

**CREATING A MORE RESILIENT NATION:
STAKEHOLDERS' PERSPECTIVES**

HEARING
BEFORE THE
SUBCOMMITTEE ON
EMERGENCY PREPAREDNESS,
RESPONSE, AND RECOVERY
OF THE
COMMITTEE ON HOMELAND SECURITY
HOUSE OF REPRESENTATIVES
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CREATING A MORE RESILIENT NATION: STAKEHOLDERS' PERSPECTIVES

Tuesday, May 17, 2022

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOMELAND SECURITY,
SUBCOMMITTEE ON EMERGENCY PREPAREDNESS,
RESPONSE, AND RECOVERY,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:05 a.m., in room 310, Cannon House Office Building, Hon. Val Butler Demings [Chairwoman of the subcommittee] presiding.

Present: Representatives Demings, Cammack, Higgins, Miller-Meeks, and Garbarino.

Chairwoman DEMINGS. [Audio malfunction]—and exclusion. According to the Center for Strategic & International Studies, “The years 2020 and 2021 had the highest numbers of domestic terrorist attacks and plots.” On top of the tragic loss of life in Buffalo, our Nation saw mass shootings again this same past weekend at a California church and a Texas flea market.

As we confront these challenges it is critical that our first responders are prepared and our communities are resilient. It is critical that we support legislation and support programs that improve the overall preparedness and resiliency of communities across the Nation. The Urban Area Security Initiative, also known as UASI, is one such program.

As a chief of police, I saw first-hand the benefits of UASI. Our department relied on this critical program to help keep our community safe and ensure that our first responders were ready to respond during the worst of times. UASI funding helps ensure that our first responders in Orlando and 35 other jurisdictions across the Nation are equipped and trained to respond safely and effectively during natural disasters, terrorist attacks, civil disturbances, and other crisis situations.

Last year, I introduced, H.R. 5615, the Homeland Security Capabilities Preservation Act, which recognizes the importance of preserving security capabilities achieved with UASI funding. I am pleased that the legislation passed the House this year on March 7. I will continue to do my part and push for this legislation to become law.

Last year this subcommittee held two hearings on the importance of strong communications networks. As many of us here today can attest, robust, state-of-the-art, communications technology is critically important for keeping our communities safe and building resiliency during emergencies.

FirstNet has supported thousands of public safety agencies by empowering first responders, law enforcement, and emergency managers with the tools and technology they need to coordinate their responses, thereby resulting in more favorable outcomes.

We also know climate change, too, presents a tremendous challenge and test of resiliency. We in Florida know all too well the dangers of stronger hurricanes, more frequent and severe tornadoes, and rising floodwaters. We must do more around prevention, but when disaster strikes, we must help communities recover as quickly as possible and address the special needs of underserved, rural, and urban areas.

FEMA's Building Resilient Infrastructure and Communities program is directing a portion of funds to flow to disadvantaged and underserved communities.

I am also proud to be a co-sponsor of Chairman Bennie Thompson's legislation, H.R. 7668, the "Federal Emergency Management Advancement of Equity Act", which will help make disaster response efforts fairer and more effective.

We all know that we face many challenges. But creating a more resilient Nation is the answer to meeting these challenges. We look forward to the work ahead and hearing from our witnesses today.

[The statement of Chairwoman Demings follows:]

STATEMENT OF CHAIRWOMAN VAL DEMINGS

MAY 17, 2022

Good morning; thank you for joining us today.

We are here to discuss how we can build a more resilient Nation and keep every person in Florida and across the country safe.

First responders, law enforcement, and emergency managers are the bedrock of public safety in our communities and crucial to our safety and resiliency.

We need to fund and support law enforcement and first responders so that they are ready and able to answer the call when the time comes.

We all know the challenges. Crime and violence, climate change and stronger storms, and rising levels of domestic terrorism which puts every American at risk.

This past weekend 10 Americans lost their lives in Buffalo, New York, to a domestic terrorist radicalized by ideologies of hate and exclusion that have been spread and promoted on television, at political rallies, and even here in the halls of Congress.

According to the Center for Strategic & International Studies, "the years 2020 and 2021 had the highest numbers of domestic terrorist attacks and plots."

And on top of the tragic loss of life in Buffalo, our Nation saw mass shootings this same past weekend at a California church and a Texas flea market, and other violent crime across the country.

As we confront these challenges and work to ensure that our first responders are prepared and our communities are resilient, it is critical that we support the Urban Area Security Initiative, also known as the UASI program.

During my 27-year career in law enforcement, I saw the benefits of UASI in Orlando. As a chief of police, I relied on this critical program to help keep our community safe and ensure that our officers were ready to respond if the worst should happen.

UASI funding helps ensure that our first responders in Orlando and 35 other jurisdictions across the Nation are adequately equipped and trained to do their jobs safely and effectively.

I strongly support efforts to strengthen the UASI program. As we confront violent extremists at home and abroad, this funding is critical to keeping every person who lives, works, and travels in Florida safe.

Last year, I introduced, H.R. 5615, the "Homeland Security Capabilities Preservation Act," which recognizes the importance of preserving security capabilities achieved with UASI funding for communities. I am pleased that the legislation passed the House this year on March 7. I will continue to do my part and push for this legislation to become law.

In the fall, this subcommittee held two hearings on the importance of strong communications networks. As many of us here today can attest, robust communications technology is critically important for keeping our communities safe during emergencies and building resiliency. For this reason, I introduced legislation (H.R. 6768) that would reauthorize the First Responder Network Authority, known as FirstNet.

FirstNet has supported thousands of public safety agencies by empowering first responders, law enforcement, and emergency managers with the tools and technology they need to coordinate their responses.

The program was established with resiliency in mind, and we need to continue to preserve the gains in communications it has made.

Climate change, too, presents a tremendous challenge and test of resiliency.

To be clear, the climate crisis is already upon us. We in Florida know the dangers of stronger hurricanes and rising floodwaters. We must do more to prevent these storms from worsening, and to support all communities when disaster strikes, especially those who are currently underserved and least able to bounce back.

The administration is working to ensure that underserved communities can access mitigation funds. Additionally, FEMA's Building Resilient Infrastructure and Communities, or BRIC program, is directing a portion of funds to flow to disadvantaged communities.

However, Congress still needs to pass real legislation to ensure that every American community has the tools they need to weather disasters and to rebuild afterward.

I am a proud cosponsor of Chairman Bennie Thompson's legislation, H.R. 7668, the "Federal Emergency Management Advancement of Equity Act," which will help make disaster response efforts fairer and more effective.

We all know that we face many challenges. But as we work to confront and triumph over these threats, we have an opportunity to fix old problems, improve emergency responses, support our first responders, and build a resilient, strong Nation that has the tools to defeat any challenge.

I look forward to hearing from our witnesses today about how we can work together to continue building a more resilient America.

Chairwoman DEMINGS. The Chair now recognizes the Ranking Member of the Subcommittee on Emergency Preparedness, Response, and Recovery, the gentlewoman from Florida, Mrs. Cammack, for an opening statement.

Mrs. Cammack, we can't hear you. OK. Go ahead.

Thank you to our witnesses for just standing by for just a moment please.

We will continue to work on the Ranking Member's sound issues, but at this time I call on the gentleman from Louisiana to make an opening statement on her behalf, Mr. Higgins.

Mr. HIGGINS. Thank you, Madam Chair. I am very grateful for our panelists for being with us today.

From FEMA's own mission statement the primary mission of the Federal Emergency Management Agency is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters by leading and supporting the Nation in a risk-based comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. May I say, as an American citizen born and raised in south Louisiana, working on my 61st year on God's beautiful earth here, I have lived through many brutal hurricanes and I have come to clearly understand that in the modern era the greatest challenge that the citizens of south Louisiana face are not from the storms themselves, it is from the bureaucratic challenges they face post-storm and to navigate through the assistance programs that the Federal Government has justly and righteously provided and funded with appropriated monies. These agencies and departments are very well-staffed with highly-trained and dedicated people. Yet the bureaucracy that has become manifest in

our Nation is so thick at the Federal and the State level—there is of course State components here to recovery and access the recovery programs. But somewhere along the way we have lost site of our true mission.

The committee will hear from local and State stakeholders today on how to improve FEMA's interaction and that is important. Disaster response and the subsequent recovery and mitigation efforts, start and end with local and State officials. Recovery post-disaster is far from a straightforward process.

I represent a region that we are trying to recover from two brutal storm seasons. It is like nothing I have ever seen. Hurricane Laura hit so hard and so fast, extreme winds devastated a dense area of population in my district. There wasn't one utility pole that was still standing or not heavily damaged. Every tree was down. The first responders couldn't respond. You couldn't get through the streets. It was a brutal impact and it calls for long-term recovery. The people of Louisiana are quite strong and resilient. We know how to deal with a storm, it is in our DNA. But the real difficulty we are facing right now is from the Government that is designed to help us stand back up.

So I hope that as we move forward, my colleagues, I hope that we can seek ways to change the very paradigm of disaster recovery and response and how Federal monies are delivered. Personally, I think there should be a more direct route to the local government entity or the citizen that is deserving of recovery assistance and the Federal Government has appropriated and lined up recovery assistance. I think that Congress should work very hard to streamline these processes and reduce the very burdensome and impossible-to-navigate bureaucracy.

So I hope we can discuss that today. I am very appreciative to the Chairwoman and the panelists for being here.

Chairwoman DEMINGS. We thank Mr. Higgins for that opening statement. We will come back to you for your line of questioning.

At this time I do believe the Ranking Member is prepared to make her opening statement. The gentlewoman from Florida, Mrs. Cammack.

We cannot hear you unfortunately. Wait, wait, try again.

Mrs. CAMMACK. They are saying that we can hear me on the YouTube channel.

Chairwoman DEMINGS. Yes, we can now. We can now.

Mrs. CAMMACK. OK, all right. Excellent. I guess there was a problem with the streaming to YouTube. So now that it is all worked out, I appreciate it. Thank you for everyone's patience as we worked out some of the technical difficulties in the hearing room.

All right. Chairwoman Demings, thank you so much for holding this important hearing today. I am very much looking forward to discussing the ways in which we can work together to build a more resilient Nation.

Now, June 1 marks the beginning of the 2022 Atlantic hurricane season. With this date fast approaching, it is important to remember that while we cannot control the weather we can take steps to prepare. As Floridians we are all too familiar with the destructive power of hurricanes, but what many people don't realize is that

Florida is also highly prone to tornadoes, ranking third behind Texas and Kansas with an average number of tornadoes per year.

Now, according to the National Oceanic and Atmospheric Administration, NOAA, and their severe storms laboratory, the United States experienced more than 1,300 tornadoes last year, which resulted in the tragic deaths of over 100 people.

The dangers of tornadoes really hit home for me when earlier this year a tornado tore through the homes and businesses in Ocala, Florida in my district. Now, at the time, the National Weather Service radar in Jacksonville was unfortunately down for maintenance, meaning that residents were given no notice or warning of the incoming storm. This is absolutely unacceptable. In response, my team and I have been working hard on behalf of my constituents to ensure that this never happens again.

While today's hearing is about the broader topic of resilience, I am going to focus my comments on how our communities can improve their resilience when it comes to natural disasters. Specifically, I would like to talk about two incredibly important topics, pre-disaster mitigation activities and our Nation's building codes.

Pre-disaster mitigation activities can include efforts conducted by State and local communities, like upgrading existing infrastructure to protect from all hazards, elevating existing structures in identified flood zones, or investing in public awareness programs. These mitigation efforts can also take place at an individual level when people install hurricane shutters, purchase flood insurance, or clear dead vegetation from their property to reduce the risk of wildfire. Regardless of whether mitigation efforts are undertaken at the Federal, State, local, or individual level, these efforts can help ensure that no geographic region of the country is left unsupported.

In addition to pre-disaster mitigation efforts, our communities can also build resilience by improving our Nation's existing building codes. I am incredibly fortunate to represent the University of Florida, which is home to an excellent engineering program which has professors whose research focuses on sustainable infrastructure and the environment. One such professor is Dr. Prevatt, who has dedicated his career to learning how to make buildings more resilient. While unfortunately he is unable to attend our hearing today, I would like to take this opportunity to insert his testimony into the record.

Chairwoman DEMINGS. Without objection.

STATEMENT OF DR. DAVID O. PREVATT, F.SEI, F.ASCE, PROFESSOR OF CIVIL AND COASTAL ENGINEERING, ENGINEERING SCHOOL OF SUSTAINABLE INFRASTRUCTURE & ENVIRONMENT, UNIVERSITY OF FLORIDA

MAY 17, 2022

Chairwoman Val Demings, Ranking Member Kat Cammack, and honorable Members of the subcommittee, thank you for the opportunity to provide written testimony on how we can create a more resilient Nation with our preparations, response to, and recovery from wind-related disasters.

My name is David O. Prevatt and I am a professional engineer registered in Massachusetts and in Florida and a professor of civil and coastal engineering in the School of Sustainable Infrastructure & Environment at the University of Florida. I have devoted over 30 years to experimental research and field investigations of wind hazards to improve the performance of buildings subjected to high wind events and how we can build and retrofit structures to make them tornado- and hurricane-resilient. I previously testified before the U.S. Congressional committee on the topic of

reducing the impact of windstorms in 2013, and those observations are still relevant today.

Tornadoes have caused deaths and destruction this spring in numerous States, from Minneapolis to South Dakota and Kansas—and hurricane season is just beginning. Last year after the deadly and destructive Kentucky tornadoes, I wrote in the *Washington Post* about reports published 50 and 125 years ago by civil engineers that gave us guidance on how to build and mitigate future tornado damage and loss. My remarks submitted today draw on that commentary.

The engineering reports I referenced followed the Lubbock, Tex., tornado that killed 26 in 1970 and the St. Louis, Mo., tornado that killed 255 in 1896. Both tornadoes additionally destroyed thousands of buildings and other infrastructure, leaving communities facing hard choices of how to rebuild and go on. The reports detailed how tornadoes cause catastrophic damage to buildings and they recommended changes to construction practices to avoid or substantially reduce those losses. More important, the reports recommended concrete steps our communities can take to design tornado-resilient structures. Steps included raising the design wind speed (design loads) and incorporating engineered design criteria, such as incorporating a continuous vertical load path when building houses—a method that is proven to enhance their resistance to strong wind loads.

