify the effort.

One reason for the limited use of risk analysis tools is the widely held belief among local agencies and publicly owned utilities that if disaster strikes, the federal or state governments will step in to pay for the majority of the costs of recovery and restoration, thus discounting the value of investments in prevention, protection or pre-event mitigation. One respondent went so far as to say, "Investing 100-cent dollars of local taxpayer or ratepayer money *before* a highly uncertain future event seems irrational compared to paying 25-cent dollars of local taxes [the typical local share, with 75% from the federal government] *after* the event has become a certainty, *if and when* it ever does."

A near universal issue, especially in the private sector, is fear of legal liability and negligence suits associated with conducting risk analyses and then experiencing casualties or damages due to a known risk that was determined to be too low a priority to justify investment. Another issue is the

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Security and Resilience of Lifeline Infrastructures (https://www.nibs.org/resource/resmgr/IRDP/IP_CISR-RMP_FnlRpt.pdf) for the project final report.

costs associated with identifying risk that requires substantial investment to mitigate, but little or no incremental revenue or routine cost savings.

To support an effective CISR-RMP, the following components are required:

- Compatible risk and resilience tools across sectors to support comparability, interdependencies analysis and roll-up into increasingly larger pictures of community, state, region and national resilience.
- Tools developed through research, development and deployment efforts with long-term support, accompanied by development of a detailed protocol for defining the minimum effective set of data, and establishing confidentiality safeguards and penalties for violations.

Conclusion

In recent years FEMA, other federal agencies and private-sector organizations have been engaged in an effort to identify ways to reduce the impact of disasters on the American public and the infrastructure within our communities. Even before this effort, the Institute had been working on providing guidance and science to improve the built environment and strengthen our buildings and infrastructure against all hazards, natural and man-made. While these efforts have made significant improvements in building codes, new construction and some local communities, they have not penetrated privately owned property as much as we would like. Government can only do so much, and the remainder requires incentivizing private property owners into making the necessary steps. To that end, government can help or hinder progress with the policies it implements. Removing existing impediments can help spur private-sector entities to adopt incentives that can lead to increased resilience and the subsequent reduction in losses. Likewise, new regulation could stifle progress and increase the long-term costs to the American taxpayer. This testimony provides a pathway or roadmap for the creation of incentives that could move hazard mitigation forward. Your assistance with removing obstacles and providing good public policy and leadership is necessary to help move all of the stakeholders in the right direction.

This testimony has identified many possible incentivization strategies to support mitigation against hazards. The next step is implementing the public-private incentives to support resilience. These include expanding existing programs or creating new programs (such as those modeled on successful green building programs); and developing supporting business and investment processes, programs tailored to utilities and community-based initiatives. With these approaches, resilience should become part of accepted business practices, and integral to maintaining and enhancing the nation's economy.

Recommendations for Congressional Action

- Support the development and adoption of current, strong building codes by:
    - Requiring all construction projects provided with federal dollars meet or exceed the latest building codes.
    - Requiring all states and localities that receive funding associated with community development, infrastructure, public safety or community governance to adopt and effectively enforce building codes that meet or exceed the latest building codes. The

requirements to adopt and enforce energy codes as required by the American Recovery and Reinvestment Act resulted in a marked increase in code adoptions.
  - Requiring all buildings that house federal employees (whether leased or owned) to meet or exceed the latest building codes at the time of first occupancy and after subsequent substantial renovations.
  - Establishing a cross-agency [DHS/FEMA, the U.S. Department of Housing and Urban Development (HUD), National Institute of Standards and Technology (NIST), U.S. Department of Energy (DOE)] program focused on providing scientific and economic data associated with the effectiveness of building codes and their impacts on communities, education and training for code professionals, technical assistance and evaluation tools for code department effectiveness.
  - Requiring federal agencies to actively engage in the codes and standards development process, alongside industry stakeholders, to assure the consideration of federal priorities and the incorporation of federally supported research findings. [For example, the Building Seismic Safety Council (BSSC) Code Resource Support Committee (CRSC) under the sponsorship of FEMA monitors and contributes to the model codes and standards development process particularly, for the *International Building Code* (IBC), the *International Existing Building Code* (IEBC) and the *International Residential Code* (IRC) to ensure that they remain substantially equivalent to the latest edition of the *NEHRP Recommended Provisions* as defined by the ICSSC under Executive Order 13747 as well as other FEMA earthquake design guidance publications for new and existing buildings. The CRSC also supports related activities such as outreach and education materials to ensure that seismic hazards continue to be addressed. The CRSC also develops and submits changes on material that is not (or is inadequately) addressed by the *NEHRP Recommended Seismic Provisions* in other relevant standards publications. The CRSC works with representative organizations, such as ASCE, IBHS, National Association of Home Builders (NAHB) and Structural Engineers Association of California (SEAOC), to identify and address these issues. FEMA should develop coordinated training for code officials at the federal level—as is done for fire officials at the National Fire Academy.]
- Encourage investment in mitigation by the private sector through enhancing existing federal programs by:
  - Expanding federal home renovation programs to include mitigation improvements.
  - Reducing interest rates for residential mortgages, provided through Fannie Mae and Freddie Mac, on properties built to approved mitigation standards. This approach was recently introduced by Fannie Mae for mortgages on green-certified residential properties.
  - Encouraging the Securities Exchange Commission to recognize investments by resilience-based real estate investment trusts (REITs), private equity funds and bond issuances. Resiliency strategies would reduce investment risk and improve portfolio operating performance. Congress may also wish to require disclosure of vulnerabilities to disasters in SEC filings.
  - Incorporating technical assistance and resilience requirements into Small Business Administration (SBA) loans, guaranteed by the federal government and made by private lenders or community development financial institutions,