Regrettably, we ignored the recommendations, especially those identified after the Lubbock tornado, and thus by omission our society continues to build the disaster of the future one building at a time. Today nearly 50 percent of our residential inventory were constructed in the past 50 years with no regard for tornado impacts.

Had we chosen to follow the recommendations made after these tornadoes or after subsequent recommendations made following the 27 deadly EF5/F5 tornadoes that have occurred since Lubbock, the wide-spread suffering and loss we continue to witness today would have been largely avoidable. As an engineer and a researcher, I am heartbroken because we have known what we needed to do for decades.

I am part of a network of devoted structural engineering researchers who study major wind events and how to construct buildings that will stand in the face of natural hazards; this group is known as the Structural Extreme Events Reconnaissance Network (STEER). Our work is funded by the National Science Foundation and over the past 4 years, our members have deployed to more than 40 natural hazard events and made our resulting reports and data publicly available.

After the December 2021 Kentucky tornadoes, I pored over the STEER reports and read details that are all too familiar. They described a place that looks like what I'd expect to find at a bomb site: Trees broken midway at the trunks, some twisted around, leaves stripped. Houses and buildings that were near the tornado's centerline with roofs gone, gable walls fallen outward, garage doors blown in. Most of the furnishings are strewn across yards, and what remains inside homes is soaked. There's an unnatural quiet, save for the chain saws at work.

For me, the most painful details in such reports are the telling structural elements that allowed the wind to cause such havoc. Toe-nailed connections between roof trusses and walls that usually fail at pitifully low wind speeds. Cut nails pounded through wood 2x4 wall plates into concrete slabs that were almost always rusted through at the top of the slab—evidence that these connections failed years earlier and would provide no effective holding-down strength to the houses in the path of a tornado. The elements that resulted in complete structural failures could have been easily and inexpensively strengthened during construction.

It is painful because the primary aim of our research is to prevent devastation by building tornado-resilient homes and structures that can protect people and withstand most tornadoes. In 1897, following the St. Louis tornado, engineer Julius Baier observed that the degree of structural capacity needed to resist tornadoes would be “neither difficult nor extravagant.”

In fact, Baier's recommendations bear directly upon this current discussion, and I quote:

“In view of these facts [in Baier's 1897 paper] it appears to the author [Baier] rational to assume:

“First. That the safety and interests of the community and of the owner of the building require a recognition of a wind pressure of at least 30 lbs. per square foot against the exposed surface of the building, with an additional local provision of 50 lbs. for several stories near the top; and that this amount should be safely taken care of by some positive and definite provision in the construction of the frame.

“Second. That the vast interests at stake, the amount of capital invested and the comparatively small additional expense necessary would suggest to the owner the desirability of increasing the provision to 40 lbs. per square foot.

“Third. That the other uncertain elements of safety due to the ultimate strength of the material, the inertia of the mass, and the bracing effect of walls and partitions, should be recognized only as providing against the uncertain and possible higher pressure of the wind which may occur.”

Despite its 19th century English, Baier’s engineering guidelines are clear and supported by his research. I contend few practicing structural engineers today will find any of Baier’s recommendations to be unreasonable, given our present advanced knowledge of tornadoes and what is at stake. In other words, Baier’s words are still true, 125 years later.

We experience more than 1,200 tornadoes every year in the United States, and these wind events kill more people annually than hurricanes and earthquakes combined.

From 1950 through 2011, the average deaths per year in tornadoes was 91.6; 50.8 died in hurricanes and 7.5 died in earthquakes. These deaths almost always happen inside buildings.

No one believes all tornado damage can be avoided. But most tornadoes—more than 95 percent—have ground-level wind speeds of 135 miles per hour or less. Researchers from Texas Tech University who conducted the post-tornado surveys in Lubbock stated that while best estimates suggested maximum wind speeds at ground level were 200 miles per hour, most of the damage was caused by winds in the range of 75 to 125 miles per hour.

WHAT WE CAN DO: SOLUTIONS

With better building construction, we can narrow the width of the most catastrophic destruction—the distance away from the tornado’s centerline—so that homes, while possibly experiencing damage, remain occupiable immediately after a tornado. Dr. Anne Cope, chief engineer with the Institute of Business and Home Safety, recently concluded that with concerted action we can “narrow the path of tornado damage” cutting through our communities.

For a house to withstand wind loads, which pull up against the building’s structure and away from the ground against gravity, they must have strong, continuous lines of mechanical connections that tie every component, from the roof through the walls, down to the foundation.

The structural elements known to be needed include hurricane ties that attach roof trusses to the walls, steel anchor bolts set into concrete foundations to secure wall framing to the ground, and a system of shear walls and bracing to prevent buildings from being pushed over by strong winds. The engineering knowledge exists to incorporate these components today.

But traditional single-family homes, most of which are built to our minimum building code provisions, may lack these features, leaving them highly vulnerable to being torn apart. Even today, houses, schools, and businesses throughout the Midwest are designed to withstand winds only at the bottom of the tornado-rating scale.

The Lubbock tornado did lead to advancements over the past 50 years, including the development and application of the Fujita scale, updated in 2007, to measure storm strength and it accelerated advances in weather forecasting, such as expanded use of the Doppler radar network. Since 2011, the loss of life in Tuscaloosa, AL, and Joplin, MO, has also spurred further engineering research.

Considerable research on tornadoes has, in the aggregate, reduced the loss of life. But the Texas Tech team’s recommendations to improve building performance were never widely shared with the public, nor implemented by policy makers. The *New York Times* recently reported on ways the building industry has opposed stricter building guidelines over the years. And so, we have continued to build millions of homes similarly to what we have done since the post-World War II housing boom of the 1950’s, resulting in homes that are unable to withstand the wind forces of moderately strong tornadoes.

The engineering research community continues to advocate for design standards that will protect lives and lessen damage and destruction from tornadoes, including hardened structural frames, and providing storm shelters in our homes, schools, and businesses.

Over the past decade, the American Society of Civil Engineers (ASCE), the Federal Alliance for Safe Homes (FLASH), the Insurance Institute for Business and Home Safety, and the National Storm Shelter Association have worked to broadly share research about what we can do better—significantly, providing expert testimony to another Congressional panel on windstorm damage mitigation efforts. The most recent advancement is the publication of tornado design procedures included in the ASCE 7–22 design load guide.

Keith Porter, chief engineer at the Western University Institute for Catastrophic Loss Reduction in Toronto, Canada, calculates the cost of not doing all we can to build or retrofit structures, so they are capable of withstanding these ever-more intense storms:

“Those [US disaster] losses grow 6 percent annually, 10 times faster than the population, like a credit card bill when you always buy more than you repay every month. [We] need to design buildings that will shrink [our] disaster credit card balance.”—Keith Porter

Now, as the recovery and rebuilding effort continues in Kentucky and gets under way in other States affected by the recent tornadoes, it is time to draw on these resources and this knowledge.

The public also has a role in demanding adoption of updated standards and the retrofitting of buildings. Individual homeowners can research how to strengthen their homes along the lines of what was done in Fairhope, AL, where fortified homes experienced little to no damage in Hurricane Sally, a Category 2 storm that struck the Gulf Coast of Alabama in 2020.

CONCLUSION

Resilience to wind hazards, tornadoes, and hurricanes is about protecting people vulnerable to windstorm impacts so they don’t suffer catastrophic loss of lives and property. Resilience is about communities and leaders acting today and into the future to adopt appropriate building standards and known technologies that are available to protect our lives, reduce residential building damage, and create tornado-resilient communities.

This concludes my written statement. I would be happy to answer any questions you have[.]

Mrs. CAMMACK. Thank you, Chairwoman Demings. Dr. Prevatt’s extensive research, which has included conducting damage assessments after a tornado devastated parts of western Kentucky last year, has shown that the most catastrophic destruction can be minimized when using better building construction. In addition to saving lives, improved building design can also make smart financial sense.

A December 2019 report by the National Institute of Building Sciences found that designing buildings to meet the 2018 building code standards, the National Mitigation Benefit Cost Ratio is \$11 for every \$1 invested.

Now, before I yield back I would be remiss if on the heels of National Police Week I didn’t briefly touch on the critical role that our police and first responders play in communities across America, particularly after these devastating storms. In our increasingly uncertain world, first responders are being called upon to go above and beyond the call of duty every single day. That is why it is so important to ensure that our first responders have the resources and training they need to protect and serve our communities.

FEMA’s preparedness grants, including but not limited to the UASI and the State Homeland Security Grant Program, the Port Security Grant Program, and the Transit Security Grant Program help our first responders do just that. As the Ranking Member of this subcommittee, I am proud to support these grant programs, as well as other efforts to strengthen our Nation’s overall emergency preparedness.

I would like to thank our witnesses for participating in the hearing today and I look forward to hearing your thoughts on how we can work together to build a more resilient Nation.

With that, I yield back.

[The statement of Ranking Member Cammack follows:]

STATEMENT OF RANKING MEMBER KAT CAMMACK

MAY 17, 2022

Thank you, Chairwoman Demings for holding this important hearing today. I'm looking forward to discussing the ways in which we can work together to build a more resilient Nation.

June 1 marks the beginning of the 2022 Atlantic Hurricane Season. With this date fast approaching, it's important to remember that while we can't control the weather, we can take steps to prepare.

As Floridians, we're all too familiar with the destructive power of hurricanes. But what many people don't realize is that Florida is also highly prone to tornadoes, ranking third behind Texas and Kansas with the average number of tornadoes per year.

According to the National Oceanic and Atmospheric Administration's National Severe Storms Laboratory, the United States experienced more than 1,300 tornadoes last year, which resulted in the tragic deaths of over 100 people.

The dangers of tornadoes really hit home for me when earlier this year, a tornado tore through homes and businesses in my district.

At the time, the National Weather Service radar in Jacksonville was down for maintenance, meaning that residents were given no notice or warning of the incoming storm.

This is absolutely unacceptable.

In response, my team and I have been working hard on behalf of my constituents to ensure that this never happens again.

While today's hearing is about the broader topic of resilience, I'm going to focus my comments on how our communities can improve their resilience when it comes to natural disasters.

Specifically, I'd like to talk about two incredibly important topics: Pre-disaster mitigation activities and our Nation's building codes.

Pre-disaster mitigation activities can include efforts conducted by State and local communities like upgrading existing infrastructure to protect from all-hazards, elevating existing structures in identified flood zones, or investing in public awareness programs.

And these mitigation efforts can also take place at an individual level when people install hurricane shutters, purchase flood insurance, or clear dead vegetation from their property to reduce the risk of wildfire.

Regardless of whether mitigation efforts are undertaken at the Federal, State, local, or individual level, these efforts can help ensure that no geographic region of the country is left unsupported.

In addition to pre-disaster mitigation efforts, our communities can also build resilience by improving our Nation's existing building codes.

I am incredibly fortunate to represent the University of Florida, which is home to an excellent engineering program which has professors whose research focuses on sustainable infrastructure and the environment.

One such professor is Dr. Prevatt who has dedicated his career to learning how to make buildings more resilient. While unfortunately Dr. Prevatt was unable to attend our hearing today, I would like to take this opportunity to insert his testimony into the record.

Dr. Prevatt's extensive research, which has included conducting damage assessments after a tornado devastated parts of western Kentucky last year, has shown that the most catastrophic destruction can be minimized by using better building construction.

In addition to saving lives, improved building design also makes smart financial sense. A December 2019 report by the National Institute of Building Sciences found that by designing buildings to meet 2018 building code standards, the National mitigation benefit-cost ratio is \$11 for every \$1 invested.

Before I yield back, I would be remiss if, on the heels of National Police Week, I didn't briefly touch on the critical role that our police forces and first responders play in communities across America. In our increasingly uncertain world, first responders are being called upon to go above and beyond the call of duty every single day.

That's why it is so important to ensure that our first responders have the resources and training they need to protect our communities. FEMA's preparedness grants, including, but not limited to the Urban Area Security Initiative (UASI), the State Homeland Security Grant Program, the Port Security Grant Program, and the Transit Security Grant Program help our first responders do just that.

As the Ranking Member of this subcommittee, I am proud to support these grant programs, as well as all other efforts to strengthen our Nation's overall emergency preparedness.

I'd like to thank all of our witness for participating in this hearing today and I look forward to hearing your thoughts on how we can work together to build a more resilient Nation.

With that, I yield back.

Chairwoman DEMINGS. I thank the Ranking Member for her statement.

Members are reminded that the committee will operate according to the guidelines laid out by the Chairman and Ranking Member in their February 3, 2021 colloquy regarding remote procedures.

Without objection, Members not on the subcommittee shall be permitted to sit and question the witnesses. Statements may also be submitted for the record.

[The statement of Chairman Thompson follows:]

STATEMENT OF CHAIRMAN BENNIE G. THOMPSON

MAY 17, 2022

Good morning.

Before I begin, I would like to take a moment to reflect on the devastating violence across our Nation this weekend. My condolences go out to the families of the victims in Buffalo, New York and Laguna Woods, California.

These heinous acts of violence and domestic terrorism demonstrate the challenges we face as a Nation.

I would like to thank Chairwoman Demings for holding today's hearing on resilience.

Resilience means being ready and able to withstand a crisis and deliver a quick and successful response and recovery to an emergency.

Resilience means that preparation and adaptation are not an afterthought. They are critical parts of the process.

By planning for the worst and building resilience into our systems from the very beginning, we can mitigate damage and suffering.

Today, we are 2 weeks away from the start of hurricane season.

Experts are predicting another record year, and if they are correct there could be 19 named storms.

Over the last year alone, people across the Nation have experienced the impact of climate change in deadly heat waves, dangerous wildfires, and storms, including tornadoes in Kentucky and wide-spread destruction from Hurricane Ida, which impacted States from the Gulf Coast to New England.