to finance building resiliency upgrades. SBA loans are already a key source of building acquisition and renovation financing for small businesses, although such loans lack specific resiliency requirements.
    - Offering federal tax incentives for building owners participating in mitigation programs. Such incentives can parallel those provided for energy efficiency and green buildings.
    - Offering federal grant programs to support participation in approved mitigation initiatives.
- Federal investments and programs should reflect the importance of investment in mitigation by:
    - Encouraging federal, state and local agencies to share their resilience strategies (to the extent practical) with the private sector to both demonstrate what is possible and to build private-sector demand and capacity. Include the anticipated life-cycle costs where appropriate.
    - Funding federal agency mitigation programs at a level commensurate with the future exposure avoided.

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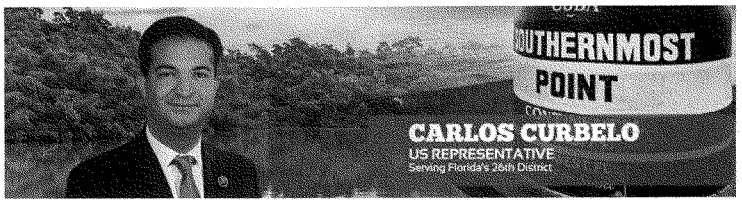

FOR IMMEDIATE RELEASE
MEDIA CONTACT: Brittany Martinez at (202) 225-2778
or Curbelopress@mail.house.gov

Curbelo and Sires Introduce Disaster Mitigation Bill

Washington, D.C.—Today, Reps. Carlos Curbelo (FL-26) and Albio Sires (NJ-08) introduced H.R. 5177, the National Mitigation Investment Act of 2016 (NMIA).

The National Mitigation Investment Act of 2016 works to alleviate losses to residential and commercial property following a natural disaster through pre-disaster preventative measures. It would provide incentives for the adoption and active enforcement of state building codes. It would also amend the Robert Safford Disaster Relief and Emergency Assistance act to allow the president to increase mitigation assistance following a natural disaster by 4% of the estimated aggregate amount if a state is enforcing building codes. Additionally, H.R. 5177 would encourage states to require that local governments use a current version of a nationally applicable model building code that addresses natural hazards as a basis for design and construction. Finally, NMIA would direct the FEMA Administration to establish a pilot program to award grants to state and local governments to encourage the adoption and enforcement of nationally recognized building codes.

"The residents of both Florida and New Jersey have had to rebuild communities after the devastating effects of catastrophic natural disasters. Returning to a life of normalcy is not only tremendously difficult, but can take multiple years. Furthermore, chronic tidal flooding poses a significant threat to real estate along our waterfront communities. This undoubtedly affects insurance rates, property values, clean water supplies, and general public welfare. The National Mitigation Investment Act would help to alleviate the burdens experienced post-natural disaster through pre-emptive methods by encouraging state and local governments to adhere to nationally recognized building codes. I thank Rep. Sires for being my fellow co-lead on this bill—it's important that we put measures in place to protect the future stability of our nation," said Rep. Curbelo.

"Superstorm Sandy, like other storms around the country, exposed just how vulnerable our infrastructure is. As these natural disasters continue to occur more frequently, it is time to apply the lessons learned to prevent similar destruction from occurring in the future," said Rep. Sires. "The National Mitigation Investment Act will aid communities in implementing pre-disaster mitigation tools to avert further crisis."

.....
(Original Signature of Member)

114TH CONGRESS
2D SESSION

H. R. _____

To improve disaster mitigation programs, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. CURBELO of Florida introduced the following bill; which was referred to the Committee on _____

A BILL

To improve disaster mitigation programs, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Mitigation Investment Act".

SEC. 2. FINDINGS.

Congress finds that—

(1) mitigation planning is the foundation for saving lives, protecting residential and commercial

1 properties, and developing disaster resistant commu-
2 nities;
3 (2) recent studies of the performance of build-
4 ing structures during disasters have demonstrated
5 that the adoption and active enforcement of State
6 building codes have greatly reduced residential and
7 commercial property damage and personal injury re-
8 sulting from major disasters;
9 (3) modern building codes govern all aspects of
10 construction and are designed to ensure that single-
11 family residential dwellings and commercial struc-
12 tures are protected from natural disasters;
13 (4) the people of the United States rely on ac-
14 tive enforcement of modern building codes for assur-
15 ance that minimum standards for reducing personal
16 injuries and property damages have been met in the
17 buildings they live in, work in, and visit everyday;
18 (5) active enforcement of building codes plays
19 an increasingly important role in public safety and
20 loss prevention of residential and commercial prop-
21 erty;
22 (6) active enforcement of building codes based
23 on nationally recognized models reduces the need for
24 public disaster aid, creates sustainable communities,
25 promotes a level and consistent playing field for de-

1 sign professionals, suppliers, and builders, and can
2 contribute to the durability of residential and com-
3 mercial structures;
4 (7) under the Robert T. Stafford Disaster Re-
5 lief and Emergency Assistance Act (42 U.S.C. 5121
6 et seq.), the Federal Emergency Management Agen-
7 cy provides Federal assistance to States for mitiga-
8 tion efforts;
9 (8) it is beneficial and appropriate to expand
10 Federal mitigation assistance to encourage States to
11 take a comprehensive and integrated approach to
12 disaster loss reduction; and
13 (9) it is beneficial to the Federal Government
14 and appropriate that Federal mitigation assistance
15 be used to encourage the adoption and active en-
16 forcement of State building codes as a disaster miti-
17 gation strategy under the auspices of a comprehen-
18 sive disaster loss reduction plan.
19 **SEC. 3. PURPOSES.**
20 The purposes of this Act are to—
21 (1) substantially mitigate the occurrence of loss
22 to residential and commercial property, reduce and
23 minimize damage when losses to residential and
24 commercial property occur, improve the quality and

1 value of residential and commercial property, and re-
2 duce the need for public disaster aid;
3 (2) provide incentives for the adoption and ac-
4 tive enforcement of State building codes;
5 (3) encourage States to continue their key re-
6 sponsibility to coordinate all State and local activi-
7 ties relating to hazard evaluation and mitigation, as
8 specified in section 201.3(c) of title 44, Code of Fed-
9 eral Regulations, through the adoption and active
10 enforcement of State building codes; and
11 (4) encourage States to require that local gov-
12 ernments use a current version of a nationally appli-
13 cable model building code that address natural haz-
14 ards as a basis for design and construction of State-
15 sponsored mitigation projects described in section
16 201.5(b)(4)(iv) of title 44, Code of Federal Regula-
17 tions.

18 **SEC. 4. ENHANCED MITIGATION ASSISTANCE.**

19 (a) ADDITIONAL MITIGATION ASSISTANCE.—Section
20 404 of the Robert T. Stafford Disaster Relief and Emer-
21 gency Assistance Act (42 U.S.C. 5170c) is amended by
22 adding at the end the following:
23 "(f) ADDITIONAL MITIGATION ASSISTANCE.—
24 "(1) IN GENERAL.—If, at the time of a declara-
25 tion of a major disaster, the affected State has in

1 effect and is actively enforcing throughout the State
2 an approved State building code, the President may
3 increase the maximum total of contributions under
4 this section for the major disaster, as specified in
5 subsection (a) and section 322(e), by an amount
6 equal to 4 percent of the estimated aggregate
7 amount of grants to be made (less any associated
8 administrative costs) under this Act with respect to
9 the major disaster.

10 "(2) SUBMISSION.—To be eligible for an in-
11 creased Federal share under paragraph (1), a State
12 shall submit its State building code to the President
13 for approval.