Unfortunately, these problems are here to stay.

The threats before us are grave, and natural disasters are not the only challenge.

The rise in homeland threats like domestic terrorism and cyber attacks place an added burden on our first responders, local governments, and community partners.

Emergency response systems are incredibly important to the outcome of a crisis, and yet they are already under strain.

The Urban Areas Security Initiative (UASI) helps ensure that local law enforcement and first responders have the training and equipment they need to protect against terrorist threats.

I support full and robust funding for the UASI program and other DHS grants that ensure first responders have resources to keep our communities safe.

Another key pillar of a resilient Nation is ensuring that everyone, not just those with means, is considered included in the disaster response, especially those who need it most.

It is wrong to leave people behind. Sadly, that is what our current disaster assistance system does. Often those with wealth and power can navigate the Federal Emergency Management Agency's disaster assistance system, while low-income and people of color are left behind.

With Chairwoman Demings and Senator Elizabeth Warren's support, I introduced the "FEMA Equity Act" to ensure that no one gets left behind by FEMA assistance because of their race or income.

I look forward to hearing from the witnesses about how integrating equity into our conversation is a critical part of resilience.

To cope with the challenges of tomorrow, we must act strategically to build resilience at all levels of government, from small-town leadership to our Federal climate goals.

I look forward to the witnesses' testimony as we work toward building a more resilient Nation.

Chairwoman DEMINGS. I now welcome our panel of witnesses.

Our first witness is Orlando Chief of Police Orlando Rolón, appearing on behalf of the Major Cities Chiefs Association. Chief Rolón started with the Orlando Police Department in 1992. Having previously served with them, I have witnessed his extraordinary and outstanding commitment to public service. Chief, I want to commend you on a distinguished career and congratulate you on your announcement of your retirement of last week. Thank you so much for your service to our community. I know that the best is still yet to come. Thank you so much for being here with us today.

Our second witness is Commissioner George Dunlap. The commissioner serves as chairman of the board of Mecklenburg County Commission. He has been a member of the Commission for over 10 years and a proud law enforcement veteran for almost 30 years. Thank you for your service.

He was previously a member of the board of directors for the National Association of County Officials and will be representing them today.

Our third witness is Chris Currie, the director of GAO's Homeland Security and Justice Team. Mr. Currie leads GAO's work on emergency management, disaster response, and recovery and the Department of Homeland Security management and high-risk issues. Mr. Currie began his tenure with GAO in 2002.

Without objection, the witnesses' full statements will be inserted in the record.

I now ask each witness to summarize their statement for 5 minutes, beginning with Chief Rolón.

STATEMENT OF ORLANDO ROLÓN, CHIEF OF POLICE, CITY OF ORLANDO

Chief ROLÓN. Chairwoman Demings, Ranking Member Cammack, and distinguished Members of the subcommittee, thank you for the opportunity to participate in today's hearing. It is an honor to testify before you for the second time this Congress.

Chairwoman DEMINGS. Chief, excuse me, is your microphone on—

Chief ROLÓN. Yes, ma'am.

Chairwoman DEMINGS. OK. All right. Just—thank you.

Chief ROLÓN. You are welcome.

FEMA grants play a critical role in building resilient communities. For these grants to be as effective as possible, there must be robust stakeholder engagement. While FEMA has prioritized local enforcement engagement since I last testified on critical issues like grant carve-outs and changes to the risk formula, engagement is still limited. FEMA would benefit from instituting a more formal process for soliciting local law enforcement input.

Each year UASI and State and Homeland Security grant program recipients must dedicate a certain portion of their funding to National priority areas and law enforcement terrorism prevention activities, or LETPA. While National priority areas can help ensure

limited grant funding is used to address the most significant threats, they must develop a consultation with key stakeholders to ensure they do not inadvertently jeopardize funding for core capabilities.

Loopholes in LETPA may also impact the amount of grant funding available for law enforcement. While the MCAA is pleased to see FEMA raised the LETPA requirements to 30 percent for fiscal year 2022, Congress must do more to strengthen LETPA and ensure those funds end up in the hands of local law enforcement.

UASI and State Homeland Security grant recipients often engage in year's-long planning where predictability is key. The need for additional transparency in how allocations are determined is much needed. While grantees are allowed to review and comment on their risk profiles, they cannot see the specific data used to calculate their risk. Considering these challenges, FEMA should let personnel from each jurisdiction, with the appropriate clearances, see the specific data used to formulate a risk profile.

FEMA must also ensure the risk methodology captures all relevant factors. The city of Orlando is a top tourist destination, which represents a unique set of challenges when it comes to assessing risk. This year FEMA added a new data element to account for areas of visitor to resident ratios. It is great to see FEMA continue to tweak the formula to ensure it adequately captures the risk to tourist destinations.

Effective public safety communications play an essential role in building resilient communities. Unfortunately, several events over the past few years made it abundantly clear that there is still work to do to harden these systems.

Outdated technology and infrastructure, as well as wireless carriers, outages, can test resiliency for public safety communication systems. These challenges impact both members of the public, calling for assistance, and law enforcement officers responding to these emergencies.

Cybersecurity is another threat that must be addressed. As law enforcement relies more and more on technology systems to carry out its mission, cyber attacks can have catastrophic effects.

Upgrading current 9-1-1 structures to updated next generation 9-1-1 systems will be critical to further enhancing resiliency. Next generation 9-1-1 has countless benefits, but overall this upgrade will enable faster and more efficient emergency responses, as well as making first responders in the community they serve safer. Recent estimates place cost of Nation-wide next generation 9-1-1 at \$15 billion. While funding 9-1-1 operation is traditionally a State and local burden or function, next generation 9-1-1 will require Federal investment to help avoid duplicating many of the challenges with current 9-1-1 systems, such as a lack of interoperability for those systems. While Congress has many priorities, it must provide resources for next generation 9-1-1 because these systems are critical infrastructure in every community.

Local law enforcement agencies have continued to work tirelessly to better merge their public safety and disaster response and preparedness responsibilities. In Orlando, we work hand-in-hand with the city's office of emergency management. Many agencies also offer specialized training and have specialized units within emer-

agency response and preparedness responsibilities. Local and Federal partnerships are also critical as they help bring additional resources and expertise to any disaster response. Local and Federal officials' first interaction shouldn't be during a crisis and therefore Congress must continue to ensure Federal agencies engage with their local counterparts and ensure critical grant programs, like the ones discussed today, are fully funded.

I will actually close by thanking the subcommittee for its continued focus on ensuring local law enforcement has the resources and tools it needs to prepare for to respond to disasters. This support is critical, especially as the threat picture becomes more complex.

I look forward to any questions the committee may have.

Thank you.

[The prepared statement of Chief Rolón follows:]

PREPARED STATEMENT OF ORLANDO ROLÓN

MAY 17, 2022

INTRODUCTION

Chairwoman Demings . . . Ranking Member Cammack . . . and distinguished Members of the subcommittee: Thank you for the opportunity to participate in today's hearing. I appear before you today as the chief of police in Orlando, Florida. It is also my privilege to testify on behalf of the Major Cities Chiefs Association (MCCA), a professional organization of law enforcement executives representing the largest cities in the United States and Canada. I currently serve as a member of the MCCA's Executive Board. It's an honor to testify before the subcommittee for the second time this Congress.

I'd like to begin by noting the subcommittee's continued focus on issues impacting local law enforcement. The importance of your commitment to ensuring law enforcement has the resources and tools it needs to prepare for and respond to both natural and manmade disasters cannot be understated, especially as the threats facing the homeland become more complex.

The focus of today's hearing is building resilient communities. My testimony will provide a local law enforcement perspective on FEMA preparedness grants and public safety communications, two integral elements for building resilience. I'll also discuss the role of local law enforcement in disaster response and how stakeholders from multiple levels of government can work together to increase resiliency Nationwide.

FEMA PREPAREDNESS GRANTS

The resources FEMA grants provide play a critical role in building resilient communities. More specifically, these grant programs bolster law enforcement's ability to prevent and respond to a variety of public safety threats, including both terrorist attacks and natural disasters. The Homeland Security Grant Program (HSGP), which includes the Urban Area Security Initiative (UASI) and State Homeland Security Grant Program (SHSP), and the Emergency Management Performance Grant (EMPG) are particularly valuable for local law enforcement. However, FEMA can make a few changes to improve the efficacy of these preparedness grant programs.

Stakeholder Engagement

While FEMA is an essential partner for local law enforcement in building resilience, there is room for improvement with respect to stakeholder engagement. Providing local law enforcement and other key stakeholders with the opportunity to ensure their voices are reflected in the policy making process will help ensure transparency in grant directives and guidance. Working with stakeholders ahead of time will also help mitigate situations where a FEMA policy change forces grantees to make last-minute pivots in their planning processes, which can inhibit their ability to allocate resources efficiently.

Since I last testified on this topic, Secretary Mayorkas and FEMA leadership have made stakeholder engagement a priority. For example, FEMA and the Office of State and Local Law Enforcement recently held a call to solicit feedback on grant programs and processes with the MCCA and other law enforcement associations.

FEMA also held another call to brief stakeholders on the recently released Notice of Funding Opportunity for fiscal year 2022 grants.

Despite these improvements, engagement with the MCCA and local law enforcement on some of the most critical topics, such as National Priority Areas and changes to FEMA's risk formula, is still haphazard and limited. This is concerning, given that nearly every UASI jurisdiction is an MCCA member. The MCCA understands that the delayed fiscal year 2022 appropriations cycle required FEMA to develop the fiscal year 2022 grant guidance on an abbreviated schedule, which may have limited the opportunities for robust stakeholder engagement. Nevertheless, FEMA would benefit from instituting a more formal process for soliciting local law enforcement input on preparedness grants, as stakeholder engagement challenges have persisted for years.

National Priority Areas and LETPA

To receive their full allocation of FEMA preparedness grant funds, grantees must dedicate a certain percentage of funds to projects that meet the criteria outlined in the statute or the grant program's Notice of Funding Opportunity. The two most prominent carveouts for UASI and SHSP are the National Priority Areas and the Law Enforcement Terrorism Prevention Activities (LETPA).

National Priority Areas are a relatively new concept. FEMA first began requiring grantees to use a portion of their UASI and SHSP funds to address National Priority Areas in fiscal year 2020. There certainly is value in establishing National Priority Areas as it helps ensure that limited grant funding is used to help address the most significant threats facing the country. However, FEMA must develop these priorities in consultation with key stakeholders to ensure they reflect the needs of grantees and do not inadvertently jeopardize funding for core capabilities and competencies. Grantees were required to spend 30 percent of their total funds on National Priority Areas projects last year. As a result, the amount of discretionary funding for local law enforcement in some jurisdictions for projects that did not meet these criteria was limited. While grantees still must dedicate 30 percent of their award to National Priority Area projects in fiscal year 2022, FEMA has provided some additional flexibility that may help mitigate this issue.

LETPA was originally a stand-alone grant program designed to help bolster law enforcement's capabilities to prevent and respond to terrorist attacks. Unfortunately, this program was weakened over the years, and it no longer receives its own appropriation. Instead, HSGP grantees must now dedicate at least 25 percent of their award to LETPA. The change from a grant program to a grant carveout impacted the amount of funding available for local law enforcement. For example, the LETPA requirement can be met using either UASI or SHSP funds, and National Priority Area projects also count toward the LETPA requirement. Therefore, grantees can meet the LETPA requirement while only providing a limited amount of LETPA-designated funding directly to local law enforcement.

Despite these challenges, LETPA still provides significant value. For example, one MCCA member uses this specific carveout to help fund its fusion center and Chemical Biological Radiological Nuclear Explosive (CBRNE) teams. FEMA's fiscal year 2022 Notice of Funding Opportunity recognizes the importance of LETPA, raising the carveout to 30 percent, a 5 percent increase over the minimum amount required by statute. While this is a welcome first step, Congress should take additional action to strengthen LETPA. Ideally, Congress would restore LETPA to a stand-alone, independently-funded grant program. If it is unwilling to do so, it should, at a minimum, close the loopholes described above, which must include requiring grantees to pass through a portion of LETPA-dedicated funding to local law enforcement.

Risk Methodology Predictability

It is not uncommon for projects funded by FEMA preparedness grants to be multi-year efforts. As a result, grantees often engage in years-long planning processes and for these efforts to succeed, there must be predictability and integrity in the risk calculation and funding allocation process FEMA uses each year.

There is a need to inject additional transparency into the risk validation process that is used to determine funding allocations for UASI and SHSP. While States, territories, and UASI-eligible Metropolitan Statistical Areas (MSA) can review and comment on their risk profiles, there is a lack of detailed information. For example, while the risk profile explains how each element of the profile is calculated and notes the sources used, grantees cannot see the specific data utilized. Therefore, it is challenging to provide substantive feedback, confirm the calculations are accurate, or raise other concerns. For example, after a historical data call, one MCCA member learned that several of their critical infrastructure assets had been omitted, resulting in the MSA's risk being miscalculated.

To address these challenges, FEMA should let personnel from each jurisdiction, with the appropriate clearances, see the specific data used to formulate the risk profile. This will help increase transparency, improve FEMA and stakeholder engagement, provide another opportunity for State and local threat information to be incorporated, and ensure the risk to communities is being calculated accurately. No one knows the security needs of the community better than local law enforcement.

Orlando and several other MCCA members that receive UASI grants are unique in that the number of annual visitors is significantly greater than the local population. The sheer number of tourists in these jurisdictions, coupled with the fact that many of them are visiting soft targets—such as Orlando’s many theme parks—represents a substantial risk that should be accounted for in FEMA’s risk methodology. Until recently, tourism-related metrics, such as special events and daily visitors, were not included. Once these factors were incorporated, several prominent tourist destinations rightly saw significant increases in their UASI funding allocations. FEMA added a new data element to its fiscal year 2022 risk methodology to account for MSAs’ visitor-to-resident ratio. It’s great to see that FEMA continues to review and update its risk formula as necessary to ensure it appropriately weights the unique needs of tourist destinations.