14 "(3) APPROVAL.—The President shall approve
15 a State building code submitted under paragraph (2)
16 if the President determines that the building code—

17 "(A) is consistent with the most recent
18 version of a nationally recognized model build-
19 ing code;

20 "(B) has been adopted by the State within
21 6 years of the most recent version of the na-
22 tionally recognized model building code; and

23 "(C) uses the nationally recognized model
24 building code as a minimum standard.

1 "(4) PERIODIC UPDATES.—The President, act-
2 ing through the Administrator, shall set appropriate
3 standards, by regulation, for the periodic update, re-
4 submittal, and approval of a State building code ap-
5 proved by the President in accordance with para-
6 graph (3) that are consistent with similar require-
7 ments related to mitigation planning under section
8 322.
9 "(5) REGULATIONS.—Not later than 180 days
10 after the date of enactment of this subsection, the
11 President, acting through the Administrator of the
12 Federal Emergency Management Agency, shall issue
13 such regulations as may be necessary to carry out
14 this subsection.
15 "(6) DEFINITIONS.—For purposes of this sub-
16 section, the following definitions apply:
17 "(A) ACTIVELY ENFORCING.—The term
18 'actively enforcing' means effective jurisdic-
19 tional execution of all phases of a State building
20 code in the process of examination and approval
21 of construction plans, specifications, and tech-
22 nical data and the inspection of new construc-
23 tion or renovation.
24 "(B) NATIONALLY RECOGNIZED MODEL
25 BUILDING CODE.—The term 'nationally recog-

1 nized model building code' means a building
2 code for residential and commercial construc-
3 tion and construction materials that—
4 "(i) has been developed and published
5 by a code organization in an open con-
6 sensus type forum with input from na-
7 tional experts; and
8 "(ii) is based on national structural
9 design standards that establish minimum
10 acceptable criteria for the design, construc-
11 tion, and maintenance of residential and
12 commercial buildings for the purpose of
13 protecting the health, safety, and general
14 welfare of the building's users against nat-
15 ural disasters.
16 "(C) STATE BUILDING CODE.—The term
17 'State building code' means requirements and
18 associated standards for residential and com-
19 mercial construction and construction materials
20 that are implemented on a statewide basis by
21 ordinance, resolution, law, housing or building
22 code, or zoning ordinance. At a minimum, such
23 requirements and associated standards shall
24 apply—

1 "(i) to construction-related activities
2 of residential building contractors applica-
3 ble to single-family and 2-family residential
4 structures; and
5 "(ii) to construction-related activities
6 of engineers, architects, designers, and
7 commercial building contractors applicable
8 to the structural safety, design, and con-
9 struction of commercial, industrial, and
10 multifamily structures.
11 "(g) USE OF ASSISTANCE.—Recipients of hazard
12 mitigation assistance provided under this section and sec-
13 tion 203 may use the assistance to conduct activities to
14 help reduce the risk of future damage, hardship, loss, or
15 suffering in any area affected by a flood, including—
16 "(1) adaptation of existing infrastructures, in-
17 cluding enhancements to both built and natural envi-
18 ronments based on future flood probabilities;
19 "(2) maintenance of existing surge protection
20 infrastructure;
21 "(3) waterfront resilience, including creation of
22 bulkheads, dune enhancement, beach re-nourish-
23 ment, living seawalls and seashores and levees;
24 "(4) voluntary acquisition of repeatedly flooded
25 properties;

1 "(5) flood water diversion, removal, treatment,
2 and storage infrastructure projects;
3 "(6) flood water distribution along street infra-
4 structure systems, including canal streets, absorbent
5 streets, floodable parks, and underground cisterns;
6 and
7 "(7) enhanced infrastructure for increasing re-
8 silience of the freshwater supply to salt water intru-
9 sion.".
10 (b) PREDISASTER HAZARD MITIGATION.—
11 (1) USES OF TECHNICAL AND FINANCIAL AS-
12 SISTANCE.—Section 203(e)(1)(B) of the Robert T.
13 Stafford Disaster Relief and Emergency Assistance
14 Act (42 U.S.C. 5133(e)(1)(B)) is amended—
15 (A) by striking "or" at the end of clause
16 (ii);
17 (B) by striking the period at the end of
18 clause (iii) and inserting "; or"; and
19 (C) by adding at the end the following:
20 "(iv) to establish and operate a build-
21 ing department and carry out enforcement
22 activities to implement a State building
23 code approved under section 404(f).".