Finally, once a UASI or SHSP project is approved, FEMA must disburse the necessary resources expeditiously. Several MCCA members have expressed concern about navigating FEMA’s bureaucracy. Things become even more complicated when grantees are trying to fund a project that requires additional levels of approval from FEMA, such as acquiring controlled equipment, or repurpose their grant funds after a disaster occurs in their jurisdiction. The failure to disburse funds promptly is detrimental to homeland security as it inhibits recipients from mitigating risks as efficiently as possible. Furthermore, it can also cause challenges as grantees work to coordinate project delivery with other stakeholders.

As mentioned earlier, many FEMA grant-funded projects are multi-year efforts. If a grantee were to experience a substantial decrease in funding or lose their UASI-eligibility, it could put vital capabilities at risk and undermine resiliency. Given some of the unpredictability in FEMA’s current risk methodology, Congress has taken action to mitigate the impact on jurisdictions that lose UASI funding. Last fall, Chairwoman Demings introduced H.R. 5615, the Homeland Security Capabilities Preservation Act, which requires FEMA to develop a plan to make funding available to jurisdictions that lose UASI eligibility and need assistance to preserve UASI-funded capabilities. These additional resources will provide these jurisdictions with additional time to transition these capabilities to alternative funding streams. This bill passed the House in March, and the MCCA strongly encourages the Senate to pass it as soon as possible.

Emergency Management Performance Grant

The continued effectiveness of FEMA’s Emergency Management Performance Grant (EMPG) will be critical as communities continue to build resilience. EMPG supports State and local emergency management agencies and programs, and this funding remains the backbone of many local emergency management programs. The funding allocations for EMPG are based primarily on population. In fiscal year 2021, Florida received roughly \$16.5 million. In addition, Florida received an additional \$4.7 million in EMPG funding through the American Rescue Plan.

EMPG includes a 50 percent local match requirement, which helps create a shared responsibility for preparedness among local, State, and Federal agencies. Although not perfect, EMPG provides enough flexibility so State and local programs can effectively utilize it to address a range of emergency management priorities. For example, here in Florida, EMPG funding supports personnel, equipment, planning, training, and exercise activities across the State. Congress and FEMA must maintain this flexibility regarding the eligible uses of funds. Furthermore, Congress should consider increasing the appropriation for EMPG to reflect the ever-increasing responsibilities of agencies involved in emergency management.

PUBLIC SAFETY COMMUNICATIONS

Effective public safety communications play an essential role in building resilient communities. They are critical in coordinating and executing the public safety response to a wide variety of threats. While public safety communications have steadily improved over the years, several issues still need to be addressed as expeditiously as possible.

Resiliency

Emergency communications, such as 9–1–1 calls, are one of the primary methods through which members of the public let police, firefighters, EMS, and other first

responders know they need help. As such, the systems used to receive and manage these communications must be resilient and able to withstand all manner of threats, whether they be natural or man-made. Unfortunately, several events over the past few years made it abundantly clear that there is still work to do to harden and make communications systems as resilient as possible.

In June 2022, cell carrier outages impacted 9-1-1 services here in Orlando. Similar situations have affected other communities throughout the country with disturbing regularity. The dangers of these outages are clear. An individual in an emergency may not know an alternative number to dial or be able to find one until it's too late. It also complicates law enforcement's response, as agencies need to identify and triage emergencies from other calls that also utilize non-emergency lines.

Outdated technology is another issue that must be addressed when it comes to building resilience. The situation in New Orleans following Hurricane Ida is one example that highlights this challenge. It was widely reported that the 9-1-1 center in New Orleans was off-line for approximately 13 hours following the hurricane. This outage, which was attributed to outdated technology, was particularly devastating considering the sheer number of people who needed assistance during this time. Many communities across the United States still rely on landline technology to deliver 9-1-1 calls, which can be especially susceptible to some of the consequences of natural disasters. The move to Next Generation 9-1-1 (NG 9-1-1), which is discussed in greater detail later in this testimony, would help alleviate this issue. These systems deliver requests for assistance via IP-based technology, making it easier to reroute calls to another 9-1-1 center if the initial 9-1-1 center experiences an outage.

Cyber attacks are another threat that can test the resiliency of public safety communications systems. Over the past decade, public safety agencies, including many MCCA members, have experienced increased ransomware, denial of service, and other cyber attacks. As law enforcement and other public safety agencies rely more and more on technology systems to carry out their missions, these attacks can have catastrophic effects. Agencies can be especially vulnerable if their technology systems are outdated or their personnel are not adequately trained to mitigate cyber threats. These challenges can be exacerbated by public safety agencies' connections with more extensive municipal networks, which may be less secure and provide an alternative vector for attacks.

Public safety must continue to work tirelessly to mitigate cyber threats. One of the best defenses is to ensure that agency personnel are well-educated and -trained on good "cyber hygiene." Congress can also take a few steps to help local governments defend themselves against cyber attacks. First, Congress must ensure the grant programs that help build local cyber capacity, such as the Homeland Security Grant Program, are fully funded. Congress should also continue to provide agencies such as DHS's Cybersecurity and Infrastructure Security Agency (CISA) with the authorities and resources needed to continue programs and efforts designed to help local government agencies prevent and respond to cyber attacks.

Next Generation 9-1-1

9-1-1 systems are critical infrastructure in every community. From a young age, it is ingrained in us to dial those numbers if we ever find ourselves in an emergency. Millions of Americans every year depend on these systems to dispatch help in their time of need. Most people are surprised to learn that 9-1-1 systems throughout the country are often underfunded and technologically inadequate. Many 9-1-1 systems throughout the country rely on decades-old landline technology—things like copper wires and conventional switches. One could reasonably argue that the smartphones we all carry in our pockets are more advanced and have more capabilities than some of the 9-1-1 systems public safety agencies currently operate.

Upgrading current 9-1-1 systems to next-generation ones will be critical to further enhancing resiliency. This upgrade will enable faster and more efficient emergency responses, make first responders and the communities they serve safer, and allow law enforcement and public safety professionals to better meet the needs and expectations of the tech-enabled, 21st Century American public. NG 9-1-1 will enable dispatch centers to receive a variety of multimedia and other rich data from callers and seamlessly share it with first responders in the field. The benefits of this capability are endless. For example, live videos of a crime scene could help law enforcement identify where a suspect is located more quickly. Photos from a burning building can assist firefighters with determining what rescue equipment is needed. Health information sent from a smartphone or smartwatch can assist EMS and hospitals with preparing treatments before a patient is in their care. Utilizing advanced

data is just one of NG 9-1-1's many benefits. Simply put, upgrading to NG 9-1-1 will save lives.

To help raise awareness and advocate for NG 9-1-1, approximately 2 years ago, the MCCA helped found the Public Safety Next Generation 9-1-1 Coalition. The Coalition consists of the leadership of many of America's major law enforcement, fire service, emergency medical services, labor unions, and public safety communications associations. The goal of the Coalition is to work with Congress and other key stakeholders to ensure the right policies are in place and secure the requisite resources to bring about a Nation-wide upgrade of existing 9-1-1 systems to next-generation systems. As part of its efforts, the Coalition established a set of first principles. These principles must be incorporated into any NG 9-1-1 upgrade to ensure public safety professionals and the communities we serve can realize the full benefits of this technology. The Coalition's first principles are:

- NG 9-1-1 should be technologically and competitively neutral and use commonly-accepted standards that do not lead to proprietary solutions that hamper interoperability, make mutual aid between agencies less effective, limit choices, or increase costs.
- Development of program requirements, grant guidance, application criteria, and rules regarding NG 9-1-1 grants should be guided by an advisory board of public safety practitioners and 9-1-1 professionals.
- NG 9-1-1 must be fully funded to ensure it is deployed throughout the country in an effective, innovative, and secure manner and to enable NG 9-1-1 implementation training Nation-wide.
- The process for allocating funds to localities should be efficient, Federal overhead costs should be minimized, and grant conditions should not be onerous or extraneous and should be targeted to achieve important objectives including interoperability and sustainability.
- Cybersecurity of NG 9-1-1 systems should be a primary consideration.
- Incentives for increased efficiency of NG 9-1-1 functions, including through shared technology and regional collaboration, should be included.

While all the Coalition's first principles are important, there will always be challenges with resiliency until interoperability issues are fully addressed. A lack of interoperability is one of the most significant flaws with current 9-1-1 systems, as 9-1-1 centers cannot quickly transfer calls to other centers. Instead, public safety communications professionals typically need to facilitate the transfer manually. As a result, the individual calling for help often needs to tell their story again to the dispatcher at the new center. Every second counts when responding to an emergency, and the delays created by a lack of interoperability can be the difference between life and death.

Roughly 80 percent of 9-1-1 calls are now made from cell phones. In many instances, the 9-1-1 center that receives the call is based on the location of the cell tower that processed the call. It should be noted that while wireless carriers and device manufacturers have developed and implemented features to route calls based on the device's actual location, it is not always possible to direct calls via this method. MCCA member agencies typically border multiple jurisdictions, which complicates the challenges related to interoperability. MCCA members can provide numerous examples of calls for service in their cities, especially near jurisdictional boundaries, being routed to 9-1-1 centers in neighboring areas. For example, one member located near the State line has indicated that emergency calls are sometimes routed to a 9-1-1 center in another State.

The upgrade from landline to IP-based technology, known as ESI-nets, is the backbone of an NG 9-1-1 upgrade. This is an important step, but is not enough on its own to solve interoperability issues. As 9-1-1 systems are upgraded to NG 9-1-1, these new systems must be technologically and competitively neutral. NG 9-1-1 systems also must use commonly-accepted standards and cannot rely on proprietary solutions. A failure to do so risks producing a situation that shares many of the challenges public safety agencies are currently experiencing with land mobile radios, where achieving interoperability requires developing and implementing expensive workarounds.

Traditionally, 9-1-1 operations are a State and local function. Unfortunately, this has created a situation of "haves and have nots," where 9-1-1 system capabilities vary dramatically between States and communities. Given the immense public safety value, we must ensure that all of America, from the largest cities to the most rural counties, can upgrade to NG 9-1-1 systems as soon as possible. It will be tough to execute this upgrade Nation-wide without investing Federal resources. The cost of this upgrade goes well beyond the infrastructure and technology NG 9-1-1 systems need to operate. There are also costs associated with other critical components, such as training dispatchers and other personnel on these new systems

and implementing vital cybersecurity measures to ensure the systems cannot be taken off-line by malicious actors.

Federal assistance for NG 9-1-1 systems must be sufficient enough to address all aspects of the upgrade. Otherwise, it may further cement the status quo of “haves and have nots.” It may also inhibit public safety from addressing all existing challenges with current 9-1-1 systems or fully capitalizing on the new capabilities NG 9-1-1 systems provide. Recent estimates put the cost of a Nation-wide NG 9-1-1 upgrade at approximately \$15 billion. While this is a large sum, especially in the current fiscal environment, Congress should strongly consider providing this funding given the benefits NG 9-1-1 systems offer.

FirstNet Reauthorization

No matter how much a community does to prepare, the reality is that there will always be emergencies. For a community to be resilient, the local public safety apparatus must be able to respond to these incidents quickly and effectively. As stated earlier, successful public safety responses require effective communications. To help address public safety communications challenges, in 2012, Congress passed legislation creating the First Responder Network Authority (FirstNet), which is responsible for providing a National broadband communications network that promotes interoperability between first responders. The MCCA was an original supporter of this legislation and has continued to support FirstNet’s efforts to strengthen the National network.

While the network is deployed via a public-private partnership, the FirstNet Authority is ultimately responsible for oversight and management. However, FirstNet’s authorization sunsets in 2027, and no other entity is currently identified in the statute to take over these responsibilities. If Congress fails to act before FirstNet’s authority lapses, it will place network operations and improvements at risk, and could result in public safety users losing access, according to a recent GAO report. This cannot be allowed to happen, especially as communities across the country contend with various public safety threats, including violent crime, extreme weather, and other emergencies.

Earlier this year, Chairwoman Demings and Representative Fletcher introduced H.R. 6768. This legislation would eliminate the sunset provision, thereby ensuring FirstNet’s authority will not lapse. More importantly, this permanent reauthorization will allow FirstNet to continue its work to enhance the communications technology and infrastructure first responders rely on, which in turn help communities Nation-wide build resiliency. The MCCA has endorsed H.R. 6768 and encourages Congress to advance it as soon as possible.

LOCAL LAW ENFORCEMENT’S ROLE IN DISASTER RESPONSE

Local law enforcement is on the front lines of responding to any emergency, whether it be a terrorist attack, natural disaster, or global pandemic. During these incidents, close collaboration between public safety partners at every level of government, the community, and other stakeholders is of paramount importance. Resilient communities rely on these relationships to prepare for, respond to, and recover from disasters as efficiently and effectively as possible.

Changing Roles

Historically, local law enforcement’s role in disaster response has focused on upholding public safety by protecting people and property. While that is still a primary focus, over the years, the disaster response-related responsibilities of many local law enforcement agencies have grown to adjust to the changing landscape and added risks. Disaster response has become a shared responsibility, and effective responses require multiple skill sets. First responders can no longer operate in silos and must work as one unit to ensure the safety of the community. As such, law enforcement now frequently assists with disaster response activities traditionally considered the purview of other public safety entities. These duties can range from search-and-rescue missions, to evacuating residents, to assisting with medical treatment and distributing supplies to displaced members of the community.

In recent years, local law enforcement agencies have continued to work tirelessly to better merge their public safety and disaster response and preparedness responsibilities. Law enforcement works closely with State and local emergency management offices and other stakeholders to develop, coordinate, and practice emergency response plans. Many agencies also provide or help facilitate specialized training, such as incident management training. Other departments, including many MCCA member agencies, have stood up homeland security, emergency services, and other specialized divisions. These units are often responsible for emergency and disaster preparedness and response.