1 (2) CRITERIA FOR ASSISTANCE AWARDS.—Sec-
2 tion 203(g) of such Act (42 U.S.C. 5133(g)) is
3 amended—
4 (A) by striking "and" at the end of para-
5 graph (9);
6 (B) by redesignating paragraph (10) as
7 paragraph (11); and
8 (C) by inserting after paragraph (9) the
9 following:
10 "(10) the extent to which the State or local
11 government is carrying out activities to implement a
12 State building code approved under section 404(f);
13 and".

14 **SEC. 5. COMPREHENSIVE STUDY OF DISASTER COSTS AND**
15 **LOSSES.**

16 (a) ESTABLISHMENT.—Not later than 30 days after
17 the date of enactment of this Act, the Administrator of
18 the Federal Emergency Management Agency shall com-
19 mence, through the National Advisory Council, a com-
20 prehensive study related to disaster costs and losses (re-
21 ferred to in the subsection as the "Study").
22 (b) ADDITIONAL MEMBERSHIP.—For the purposes of
23 the study, as soon as practicable after the date of enact-
24 ment of this section, the Administrator shall appoint addi-

1 tional qualified members to the National Advisory Council
2 from the following:
3 (1) Individuals that have the requisite technical
4 knowledge and expertise on issues related to disaster
5 costs and losses.
6 (2) Representatives of the insurance industry.
7 (3) Experts in and representatives of the con-
8 struction and building industry.
9 (4) Individuals nominated by national organiza-
10 tions representing local governments and personnel.
11 (5) Academic experts.
12 (6) Vendors, developers, and manufacturers of
13 systems, facilities, equipment, and capabilities for
14 emergency management services.
15 (7) Representatives of such other stakeholders
16 and interested and affected parties as the Adminis-
17 trator considers appropriate.
18 (c) CONSULTATION WITH NONMEMBERS.—The Na-
19 tional Advisory Council shall consult with other relevant
20 agencies and groups that are not represented on the Na-
21 tional Advisory Council to consider research, data, find-
22 ings, recommendations, innovative technologies and devel-
23 opments, including—
24 (1) entities engaged in federally funded re-
25 search; and

1 (2) academic institutions engaged in relevant
2 work and research.
3 (d) RECOMMENDATIONS.—Not later than 120 days
4 after the date of enactment of this Act, the National Advi-
5 sory Council shall convene to evaluate the following topics
6 and develop recommendations for reducing disaster costs
7 and losses:
8 (1) DISASTER LOSSES.—
9 (A) COST TRENDS.—Trends in disaster
10 costs including loss of life and injury, property
11 damage to individuals, the private sector, and
12 each level of government (State, local and trib-
13 al) since the enactment of the Robert T. Staf-
14 ford Disaster Relief and Emergency Assistance
15 Act (42 U.S.C. 5121 et seq.), to the extent data
16 is available.
17 (B) CONTRIBUTING FACTORS.—Contrib-
18 uting factors such as shifting demographics and
19 aging infrastructure and their impacts on the
20 trends in disaster losses and costs.
21 (2) DISASTER COSTS.—
22 (A) TRENDS IN DECLARATIONS.—Trends
23 in disaster declarations, including factors con-
24 tributing to the trends.

1 (B) DISASTER ASSISTANCE.—Disaster as-
2 sistance available from all Federal sources, in-
3 cluding descriptions of programs, eligibility and
4 authorities, where assistance has been used geo-
5 graphically, how quickly the funds are used,
6 how that assistance is coordinated among the
7 various agencies and departments, and rec-
8 ommendations for ways to improve the effec-
9 tiveness and efficiency of the delivery of such
10 assistance.
11 (C) COSTS.—Disaster costs borne by the
12 private sector and individuals.
13 (3) DISASTER ROLES AND RESPONSIBILITY.—
14 Fundamental principles that should drive national
15 disaster assistance decision making, including the
16 appropriate roles for each level of government, the
17 private sector and individuals.
18 (4) REDUCTION OF COSTS AND LOSSES.—
19 (A) MECHANISMS AND INCENTIVES.—
20 Mechanisms and incentives, including tax incen-
21 tives, to promote disaster cost reduction, miti-
22 gation, and recovery, including cost data, pro-
23 jections for the return on investment, and
24 measures of effectiveness.