Federal-Local Partnerships

Local jurisdictions often look to the Federal Government for assistance when disaster strikes. While MCCA members enjoy strong working relationships with their Federal partners, disaster response requires a whole-of-government approach, so other local government entities must also engage with their Federal counterparts. Establishing these relationships in advance provides numerous benefits. Local and Federal officials' first interaction shouldn't be during a crisis. Through its oversight efforts, Congress must continue to ensure Federal agencies engage with their local counterparts and that mechanisms for promoting this collaboration are adequately funded.

The Federal Government can also provide additional resources and expertise to aid local jurisdictions in preparing for and responding to disasters. FEMA preparedness grants are perhaps the most well-known example. There is no doubt that Congress must continue to ensure these programs are fully funded.

The 1033 Program is another example that demonstrates how the Federal Government can assist localities with disaster response. The 1033 Program, managed by the Defense Logistics Agency, allows the Department of Defense to transfer surplus equipment to local law enforcement agencies, thereby providing access to critical equipment that may otherwise be cost-prohibitive. Local law enforcement agencies have used this equipment to respond to a range of public safety threats, including natural disasters, terrorist attacks, active shooters, and other emergencies.

Due to a common misconception that the 1033 Program is used to militarize the police, there have been several recent attempts to eliminate or significantly restrict the program. The reality is that the 1033 Program provides a wide variety of equipment, including equipment with disaster response applications, such as emergency tents and generators. Even some of the more military-style equipment is frequently used for disaster response. For example, one MCCA member used an MRAP vehicle obtained via the 1033 Program to perform high-water rescues during a hurricane. Given some of the concerns that opponents of the 1033 Program have raised, the MCCA welcomes incorporating additional oversight and accountability measures. However, eliminating or significantly restricting the program would be detrimental to both public safety and community resiliency.

CONCLUSION

While there are many things outside of our control during a disaster or emergency, the one thing we can control is our level of preparedness. One of the best ways to prepare for future disasters is to build resilient communities. This will require an investment of resources, the deployment of new technology, and a few policy changes and pieces of legislation. No one entity can do everything on its own, so stakeholders at every level of government must continue to collaborate. The MCCA stands ready to continue to work closely with this subcommittee to advance our shared goal of building resilient communities.

Thank you again for the opportunity to participate in today's hearing. I look forward to answering any questions you may have.

Chairwoman DEMINGS. Thank you, chief, for your testimony.

I now recognize Commissioner Dunlap to summarize his statement for 5 minutes.

STATEMENT OF GEORGE DUNLAP, CHAIRMAN, BOARD OF COUNTY COMMISSIONERS, MECKLENBURG COUNTY, NORTH CAROLINA

Mr. DUNLAP. Chair Demings, Ranking Member Cammack, and distinguished Members of the subcommittee, thank you for having me here today.

My name is George Dunlap and I have the privilege of serving as chairman of the Board of County Commissioners in Mecklenburg County, North Carolina. I am also representing the National Association of Counties.

Counties are on the front line of defense before and after disaster strikes. Following a disaster, local elected officials and emergency managers are first on the scene and play a key role in recovery and rebuilding efforts so our residents can return to their lives as

quickly as possible. As major owners and operators of public infrastructure, counties are uniquely positioned to mitigate the impacts of disasters. America's 3,069 counties, parishes, and boroughs own 44 percent of public roads, 38 percent of the National bridge inventory, and over 900 hospitals, and directly support a third of the Nation's airports.

I am here today to underscore the county role in strengthening our Nation's resilience against all types of disasters and to discuss how we can best work together to meet the challenges of today and the demands of the future.

First, improving our Nation's resilience is only possible by giving communities the tools to address the unique issues facing their jurisdiction. Disaster response, recovery, and mitigation starts local and it ends local. However, our efforts would not be possible without the support from Federal programs that assist in identifying and mitigating future threats. Once such program that many large urban areas, like Mecklenburg County, rely on is FEMA's Urban Area Security Initiative, better known as UASI. UASI funding is critical to ensuring high-density urban areas have the resources necessary to mitigate and respond to acts of terrorism. However, funding is not guaranteed each year.

In 2019 Mecklenburg County did not receive funding, leaving our ability to proactively address and respond to possible threats dramatically diminished. Counties appreciate bipartisan efforts, such as their Homeland Security Capability Preservation Act, which would ensure continued funding and resources to areas that have previously received UASI funding, but have fallen off due to program changes.

Second, removing the barriers to funding and resources for underserved and disadvantaged communities is critical. Requiring the completion of complex and burdensome paperwork by communities who are unfamiliar with the process during the most stressful times of their life, can significantly impede progress when it is most needed.

Populations that feel the biggest impact are often our underserved and disadvantaged communities who lack the resources and the capacity to complete applications and meet critical deadlines. Implementing plain language into applications and identifying resources available to assist applicants is paramount to approving the overall resilience of the Nation.

Counties are supportive of recently-introduced FEMA Equity Act, which would seek to address inequities in access to Federal disaster assistance programs and reduce barriers to recovery and response resources.

Finally, counties understand that improving our Nation's resilience relies on a strong Federal, State, and local partnership. Counties are not merely stakeholders in this conversation, rather we are part of a Federal, State, and local partnership of governments that together share the responsibility of protecting our Nation and its residents from all types of disasters. While disasters are inherently local, counties rely on our State and Federal partners for critical disaster recovery tools, like funding, human capital, and technical assistance. Rebuilding our communities and making them more re-

silient is only possible with the support of our Federal and State partners.

In conclusion, counties stand ready to work side-by-side with you to improve our Nation's resilience and ensure the health, well-being, and safety of our citizens.

Chair Demings, Ranking Member Cammack, again, thank you for the invitation to discuss this critical issue on behalf of America's counties.

This concludes my testimony and I am happy to take your questions.

[The prepared statement of Mr. Dunlap follows:]

PREPARED STATEMENT OF GEORGE DUNLAP

MAY 17, 2022

INTRODUCTION

Chair Demings, Ranking Member Cammack, and distinguished Members of the subcommittee, on behalf of the National Association of Counties (NACo), thank you for the opportunity to testify today on the important role counties play in making our Nation more resilient.

My name is George Dunlap, and I serve as the chairman of the board in Mecklenburg County, North Carolina, and as vice chair of the justice and public safety policy steering committee and large urban county caucus at 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.

As part of NACo's mission, the justice and public safety policy steering committee works to strengthen county resiliency by advocating for Federal policies and programs that help county leaders identify and manage risk and allow counties to become more flexible and responsive to disasters. Through sustainable practices and infrastructure, counties become better prepared to address these issues in a manner that can minimize the impact on our residents and businesses.

My home of Mecklenburg County, North Carolina is home to over 1.1 million residents to whom we provide critical services, including public safety and emergency services, public housing, health and human services, transportation and more. We predominantly rely on local property taxes to ensure our many responsibilities are met; however, due to constraints on local revenues that are enforced at the State level, a strong intergovernmental partnership is critical as we work to meet the challenges of today and plan for the future.

Abutting the South Carolina border, Mecklenburg County stretches over 500 square miles in southwest North Carolina with a large urban center in the city of Charlotte surrounded by smaller, more rural communities. All of America's counties are highly diverse and vary immensely in geography and natural resources, social and political systems, cultural, economic and structural circumstances, public health and environmental responsibilities. Of the Nation's 3,069 counties, approximately 70 percent are considered rural with populations of less than 50,000, and 50 percent of these counties have populations below 25,000. At the same time, there are more than 120 major urban counties, where essential services are provided locally to more than 130 million county residents each day.

Paramount among other critical county responsibilities is the role of counties in community preparedness. Counties are on the front lines 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 and emergency managers are often the first on the scene and play a key role in the coordination of local emergency management efforts. Other key county staff involved in pre- and post-disaster efforts include local police, sheriffs, firefighters, 9-1-1 call center staff, public health officials, and public records and code inspectors. In the aftermath of disasters, we coordinate clean-up, recovery, and rebuilding efforts so 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 the impacts of disasters before they occur. Collectively, we own 44 percent of public road miles, 38 percent of the National Bridge

Inventory, 960 hospitals, more than 2,500 jails, over 650 nursing homes and directly support a third of the Nation's airports and public transit systems. We also own and maintain a wide variety of public safety infrastructure, including roadside ditches, flood control channels, stormwater culverts and pipes and other infrastructure used to funnel water away from low-lying roads, properties, and businesses. Counties provide extensive outreach and education to residents on water quality and stormwater impacts prior to and following disasters, and we work to reduce water pollution, adopt setbacks for land use plans and are responsible for water recharge areas, green infrastructure, and water conservation programs.

Over the past 20 years, natural and man-made disasters have increased in frequency, severity, and cost. On average, 24 percent of counties have experienced at least one disaster in each of the last 3 years. Last year, 965 counties experienced at least one Federally-declared major disaster, 590 counties had at least one emergency declaration and 850 counties had at least one disaster declaration. During 2021, the Nation experienced 20 separate billion-dollar disasters, which totaled approximately \$145 billion in damages.

Counties are not merely stakeholders in this conversation. Rather, we are a part of the Federal-State-local partnership of governments that together share the responsibility of protecting our Nation and its residents from both natural and man-made disasters. Like the Federal Government, counties are entrusted by taxpayers to provide a variety of important services to their residents, and we stand ready to work with our intergovernmental counterparts to improve community resiliency and mitigate the impacts of future disasters. To this end, counties offer the following considerations:

- Ensuring Federal programs provide communities with the tools and flexibility necessary to address issues specific to their jurisdiction is paramount to improving our Nation's overall resilience.
- Federal policy makers must remove barriers to funding and resources for underserved and disadvantaged communities by providing adequate technical assistance and decreasing paperwork.
- County officials are effective stewards of Federal investments, and a strong intergovernmental partnership is needed to meet the entirety of our public sector responsibilities.

Ensuring Federal programs provide communities with the tools and flexibility necessary to address issues specific to their jurisdiction is paramount to improving our Nation's overall resilience.

Disaster response, recovery, and mitigation starts local and ends local. Counties are currently tackling one of the largest cumulative recovery efforts our Nation has ever experienced in the COVID-19 pandemic, while simultaneously continuing to meet our daily responsibilities around ensuring our communities remain safe and resilient to the next pandemic or disaster. While we are doing our part at the local level, effective resilience improvements would not be possible without the continued support from the Federal Government who administers programs that provide vital resources to support assessing potential future threats. Ensuring these programs remain flexible and accessible is vital to increasing the resilience of our Nation as each jurisdiction must have the authority to make decisions unique to the challenges being faced.

One such program that large urban areas like Mecklenburg County rely on is the Federal Emergency Management Agency Urban Area Security Initiative (UASI) program. UASI assists high-threat, high-density urban areas in building and sustaining the capabilities necessary to prevent, protect against, mitigate, respond to, and recover from acts of terrorism. Funding provided by UASI is critical to ensuring the Nation's most populous areas can protect both critical infrastructure and our residents during high-profile and mass gathering events. However, because UASI eligibility is based on an annual threat vulnerability formula that is used to determine the number of UASI jurisdictions, future funding through the program is not guaranteed.

For example, the UASI jurisdiction of Charlotte, North Carolina—which encompasses Mecklenburg County—went unfunded in 2019. As a result of this loss in funding, our jurisdiction was not able to fund planned purchases of anti-terrorism equipment for law enforcement, bomb squad equipment, and communications equipment. Given that the Charlotte area holds major public events almost weekly, and with the 2020 Republican National Convention having been scheduled for that August, our ability to proactively address and respond to known threats and hazards was dramatically diminished.

The uncertainty in UASI funding from UASI has left many counties in similar circumstances to Mecklenburg County. NACo was encouraged to see that the number of UASI jurisdictions increased from 31 in fiscal year 2021 to 36 in fiscal year

2022 in the recent notice of funding opportunity that was released last week but remain concerned that future funding for these areas is not guaranteed. To address these concerns, NACo strongly supports Chairwoman Demings and Representative Bacon's Homeland Security Capabilities Preservation Act (H.R. 5615). This critical piece of legislation would provide jurisdictions who were in receipt of UASI funds in previous fiscal years with resources and assistance to continue projects previously initiated by this funding and ensure counties have the ability to continue to address threats specific to their areas.

Federal policymakers must remove barriers to funding and resources for underserved and disadvantaged communities by providing adequate technical assistance and decreasing paperwork.

Unfortunately, bureaucratic red tape follows a disaster. For example, requiring the completion of complex and overly burdensome paperwork by communities who may be entirely unfamiliar with system protocols and who are attempting to undertake these processes during the most stressful times of their lives can significantly impede progress when it is needed most. Populations that feel the biggest impact are often our underserved and disadvantaged communities where resources and capacity to complete applications and meet critical deadlines can be severely exacerbated.

Ensuring no communities are left behind in the bid to recover requires reexamining current procedures for applying for Federal funding. Implementing plain language into applications, providing clear time lines and identifying resources available to assist applicants during the process are paramount to improving the resiliency of our communities. Excessive paperwork and lack of clarity can be particularly difficult for jurisdictions who may be under-resourced or dealing with co-occurring disasters, as we saw with many parts of the country throughout the last 2 years during the pandemic.

Counties appreciate initiatives from FEMA, such as the streamlined application process developed for COVID-19 Public Assistance funding and the Direct Technical Assistance (DTA) offered to communities who are interested in applying for the Building Resilient Infrastructure and Communities (BRIC) program. While these are worthwhile endeavors, safeguarding equal access for all communities remains a concern. Many of these FEMA program areas are understaffed and face other challenges that can result in delayed response times and the degradation of the overall assistance being offered.

Therefore, counties are supportive of the recently-introduced FEMA Equity Act (H.R. 7668/S. 4159) from Chairman Bennie Thompson and Senator Elizabeth Warren, which would seek to address inequities in access to Federal disaster assistance programs and reduce barriers to vital recovery and response resources. This legislation is a critical first step in ensuring communities who have habitually been left out of the disaster recovery process are able to equitably access funding to rebuild and mitigate against future disasters.

County officials are effective stewards of Federal investments, and a strong intergovernmental partnership is needed to meet the entirety of our public-sector responsibilities.