1 (B) IDENTIFICATION OF CHALLENGES.—
2 Identify fundamental legal, societal, geographic
3 and technological challenges to implementation.
4 (5) LEGISLATIVE PROPOSALS.—Legislative pro-
5 posals for implementing the recommendations in the
6 report compiled pursuant to the requirement in sec-
7 tion 1111 of the Sandy Recovery Improvement Act
8 of 2013 (Public Law 113–2).
9 (e) REPORT TO ADMINISTRATOR AND CONGRESS.—
10 (1) Not later than 1 year after the date of en-
11 actment of this section, the National Advisory Coun-
12 cil shall submit a report containing the data, anal-
13 ysis, and recommendations developed under sub-
14 section (d) to—
15 (A) the Administrator of the Federal
16 Emergency Management Agency;
17 (B) the Committee on Transportation and
18 Infrastructure of the House of Representatives;
19 and
20 (C) the Committee on Homeland Security
21 and Governmental Affairs of the Senate.
22 (2) DATA AVAILABILITY.—The Administrator
23 shall make the data collected pursuant to this sec-
24 tion publically available on the Agency's website.

1 **SEC. 6. ENHANCED MITIGATION INCENTIVES PILOT PRO-**
2 **GRAM.**

3 (a) USE OF BUILDING CODES.—The Administrator
4 of the Federal Emergency Management Agency shall es-
5 tablish and conduct a pilot program to award grants to
6 State, local, and tribal governments to aid and encourage
7 the adoption and active enforcement of nationally recog-
8 nized model building codes, State building codes, and re-
9 lated mitigation measures.

10 (b) GOALS.—The goals of the grant program are—
11 (1) reducing disaster response and recovery
12 costs to Federal, State, local, and tribal governments
13 by—
14 (A) increasing the resilience of buildings;
15 and
16 (B) reducing the amount of damage and
17 loss that occurs due to disasters and chronic
18 flooding;
19 (2) incentivizing communities and individuals to
20 adopt smart development and mitigation measures
21 in advance of disasters.

22 (c) MINIMUM REQUIREMENTS.—The Administrator
23 shall—
24 (1) not later than 180 days after the date of
25 enactment of this Act, provide grant awards annu-
26 ally thereafter;

1 (2) establish criteria for awarding grants on a
2 competitive basis based on the demonstrated need of
3 the applicants and the project's ability to accomplish
4 the goals outline in subsection (b); and
5 (3) require non-Federal matching funds in an
6 amount equal to not less than 25 percent of the
7 total amount of the grant.
8 (d) REPORTS.—
9 (1) ANNUAL REPORTS.—During the period in
10 which the pilot program is conducted under this sec-
11 tion, the Administrator shall submit, annually, to
12 the Committee on Transportation and Infrastructure
13 of the House of Representatives and the Committee
14 on Homeland Security and Governmental Affairs of
15 the Senate, a report on the grants provided, the
16 projects undertaken, and the outcomes expected.
17 (2) FINAL REPORT.—Not later than 180 days
18 after termination of the pilot program, the Adminis-
19 trator shall submit a final report to the Committee
20 on Transportation and Infrastructure of the House
21 of Representatives and the Committee on Homeland
22 Security and Governmental Affairs of the Senate.
23 The final report shall include—
24 (A) a review and evaluation of the grant
25 awards;

1 (B) recommendations on any permanent
2 changes to the Robert T. Stafford Disaster Re-
3 lief and Emergency Assistance Act; and
4 (C) a progress evaluation in meeting the
5 goals described in subsection (b).
6 (e) TERMINATION.—The authorities under this sec-
7 tion shall terminate on December 31, 2021.

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Written Testimony for the Record for the Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management from: Mary Ellen Sprenkel, President & CEO

May 12th, 2016

The Honorable Lou Barletta
Chairman
Subcommittee on Economic Development,
Public Buildings and Emergency
Management
2251 Rayburn House Office Building
Washington, DC 20515

The Honorable André Carson
Ranking Member
Subcommittee on Economic Development,
Public Buildings and Emergency
Management
2251 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Barletta and Ranking Member Carson,

Thank you for the opportunity to provide testimony to the Subcommittee on Economic Development, Public Buildings, and Emergency Management for the hearing on "Controlling the Rising Cost of Federal Responses to Disaster." We're happy to share the important role that our Corps, national service, and AmeriCorps can and do play in disaster mitigation, response, and recovery. We would like to work with your subcommittee on better leveraging Corps' resources in these areas through future legislation and hope you view Corps as a partner in trying to more effectively, and cost-effectively, prepare for, respond to, and recover from disasters. We look forward to following up with the subcommittee and exploring ways to accomplish better disaster mitigation and response in the future.