Counties across the country are working daily to address the needs of our residents and make decisions that drive the success of our jurisdictions. While we are doing our part at the local level, 45 States limit the ability of counties to raise revenue in various ways, making the intergovernmental partnership vital to meeting our public-sector responsibilities. Only 29 States authorize counties to collect sales taxes, but almost always under various restrictions. 26 States impose a sales tax limit and 19 require voter approval. For western counties, who are at great risk of flooding and wildfires, State restrictions on local revenues can be even more impactful, as much of the land within western county boundaries is considered Federal land, thus removing the ability of a county to levy property taxes.

While disasters are inherently local, counties rely on our State and Federal partners for critical disaster recovery tools, like funding assistance, human capital, and technical assistance. Without proper Federal and State support, county recovery and mitigation efforts may lack the full capabilities necessary to rebuild our communities and make them more resilient against future disasters. In an environment where counties have limited financial flexibility, a strong intergovernmental partnership is crucial to community recovery and key to the success of future mitigation efforts.

With that in mind, counties call on Congress to consider the State, Local, Tribal, and Territorial Fiscal Recovery, Infrastructure, and Disaster Relief Flexibility Act (H.R. 5735/S. 3011), introduced by Representative Dusty Johnson and Senators

John Cornyn and Alex Padilla. This critical legislation would allow for counties to allocate up to \$10 million in funding received from the State and Local Fiscal Recovery Fund—included in the American Rescue Plan Act—for eligible transportation projects and disaster relief. This added flexibility would allow for counties to invest in our Nation's recovery on the ground, based on local priorities, circumstances, and needs.

CONCLUSION

Counties are on the front lines of the pre- and post-disaster efforts, and without proper Federal assistance, recovery and mitigation efforts may lack the full support necessary to rebuild our communities and return to normal the lives of our residents.

Chair Demings, Ranking Member Cammack, and distinguished Members of the subcommittee, thank you again for inviting me to testify here today.

Counties stand ready to work side-by-side with our Federal and State partners to make our communities more resilient and ensure the health, well-being, and safety of our citizens.

Chairwoman DEMINGS. Thank you so much, commissioner, for your testimony.

The Chair now recognizes Mr. Currie to summarize his statement for 5 minutes.

STATEMENT OF CHRIS P. CURRIE, DIRECTOR, HOMELAND SECURITY AND JUSTICE TEAM, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. CURRIE. Thank you, Chairwoman Demings and Ranking Member Cammack. Can you hear me OK?

Chairwoman DEMINGS. Yes, we can.

Mr. CURRIE. Excellent. Really appreciate the opportunity to be here today to discuss National resilience.

Making our communities and infrastructure more resilient is one of the few solutions we have to address the growing number of risks that we face. While preventing bad things from happening is critical, we can't prevent everything. There are just too many threats.

In my mind, resilience is really about being proactive today to address the future threats. It is very optimistic, because we can actually do something to address these things that we are all scared of.

Federal, State, and local entities face threats from cybersecurity, extreme weather, domestic terrorism, crime, pandemics, and many other things. For example, since 2005 the Federal Government has spent almost \$600 billion in response to various disasters. It spent trillions in response to COVID-19 and DHS alone has spent over \$60 billion—or almost \$60 billion to State and local governments since 9/11 to better prepare for terrorism and other threats.

Today I just want to highlight some of our recent work in the area of preparedness and resilience.

First, since 9/11 we have been assessing DHS and FEMA's efforts to assess National capabilities and target grants to address any gaps. FEMA works with local jurisdictions to help assess their gaps and target grant funds toward 32 unique capability areas. These grants have built critical State and local capabilities that would not be possible without them. For example, FEMA assessment data show that years of investment have built high levels of capability in law enforcement and emergency services response, as well as interoperable communication, for example. This is no sur-

prise because Federal preparedness grants have been spent most in these areas.

However, we found a number of capability gaps still exist. Assessments over numerous years consistently identify gaps in important areas like recovery, post-disaster housing, cybersecurity, and supply chain security, which, by the way, all of these things are things we have seen pop up in recent events, like COVID-19.

These are critical gaps that are consistent weaknesses in these real-life scenarios. These are also areas where grants have been least invested. That is just what the data show. While important to maintaining existing capabilities, we recommended FEMA decide what resources and efforts are needed to close these gaps. They agreed with this and are working to better align funding with these major capability gaps.

Another key area I want to discuss is infrastructure. The Federal Government, through FEMA and other agencies, and the recent infrastructure bill, for example, spent billions of dollars to build and rebuild damaged infrastructure. This is a tremendous opportunity to incorporate resilience throughout the country to future damage. Recently, Congress, this committee, and agencies have recognized this and are diverting more dollars to pre-disaster mitigation programs, like FEMA's BRIC program.

This is a great step, but we found there are still challenges in State and local abilities to effectively use existing resilience programs. You heard this is Mr. Dunlap's opening statement and Congressman Higgins'. You know we recently found that State and local officials consistently identify challenges with these grant programs. They include complicated and lengthy application processes and the need for incredibly technical capacity that many communities just don't have. Since resilience projects typically require a lot of resources and expertise, these challenges serve as a disincentive sometimes to communities, particularly those that are disadvantaged or lack resources. This is what our work has shown over the years. For example, it has been a consistent challenge in Tribal communities that don't have the manpower and the resources. So we recommended several improvements to streamline and try to improve these programs.

Last, I just want to talk about what I think is one of the biggest challenges and obstacles to resilience. Resilience is a very broad term and a very lofty goal. I don't see it as an end state, I think it is a continuous process. This can sometimes make it really hard to achieve and to measure it. To help tackle this, GAO issued a disaster resilience framework a couple of years ago to provide Government leaders and those that analyze Government programs with a way to assess all programs and identify opportunities to better incorporate resilience. I can go to some of those principles a little bit more during the hearing.

But this completes my prepared statement and I really look forward to discussing this issue.

[The prepared statement of Mr. Currie follows:]

PREPARED STATEMENT OF CHRIS P. CURRIE

MAY 17, 2022

GAO HIGHLIGHTS

Highlights of GAO-22-106046, a testimony before the Subcommittee on Emergency Preparedness, Response, and Recovery, Committee on Homeland Security, House of Representatives.

Why GAO Did This Study

Each year, disasters such as hurricanes and wildfires affect hundreds of American communities. The Federal Government provides billions of dollars to individuals and communities that have suffered damages. According to the U.S. Global Change Research Program, extreme weather events are projected to become more frequent and intense in parts of the United States as a result of changes in the climate. Investments in disaster resilience can reduce the overall impact of future disasters and costs.

This testimony discusses GAO reports issued from 2015 through 2021 on disaster preparedness and resilience. This includes FEMA's National Preparedness System and associated grants; hazard mitigation grant programs; and GAO's Disaster Resilience Framework for identifying opportunities to enhance resilience. The statement also describes actions taken to address GAO's prior recommendations through March 2022.

For the prior work, GAO reviewed relevant documents, including agency policies, strategic plans, and other reports. GAO also interviewed Federal and State officials, and a range of relevant stakeholders. For recommendation updates, GAO reviewed agency documentation.

What GAO Recommends

GAO has made recommendations in prior reports to address issues discussed in this statement. FEMA has taken steps to address some of these recommendations, and GAO continues to monitor agency progress in implementing them.

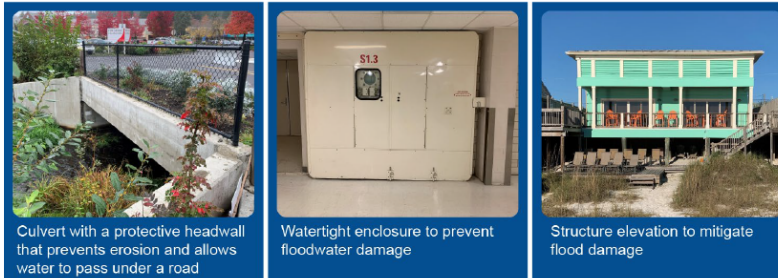
DISASTER RESILIENCE.—OPPORTUNITIES TO IMPROVE NATIONAL PREPAREDNESS

What GAO Found

GAO has evaluated Federal efforts to strengthen National preparedness and resilience and identified opportunities for improvement in several key areas:

- *FEMA Efforts to Strengthen National Preparedness.*—The Federal Emergency Management Agency (FEMA)—the lead agency for disaster preparedness, response, and recovery—assesses the Nation's emergency management capabilities and provides grants to help State, local, Tribal, and territorial governments address capability gaps. In May 2020, GAO found that FEMA and jurisdictions have identified emergency management capability gaps in key areas such as recovery and mitigation. GAO recommended that FEMA determine steps needed to address these capability gaps. FEMA agreed and plans to develop an investment strategy that aligns resources with capability gaps.
- *FEMA's Hazard Mitigation Grant Programs.*—In February 2021, GAO found that State and local officials faced challenges with FEMA's hazard mitigation grant programs. Specifically, officials GAO interviewed from 10 of 12 selected jurisdictions said grant application processes were complex and lengthy. This could discourage investment in projects that would enhance disaster resilience. FEMA officials said they intended to identify opportunities to streamline, but did not have a plan for doing so. GAO recommended that FEMA develop such a plan. FEMA agreed and is in the process of doing so.
- *Identifying Opportunities to Enhance Disaster Resilience.*—In October 2019, GAO issued a framework to guide analysis of Federal actions to promote resilience to natural disasters and changes in the climate. For example, the framework can help identify options to address Government-wide challenges that are of a scale and scope not addressed by existing programs.

Examples of Hazard Mitigation Projects



Source: GAO. | GAO-22-106046

Chairwoman Demings, Ranking Member Cammack, and Members of the subcommittee: Thank you for the opportunity to discuss our past work on Federal efforts to better prepare for future disasters and create a more resilient Nation.

Each year, disasters such as hurricanes, tornadoes, and fires, affect hundreds of American communities. In response, the Federal Government provides billions of dollars to communities who have suffered damages to help them rebuild infrastructure and make it more resilient to future damages.

According to the U.S. Global Change Research Program, certain extreme weather events are projected to become more frequent and intense in parts of the United States as a result of changes in the climate.¹ The rising number of natural disasters and increasing reliance on Federal assistance by those in affected communities is a key source of Federal fiscal exposure. Since 2005, Federal funding for disaster assistance has totaled at least \$593 billion, which consists of obligations for disaster assistance from 2005 through 2014 totaling about \$278 billion² and select appropriations for disaster assistance from 2015 through 2021 totaling \$315 billion.³ As a result, we have included “Limiting the Federal Government’s Fiscal Exposure by Better Managing Climate Change Risks” on our list of high-risk Federal program areas since 2013.⁴ Moreover, the Federal Emergency Management Agency (FEMA)—the agency that coordinates disaster preparedness, response, and recovery support at the National level—reports that since 2002 it has provided over \$54 billion in preparedness grants intended to enhance various capabilities, including those related to disaster resilience.

Investments in disaster resilience are a promising avenue to address the Federal fiscal exposure because such investments offer the opportunity to reduce the overall impact of future disasters. For example, in 2018 we reported that elevating homes and strengthening building codes in Texas and Florida prevented greater damages during the 2017 hurricane season.⁵ In addition, the National Institute of Building Sciences concluded that disaster resilience investments can save from \$3 to \$11 per dollar invested, depending on the circumstances and type of hazard.⁶

According to FEMA, individuals and communities, the private and nonprofit sectors, faith-based organizations, Tribes, and all levels of government must work together to achieve the National Preparedness Goal. The Goal is for: “A secure and

¹The U.S. Global Change Research Program is a research coordinating body that spans 13 Federal agencies. See *U.S. Global Change Research Program, Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, vol. 2* (Washington, DC: 2018).

²See GAO, *Federal Disaster Assistance: Federal Departments and Agencies Obligated at Least \$277.6 Billion During Fiscal Years 2005 through 2014*, GAO-16-797 (Washington, DC: Sept. 22, 2016).

³This total includes \$240 billion in select supplemental appropriations to Federal agencies for disaster assistance and approximately \$75 billion in annual appropriations to the Disaster Relief Fund for fiscal years 2015 through 2021. It does not include other annual appropriations to Federal agencies for disaster assistance. Of the supplemental appropriations, \$97 billion was included in supplemental appropriations acts that were enacted primarily in response to the COVID-19 pandemic.

⁴GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, GAO-21-119SP (Washington, DC: March 2, 2021).

⁵GAO, *2017 Hurricanes and Wildfires: Initial Observations on the Federal Response and Key Recovery Challenges*, GAO-18-472 (Washington, DC: Sept. 4, 2018).

⁶Multihazard Mitigation Council, a council of the National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2018 Interim Report* (Washington, DC: December 2018).

resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.”⁷ To support this goal, FEMA provides various grant programs that support many communities’ preparedness, response, recovery, and disaster resilience efforts.

My testimony today discusses key findings from products we issued from 2015 through 2021 on: (1) FEMA’s National Preparedness System and Homeland Security Grants, (2) FEMA’s Hazard Mitigation Programs, and (3) GAO’s Disaster Resilience Framework for identifying opportunities to enhance climate resilience. To conduct our prior work, we reviewed relevant documents, including agency policies, strategic plans, and other reports, such as FEMA’s Summary of Stakeholder Feedback and the U.S. Global Change Research Program’s Fourth National Climate Assessment reports.⁸ We also interviewed Federal and State officials, and a range of relevant stakeholders. More information on our scope and methodology can be found in each of the reports cited throughout this statement. In addition, after the issuance of our reports and through March 2022, we contacted officials at the Department of Homeland Security to obtain updated information and documentation, as appropriate, on the status of the recommendations we made in our prior products.