The Corps Network represents our country's 130+ Service and Conservation Corps (Corps). Based on the idea of the Civilian Conservation Corps (CCC), today's Corps are private and locally-run and provide youth and veterans with the opportunity to advance their education, obtain critical career-readiness skills and credentials, and earn a stipend while they perform important conservation-related service projects in communities and on public lands. Collectively, our Corps enroll 24,000 Corpsmembers, engage an additional 100,000 volunteers, and complete thousands of service projects valuing hundreds of millions of dollars each year, with volunteer hours valued at nearly $10 million each year.

Our Corps provide disaster preparedness, mitigation/resiliency, response and recovery services across the country. Some Corps are more attuned to their local and state needs while many others will deploy to major disasters wherever they occur as part of the AmeriCorps Disaster Recovery Team (ADRT). In the frame of disaster costs, Corps present an opportunity to not only scale-up this model of effective disaster response and recovery but help communities around the country by providing disaster mitigation and resiliency projects performed by Corps, thereby lessening disaster costs in the future. In addition to lower federal disaster costs, communities and states would benefit from the projects, and thousands more youth and veterans would gain additional career skills and hands-on work experience each year through a tested and effective workforce development and partnership-model.

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Since the 1950's Corps have worked in communities around the country, meeting some of the most vital public needs while also leveraging significant additional private funding and resources—saving the government money in the long run. Corps add low-cost and effective capacity in all four phases of emergency management—preparedness, mitigation, response, and recovery. Corps help communities and state governments leverage their local and federal disaster recovery resources, and also more effectively respond and manage the volunteer and recovery infrastructure. Corps have capabilities in all areas of disaster and emergency management and their history of working with other nonprofits and local and state municipalities while engaging youth and veterans contributes significantly to a community's overall resilience.

According to a report entitled "Investing in Resilience: Investing in the Whole Community[1]" by the National Preparedness Leadership Initiative, "Volunteers and voluntary agencies are a critical component to aiding a community's recovery after a disaster event. The ability to harness and coordinate the power and efforts of the volunteer is essential to maximize and accelerate the recovery and resiliency rate." Virtually all federal project partners (99.6%) say they would work with Corps again and an independent study[2] commissioned by the National Park Service found an over 50 percent cost savings in using Corps on projects. In addition, the Corps Model has been rigorously tested [3]and proven to be an effective youth development model and a recent study found that Corpsmembers gained significant career and leadership skills like teamwork, community engagement, critical thinking, and communication through their term of service.

ADRT Corps working in partnership with the Corporation for National and Community Services AmeriCorps Disaster Services Unit (DSU)[4] provide a range of cost-effective and critical services around the country that leverage local resources and funding and help make more of an impact with limited federal recovery funds. Projects can include all phases of emergency management such as:

Preparedness

- Preparedness Education
- Accessibility improvements on homes and shelters

Mitigation

- Environmental projects to mitigate the effects of flooding and hurricanes
- Fuel reduction and prescribed burning to mitigate wildland fires
- Public Information Outreach

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[1] http://www.nationalservice.gov/sites/default/files/upload/InvestingInResilience_DSU.pdf

[2] http://www.corpsnetwork.org/sites/default/images/pdfs/Resource%20Library/NPS%20PFMD%20Conservation%20Corps%20Project%20Analysis%20FINALv2.pdf

[3] http://www.corpsnetwork.org/impact/research

[4] http://www.nationalservice.gov/focus-areas/disaster-services

Immediate Response

- Debris & Materials Removal
- Environmental Remediation (mucking & gutting for example)
- Volunteer Base Camp Setup and Operation
- Operations Center Setup and Support
- Special Needs Assistance

Continued Response

- Call Center Support /Setup/Operations
- Shelter Operations
- Pet Shelter Operations
- Volunteer Coordination
- Warehouse Management
- Public Information Outreach

Recovery

- Home Construction/Repair
- Public Facilities Renovation
- Needs Assessment
- Case Management
- Disaster Recovery Center Support
- Long-Term Recovery Committee Support
- Volunteer Reception Center Support

For example, our Corps and other partners, working with CNCS' DSU provided more than 110,000 participants that contributed more than 10 million hours to relief, recovery, and rebuilding efforts in response to Hurricane Katrina. They assisted more than 3 million people, recruited or managed 650,000 volunteers, completed nearly 55,000 damage assessments, refurbished more than 10,500 homes, constructed 2,000 new homes, served 1.6 million meals, and distributed more than 6,000 tons of food.