We conducted the work on which this statement is based in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

THE NATIONAL PREPAREDNESS SYSTEM AND FEMA GRANTS HAVE HELPED STRENGTHEN CAPABILITIES, BUT GAPS REMAIN

We have reported that FEMA uses the National Preparedness System to help assess the Nation’s emergency management capabilities.⁹ Specifically, the National Preparedness System is designed to help communities measure and assess distinct emergency management capabilities (“core capabilities”). Capabilities fall in five mission areas: (1) Prevention—preventing imminent acts of terrorism; (2) protection—protecting citizens and assets; (3) mitigation—mitigating the loss of life and property; (4) response—responding quickly to save lives; and (5) recovery—timely restoration of infrastructure and housing; among other things. In the mitigation mission area, for example, the core capabilities include community resilience; long-term vulnerability reduction; risk and disaster resilience assessment; and threats and hazard identification.

We further reported that FEMA has used the National Preparedness System to help prioritize its preparedness grants to help State, local, Tribal, and territorial communities address gaps in their emergency management capabilities. FEMA has traditionally provided three primary preparedness grants that jurisdictions can use to strengthen the core capabilities.¹⁰

- *State Homeland Security Grant Program*.—Helps support States’ implementation of homeland security strategies to address the identified planning, organization, equipment, training, and exercise needs at the State and local levels. For fiscal year 2022, the total funding available to all 50 States, the District of Columbia, and 5 territories is \$415 million.
- *Urban Area Security Initiative*.—Provides Federal assistance to address the unique needs of high-threat, high-density urban areas, and assists the areas in building a capacity to prevent, prepare for, protect against, and respond to acts

⁷The White House released Presidential Policy Directive 8 on National Preparedness in March 2011. It directed the Secretary of Homeland Security to design a National preparedness system to address the threats posing the greatest risk to the security of the Nation and issue various policy and planning documents designed to strengthen National preparedness. Additionally, it required the Secretary to develop a National Preparedness Goal that identifies the core capabilities necessary to achieve preparedness.

⁸FEMA, *Summary of Stakeholder Feedback: Building Resilient Infrastructure and Communities* (Washington, DC: Mar. 2020), and U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, vol. 2* (Washington, DC: 2018).

⁹GAO, *National Preparedness: Additional Actions Needed to Address Gaps in the Nation’s Emergency Management Capabilities*, GAO–20–297 (Washington, DC: May 4, 2020).

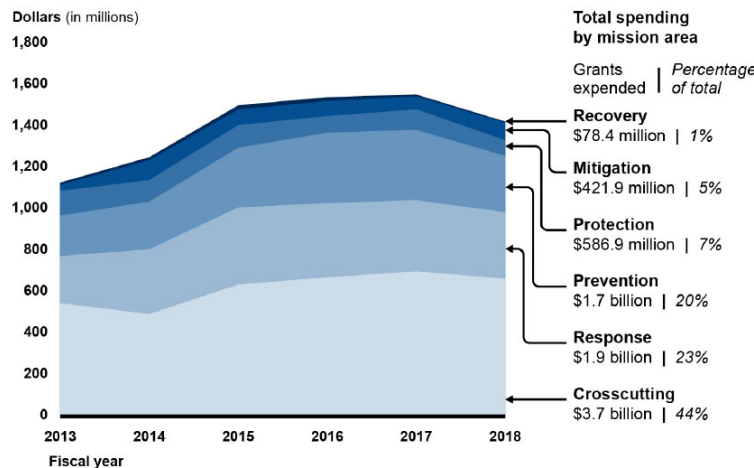
¹⁰Two of the three grants, the State Homeland Security Grant Program and the Urban Area Security Initiative, were established after the terrorist attacks of September 11, 2001. As established by Federal law, these grants are intended to help States and localities prevent, prepare for, protect against, and respond to acts of terrorism. 6 U.S.C. §§ 604, 605.

of terrorism. For fiscal year 2022, the total funding available to the 31 urban areas is \$615 million.

- *Emergency Management Performance Grant.*—Provides Federal assistance to States to assist State, local, and Tribal governments in preparing for all hazards. In fiscal year 2022, the total funding available to States, local governments, and Tribes is \$405 million.

Since 2012, the Department of Homeland Security has annually produced a National Preparedness Report, which assesses progress toward the National Preparedness Goal of achieving a secure and resilient Nation. A key element of the National Preparedness Report is that it evaluates and measures: (1) The extent to which jurisdictions have strengthened their core capabilities and (2) which capabilities have the largest gaps. We previously found that according to National Preparedness Reports since calendar year 2012, States and territories generally have rated their capabilities within the prevention and response mission areas, as well as their cross-cutting capabilities—which involve all five mission areas—as having the highest preparedness levels. We also reported that by contrast, States and territories generally have rated their capabilities in the recovery and protection mission areas as having lower preparedness levels. These lower preparedness ratings showed little to no improvement from 2013 to 2017.

From 2013 to 2018, jurisdictions have directed about 87 percent (about \$7.3 billion) of their FEMA preparedness grants to the highest-rated mission areas—cross-cutting, prevention, and response. They directed 13 percent (about \$1.1 billion) to the lowest-rated mission areas—mitigation, protection, and recovery. (See fig. 1.)



Source: GAO analysis of Federal Emergency Management Agency data. | GAO-22-106046

FEMA has encouraged jurisdictions to invest future preparedness grants to strengthen their capabilities that have lower preparedness ratings and to address emerging threats, such as cybersecurity. However, at the time of our review, FEMA officials told us their efforts to help jurisdictions enhance their capabilities, including the distribution of existing preparedness grants, would likely not be sufficient to address the capability gaps that have been identified by jurisdictions.

In May 2020, we recommended that FEMA—following the completion of the 2021 National Preparedness Report—determine what steps are needed to address the Nation's emergency management capability gaps across all levels of government and inform key stakeholders, such as the Office of Management and Budget and Congress, about what level of resources would be necessary to address the known gaps. FEMA agreed with our recommendation, published the National Preparedness Re-

port in December 2021, and plans to complete review of the National risk and capability assessment in June 2022.¹¹

Further, FEMA plans to develop a preparedness investment strategy, which is to establish priorities that align resources with the capability gaps. In 2020, FEMA established National response and recovery capability targets. These targets represent estimates of the capabilities required to manage the Nation's realistic worst-case scenarios, using standardized language. According to FEMA, the National response and recovery capability targets are to include those that were most stressed by the COVID-19 pandemic; as well as those which would be most stressed by hurricanes, floods, and wildfires. FEMA plans to identify the Federal resources and capabilities needed to address the National gaps by the end of 2022. These steps, if implemented effectively, should address the intent of our May 2020 recommendation.

FEMA ENCOURAGES DISASTER RESILIENCE THROUGH HAZARD MITIGATION GRANTS, BUT JURISDICTIONS HAVE REPORTED CHALLENGES

One way to save lives and reduce future risk to people and property from extreme weather events and other natural disasters is to enhance disaster resilience through investment in hazard mitigation. Hazard mitigation projects can include acquiring and demolishing properties in floodplains, seismic retrofits to reduce earthquake damage, and removing flammable vegetation around residential areas at risk of wildfires. Figure 2 shows additional examples of hazard mitigation projects. FEMA serves as the primary source of Federal grant funding for State, local, Tribal, and territorial investments in hazard mitigation to prevent future damage.

¹¹The Disaster Recovery Reform Act of 2018 requires that FEMA submit a report to relevant Congressional committees every 6 months on its progress in completing a National preparedness assessment of capability gaps at each level of government based on tiered, capability-specific performance objectives. FEMA developed the National Risk and Capability Assessment, a suite of preparedness assessments that measure risk and capability across the Nation in a standardized and coordinated way.

Figure 2: Examples of Hazard Mitigation Projects



Source: GAO. | GAO-22-106046

Through fiscal year 2019, FEMA administered four grant programs to provide funding to States, territories, Federally-recognized Tribes, and local communities for hazard mitigation planning, projects, and management costs. The four programs are Pre-Disaster Mitigation (replaced with the Building Resilient Infrastructure and Communities program in fiscal year 2020), Flood Mitigation Assistance, Hazard Mitigation Grant Program, and Public Assistance.¹²

In February 2021, we found that State and local officials from selected jurisdictions reported challenges with these hazard mitigation grant programs.¹³

- *Length and complexity of application processes.*—Officials we interviewed from 10 of 12 selected State and local jurisdictions we met with said grant application processes were complex and lengthy. For example, some officials stated that the applications were cumbersome, required excessive documentation, that different programs used different grants systems, and that the applications went through multiple rounds of review with different reviewers. In February 2021, we recommended that FEMA establish a plan to assess hazard mitigation grant processes to identify and implement steps to reduce the complexity of and time required for grant applications. FEMA agreed with this recommendation.

¹²In response to the Disaster Recovery Reform Act of 2018, FEMA replaced the Pre-Disaster Mitigation grant program with the Building Resilient Infrastructure and Communities program in fiscal year 2020. See 42 U.S.C. § 5133.

¹³GAO, *Disaster Resilience: FEMA Should Take Additional Steps to Streamline Hazard Mitigation Grants and Assess Program Effects*, GAO-21-140 (Washington, DC: Feb. 2, 2021). In addition to the three recommendations included here, we also made three additional recommendations that FEMA agreed with and is in the process of addressing.

As of March 2022, FEMA officials stated it had several on-going efforts to address the recommendation, such as drafting strategic plans and road maps meant to reduce complexity, but it had not yet fully developed these plans.

- *Technical capacity needed to successfully apply for grants.*—Technical capacity—having access to the technical skills needed to successfully apply for hazard mitigation grants—was cited as a challenge by officials from 8 of the 12 State and local jurisdictions we interviewed. We reported that some communities could hire contractors or leverage technical expertise of staff to develop and manage grant applications. However, other communities did not have technical staff, such as engineers, and lack dedicated grant managers or funding to hire contractors to develop hazard mitigation projects and grant applications. To address this, FEMA developed training and guidance, but we found that these resources were listed on different parts of FEMA's website, which could be difficult for State and local officials to locate. We recommended that FEMA create a centralized inventory of hazard mitigation resources on its website. FEMA agreed with this recommendation and, as of March 2022, FEMA officials stated they were in the process of updating FEMA's web pages and guidance.
- *Challenges with benefit-cost analyses.*—FEMA-funded mitigation activities are required to be cost-effective, and FEMA generally requires applicants to conduct a benefit-cost analysis to demonstrate that the estimated benefits of a project exceed the costs.¹⁴ Officials from all 12 State and local jurisdictions we met with said that the benefit-cost analysis for hazard mitigation grants was a challenge due, in part, to the amount of resources and data needed. For example, some of the officials said that project benefits, such as lost revenue avoided, can be difficult to calculate and may require hundreds of pages of data or technical project information to support. FEMA has taken some steps to make it easier for applicants to complete benefit-cost analyses, including developing pre-calculated benefits that allow prospective applicants to forego performing a detailed benefit-cost analysis for certain project types. Several stakeholders agreed that the pre-calculated benefits had helped. FEMA officials said they would like to develop pre-calculated benefits for additional project types such as electrical infrastructure and telecommunications but they did not have a plan to do so.

We recommended that FEMA establish a plan with time frames to develop pre-calculated benefits for additional project types, where appropriate. FEMA agreed, and in January 2022, FEMA provided documentation showing that it had developed an additional pre-calculated benefit for hospital generators, updated the acquisition and elevation pre-calculated benefit, and established a plan with time frames to develop pre-calculated benefits for additional project types. As a result of these actions, FEMA is better positioned to simplify the mitigation grant application process while ensuring mitigation investments are cost-effective.

GAO'S DISASTER RESILIENCE FRAMEWORK IDENTIFIES OPPORTUNITIES TO ENHANCE CLIMATE RESILIENCE

We have previously reported that the Federal Government has primarily funded disaster resilience projects in the aftermath of disasters—when damages have already occurred and opportunities to pursue future risk reduction may conflict with the desire for the immediate restoration of critical infrastructure.¹⁵ In October 2019, we issued the Disaster Resilience Framework to serve as a guide for analysis of Federal actions to facilitate and promote resilience to natural disasters and changes in the climate.¹⁶ According to the framework, investments in disaster resilience are a promising avenue to address Federal fiscal exposure because such investments offer the opportunity to reduce the overall impact of disasters. Users of the Disaster Resilience Framework can consider its principles and questions to analyze any type of existing Federal effort, identify gaps in existing Federal efforts, or consider the Federal role. Specifically, this framework can be used to identify opportunities to address gaps in Federal efforts by, for example, supporting identification of options to address Government-wide challenges that are of a scale and scope not addressed by existing programs.

The framework is organized around three guiding principles—information, integration, and incentives—and a series of questions that can help identify opportuni-

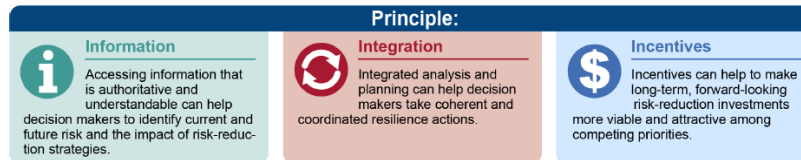
¹⁴ See 42 U.S.C. §§ 4104(c)(2)(A), 5133(f)(1), 5170(c)(a); 44 C.F.R. § 206.226(e).

¹⁵ See GAO, *Disaster Resilience Framework: Principles for Analyzing Federal Efforts to Facilitate and Promote Resilience to Natural Disasters*, GAO-20-100SP (Washington, DC: Oct. 23, 2019) and, for example, GAO, *Hurricane Sandy: An Investment Strategy Could Help the Federal Government Enhance National Resilience for Future Disasters*, GAO-15-515 (Washington, DC: July 30, 2015).

¹⁶ GAO-20-100SP.

ties to enhance Federal efforts to promote disaster resilience. (See fig. 3.) These principles can be applied to any Federal effort to help Federal agencies and policy makers consider what kinds of actions to take if they seek to promote and facilitate disaster risk reduction.