Other successful examples, as found in the Corporation for National and Community Service's Congressional Budget Justification for FY2017 and their publication "National Service and Disaster" include:

- In response to heavy rainfall that led to flooding and landslides in Grays Harbor County, WA; 45 AmeriCorps members with Washington Conservation Corps conducted damage assessments and debris removal of flood-damaged homes, and leveraged additional volunteers by supporting the Volunteer Reception Center. They were able to conduct nearly 80 damage assessments and leverage an additional 225 volunteers to remove more than 400 cubic yards of debris.[5]

[5] http://www.nationalservice.gov/sites/default/files/documents/CBJ_Report_FY2017_1.pdf

- Following severe weather and tornadoes that struck Van, Texas on May 11, 2015; nine AmeriCorps members from American Youth Works Texas Conservation Corps were called by the state Emergency Management Agency to set up and manage a Volunteer Reception Center. They members were able to coordinate and manage more than 1,000 volunteers that arrived to assist with the cleanup efforts. Just weeks later, with continued severe weather and flooding in Texas, record amounts of rainfall flooded many communities. Before the rain had even stopped, Texas Conservation Corps deployed 28 AmeriCorps members to manage two volunteer reception centers in San Marcos and Wimberley, Texas. Within the first day they registered over 1,000 volunteers[6]

- Joplin Tornado - Hours after the nation's deadliest tornado in 60 years struck Joplin, Missouri on May 22, 2011, AmeriCorps members arrived on the scene. In the first year, more than 350 AmeriCorps members provided vital services including homeowner assistance and casework, removing tons of debris, offering legal services, operating donation and distribution warehouses, and coordinating donations. AmeriCorps members mobilized or supervised more than 75,000 volunteers who gave 520,000 hours of service and provided disaster assistance to more than 2,200 Joplin households. AmeriCorps was instrumental in mobilizing volunteers and donations which saved the city $17.7 million it would have otherwise had to pay in matching costs for recovery funds.[7]

- Hurricane Sandy - More than 3,600 AmeriCorps members from programs across the nation participated in the federal response in six states affected by Hurricane Sandy. They have mucked and gutted more than 3,700 homes, including 1,443 in New Jersey and 1,958 in New York. They also have leveraged the help of 30,000 volunteers, collaborated with the American Red Cross in operating 45 shelters, and coordinated with more than 200 nonprofits and community-based organizations.[8]

We appreciate the efforts of the Chairmen and Ranking Members of the Subcommittee and full Committee on drafting and passing the FEMA Disaster Assistance Reform Act of 2015. As this legislation continues toward becoming law, we hope to work with the subcommittee on recognizing the important, and expanded, role Corps do and could play by providing authorization and support for disaster mitigation and resiliency projects that are high quality and low cost, but also in effective response and longer-term recovery services. We also invite you and subcommittee members to visit a Corps program anytime to see first-hand the high quality projects provided for communities and states around the country.

As providers of national service opportunities for youth and veterans, Corps are also effective at building community resilience and the next generation of community leaders which is important in preparedness but also longer-term recovery. Our service projects meet some of the most vital

[6] http://www.nationalservice.gov/sites/default/files/documents/CBJ_Report_FY2017_1.pdf
[7] http://www.nationalservice.gov/sites/default/files/upload/disasterpub.pdf
[8] http://www.nationalservice.gov/sites/default/files/upload/disasterpub.pdf

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public needs in communities around the country, leverage significant additional private funding and resources, and save the government money in the long run. A recent study put the return on investment in AmeriCorps at 4:1[9].

As you can see, Corps working in their local communities or deploying to major disasters as they occur can improve communities, states, and the federal government's response but also save money. With your support for additional Corps' deployment in response to disasters, but also additional projects for preparedness and mitigation/resiliency, longer term response and recovery costs could be reduced as well. We respectfully urge the subcommittee to work with Corps as a partner in trying to more effectively, and cost-effectively, prepare for, respond to, and recover from disasters. Thank you again for the opportunity to provide testimony on this important topic.

Sincerely,

Mary Ellen Sprenkel

Mary Ellen Sprenkel
President & CEO

[9] http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/FranklinProject_EconomicValue_final.pdf

1275 K St. NW, Suite 1050 | Washington, DC 20005 | p: 202.737.6272 | f: 202.737.6277

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