Figure 3: GAO's Disaster Resilience Framework



Source: GAO. | GAO-22-105046

Information.—We have found that accessing information that is authoritative and understandable can help decision makers identify current and future disaster and climate-related risks. Moreover, natural and climate disaster risk information that is accurate, comprehensive, and produced or endorsed by an authoritative source can help decision makers better assess their risk. However, this has historically been a challenge. For example, in November 2015, we reported that the climate information needs of Federal, State, local, and private-sector decision makers were not being fully met. In addition, the Federal Government's own climate data—composed of observational records from satellites and weather stations and projections from climate models—were fragmented across individual agencies that use the information in different ways to meet their missions.¹⁷ We recommended that the Executive Office of the President direct a Federal entity to develop a set of authoritative climate change projections and observations and create a National climate information system with defined roles for Federal agencies and non-Federal entities. As of April 2022, the Office has not yet taken action to implement these recommendations.

Integration.—In addition, we have found that integrated analysis and planning can help decision makers take coherent and coordinated actions to promote disaster and climate-related resilience. For example, in October 2019 we reported that no Federal agency, interagency collaborative effort, or other organizational arrangement had been established to implement a strategic approach to climate resilience investment that included periodically identifying and prioritizing projects.¹⁸ Such an approach could supplement individual agency climate resilience efforts and help target Federal resources toward high-priority projects. We recommended that Congress consider establishing a Federal organizational arrangement to periodically identify and prioritize climate resilience projects for Federal investment. As of April 2022, such a Federal organizational arrangement has not yet been established.

Incentives.—We have also found that incentives can lower the costs or increase the benefits of disaster and climate resilience efforts. Because much of the Nation's infrastructure is not owned and operated by the Federal Government, many resilience-related decisions ultimately are made by non-Federal actors, and those decision makers can face competing priorities. Incentives, such as conditions attached to available Federal funding, can help promote investments in disaster risk reduction and encourage disaster resilience decision making for infrastructure. An example of this is requiring building codes and standards based on the best available information for infrastructure that is built or repaired with Federal funds. As we reported in November 2016, design standards, building codes, and voluntary certifications play a role in ensuring the resilience of Federal and non-Federal infrastructure to the effects of natural disasters and extreme weather.¹⁹ We recommended a Government-wide approach in which the National Institute of Standards and Technology convenes an on-going Government-wide effort to provide forward-looking climate information to standards organizations. In January 2021, the Institute held a workshop aimed at connecting the U.S. building codes and standards development communities with agencies and organizations collecting and disseminating climate

¹⁷ GAO, *Climate Information: A National System Could Help Federal, State, Local, and Private-Sector Decision Makers Use Climate Information*, GAO-16-37 (Washington, DC: Nov. 23, 2015).

¹⁸ GAO, *Climate Resilience: A Strategic Investment Approach for High-Priority Projects Could Help Target Federal Resources*, GAO-20-127 (Washington, DC: Oct. 23, 2019).

¹⁹ GAO, *Climate Change: Improved Federal Coordination Could Facilitate Use of Forward-Looking Climate Information in Design Standards, Building Codes, and Certifications*, GAO-17-3 (Washington, DC: Nov. 30, 2016).

change information. However, as of February 2022, the National Institute of Standards and Technology had not yet taken action to implement this recommendation.

Chairwoman Demings, Ranking Member Cammack, and Members of the subcommittee, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

Chairwoman DEMINGS. Thank you so much, Mr. Currie, for your testimony. Thank you to all of our witnesses for your statements today.

I will remind the subcommittee that we will each have 5 minutes to question the panel.

I will now recognize myself for questions.

The Homeland Security Capabilities Reservation Act recognizes the importance of preserving capabilities achieved with UASI and would task FEMA with surveying current and former UASI jurisdictions to see if their capabilities were in fact impacted by the loss of UASI funding.

Chief Rolón and Commission Dunlap, Orlando, Florida and Charlotte, North Carolina have been on and off and then on again the UASI list. Could you share how this inconsistency has impacted your ability to build security capabilities and move us closer to that resilient kind of response or capability?

Chief.

Chief ROLÓN. So for Orlando, to be honest with you, we feel good where we are today, but it has never been—it has not always been this way. The fact that we have been playing catch-up for many years I think is the most disturbing part of that process that has resulted in us not getting the funding needed to better serve not only the citizens of Orlando, but the millions of visitors that come to visit our area on any given year.

So with that said, yes, progress is being made. But to be honest with you, we are still trying to catch up where we should be.

Chairwoman DEMINGS. Commissioner Dunlap.

Mr. DUNLAP. Well, in Mecklenburg County we were unable to maintain some of the projects that were initiated during 9/11. That severely impacted our ability to protect our citizens and to make sure that these threats were removed.

So the other thing to consider with Mecklenburg County is that while we are majority urban, there are six other townships within the Mecklenburg County that are more rural. As a result of the way the funding is allocated, we are penalized because we don't count those people who are rural. So that as well has had an adverse effect on Mecklenburg County.

Chairwoman DEMINGS. Commissioner, as you well know, the FEMA Equity Act is—the whole purpose is to try to make the process easier, if you will, for those in underserved areas, including rural and urban areas. What we are trying to do is make sure that when disaster strikes no zip code is left behind.

So could you just elaborate a little further about some of the challenges that those underserved communities have and how we can better work together?

Mr. DUNLAP. Well, one of the things I have outlined is the fact that some of these communities don't have the resources necessary to make application. The amount of money that they spend in order to apply when in fact they may not be accepted causes a tremendous burden on some of these communities. The communities that

are most adversely affected are the disadvantaged communities, as you have already stated. So it would be helpful if programs like that would consider maybe a different funding level or a different way to allocate resources to people who need it most but may not have the necessary tools to make application.

Chairwoman DEMINGS. Mr. Currie, you also talked about the growing number of risks and the challenges of the complicated lengthy application process. You mentioned the BRIC program as well. Could you also talk about some of the solutions as you see them to better be able to serve some of our most underserved communities?

Mr. CURRIE. Yes, ma'am. I think it is two big things.

First of all, we reported on this last year, these programs were not designed to target individual communities based on vulnerability or social index and they don't gather the data or the metrics to identify how the programs affect those communities versus others.

So first step is, and we have recommended this, they need to do a better job. Not just FEMA, but other Federal agencies too that provide disaster relief in collecting this data so they can figure out how to do this better.

The second piece really gets to this complexity. Congressman Higgins said this. You know, he has dealt with this a lot in Louisiana. You know, these disaster—it is hard enough to rebuild infrastructure the way it was before the disaster, but disaster resilience and to build it back better requires a certain level of technical complexity and expertise and, frankly, a lot of contract support that certain communities cannot afford or they don't have the staff to manage those projects.

So I think we also have to reduce the complexity and figure out how to get—you know, build the technical capacity of these communities, or get them the help in that area they need.

Chairwoman DEMINGS. Thank you so much.

At this time I recognize the gentlewoman from Florida, Mrs. Cammack, for 5 minutes.

Mrs. CAMMACK. Well, thank you, Chairwoman Demings.

I am going to jump right into it with Chief Rolón.

In your testimony you briefly touched on the 1033 program, which allows the DoD to transfer surplus equipment to local law enforcement agencies—it is a great example of how Federal Government can assist localities with disaster response. Specifically, there have been questions about how law enforcement is able to get their hands on 1033 equipment, but say first responders are not able to. Would it be beneficial to widen the program and make it more accessible for all first responders on the ground? Can you talk about some of the importance of the 1033 program as it relates to local law enforcement agencies?

Chief ROLÓN. You know, there is a lot of debate about the program. Obviously, we don't need tanks on our streets that are being give to us through some type of funding from assets that are available. But I think there is an opportunity for us to offset some of the expenses that we have for some of the equipment that we must have for officers to be able to perform their tasks. The Pulse incident was a perfect example. Some people did not like the idea of

armored vehicles being part of some police departments. The armored vehicles that we had were critical in our response to Pulse.

So with that said, I think that a properly-run 1033 program does have its benefits, not only for the law enforcement officers that are being tasked with tackling some of those unforeseen or unimaginable situations, but also as a way to better manage the funding, the limited funding that we in law enforcement and public safety in general are facing across the Nation.

Mrs. CAMMACK. Would you be open to first responders, say in the fire service, being able to access some of the equipment under the 1033 program that they currently are not able to?

Chief ROLÓN. Yes. We would be open to the idea of exploring what equipment is available that we could easily transfer to our public safety personnel. Absolutely. I think we need to do a better job though of explaining how the program works and what the benefits are so that we can make sure that the public is informed.

Mrs. CAMMACK. Excellent. Thank you, chief.

Now, for Mr. Currie—and I will forgive the University of Georgia diploma behind you, seeing as how I represent the Gator Nation—FEMA published the National Mitigation Investment Strategy in August 2019. Now, this was meant to be a single National strategy for advancing mitigation investment to reduce the risks posed by natural hazards and increasing the Nation's resilience to natural hazards.

So two parts here. If you are familiar with the Strategy, do you feel that the Strategy addresses enough aspects of mitigation? The second part being do you feel that the document is being widely embraced?

And go Gators.

Mr. CURRIE. Thank you for the question. I was wondering if you were going to see that in the background. I was thinking about—

Mrs. CAMMACK. Hard to miss.

Mr. CURRIE. OK. Thanks for the question.

So, first of all, I think—and we actually in 2016 or—no, 2015, when we issued a report after Hurricane Sandy, we had recommended that FEMA develop the National Mitigation Investment Strategy because we just didn't think there was enough strategic foresight and planning being put into how all the Federal disaster funding could better be used for resilience. So I agree that the Strategy was a great first step, however, it was just a strategy on paper.

Since that time I have been really pleased to see that with the building of the BRIC program and actually putting more Federal funds into pre-disaster mitigation, we are actually able to use that funding to target things that are identified in that Strategy, whereas before most of the dollars came after a disaster and they obviously went to the jurisdiction that was hit, which means you couldn't use it in places that weren't hit.

So I think the Strategy is great, but I think the additional funding and the marrying up of those two things is really critical.

Now, the last piece is actually now that these programs are in place, is seeing where they are going and how they are being used and what the benefit is. You know, we are just about there where we can assess that after a year or two of implementation.

Mrs. CAMMACK. Excellent. I appreciate it.

With that, I yield back.

Chairwoman DEMINGS. The gentlewoman yields back.

The Chair now recognizes the gentleman from Louisiana, Mr. Higgins, for 5 minutes.

Mr. HIGGINS. Thank you, Madam Chair.

It is intriguing to me, Mr. Dunlap, a couple of things that you said regarding accessing Federal monies in recovery. Does your county have a grant writer or a grant writing service you employ? Professionals?

Mr. DUNLAP. Mecklenburg County is privileged to have those capabilities.

Mr. HIGGINS. OK. So in your role representing counties across the country and communicating with your peers, how would you identify—how good are the counties doing regarding employing—recognizing the need to employ a well-trained and certified, highly-capable grant writer as a permanent employee of the county or as a contracted service? How aware are counties of just how valuable that position is to fill?

Mr. DUNLAP. Well, you know, the needs of counties are vastly different when you consider the fact that we have over 3,000 counties, parishes, and boroughs. So while one county might have the necessary resources to be able to do that, other counties may not. So it is important to us that—

Mr. HIGGINS. Do counties recognize the return on that investment?

Mr. DUNLAP. Oh, absolutely.

Mr. HIGGINS. I mean everything is—it is easy to be cool when everything is cool, you know, but when you are trying to recover from a storm and you are looking at major devastation and incredible expense, you know, all of the sudden, you know, the balance between the annual pay and retention of a qualified professional grant writer becomes minuscule in comparison to the potential reward of—and ability to recover for that government entity. This is one of the things that I am running into across the ten parishes that I serve, is that incredible disparity between—from one government entity to the next regarding the recognition of the need for a professional grant writer. It is an incredibly wise investment, and yet there is—in some areas there is sort of a tendency to not make that decision and that investment. Those communities are languishing in recovery as compared to those who have made that investment.

So I am just wondering what your assessment is there. What can you advise this committee regarding—perhaps we could look at re-directing the appropriated funds toward the government entities to help with the employment of professional grant writers to help navigate through this thing.

Mr. DUNLAP. I think helping to fund grant writers would certainly be beneficial to particularly those communities that are disadvantaged and don't have the necessary resources to do that. But one thing I can assure you of is that the communities that prepare would not be able to do so without the partnership between the Federal Government and our State government.

Mr. HIGGINS. Roger that.

Just, you know, navigating through the complexities is clearly a large problem. We have—you know, not to get into the weeds of it, but we had a storm a few years ago in Louisiana, not in my district, but a tremendous amount of money was appropriated in American treasure to recover from that storm. This was—we are talking about 6 years ago. Call it a billion dollars—just use round monies—and that money was appropriated at the Federal level, it was delivered to the State treasury, and as we sit right now over 60 percent of that money is still in the State treasuries. We can't quite get that money delivered to the people that need it. What stands in the way is this bizarre combination of Federal and State bureaucracy that we have got to find a way to break through.

Perhaps we have another round of questioning, Madam Chair. My time is expired.

But this is an important discussion for us to engage in and certainly it is bipartisan, so.

I thank the madam.

Chairwoman DEMINGS. The gentleman yields back. We are hoping, Mr. Higgins, to have a second round for those Members who would like to.

The Chair now recognizes the gentlewoman from Iowa, Ms. Miller-Meeks, for 5 minutes.

Ms. MILLER-MEEKS. Thank you, Chair Demings, and thank you Ranking Member Cammack. Thank you for our witnesses.

So I am in Iowa's second Congressional district, which houses the Des Moines River, the Cedar River, the Iowa River, the Wapsipinicon River, the Skunk River, and then the mighty Mississippi. So we are very used to floods. As part of that—and it is very possible that this project began with some of the grants that we are talking about—but at the University of Iowa we have a flood center that was set up after the 2008 flood, which was devastating to our area. So an engineer at the University of Iowa actually developed sensors with radio detection. So on all of these major rivers they have placed sensors on the bridges to detect levels of the water rise. So effective has this been in preparedness and in early detection that we are now teaching others throughout the country. We just had a delegation from Texas that was up to the University of Iowa flood center in order to help with that, and the University of Iowa flood center is one of 13 universities that are part of the Cooperative Institute for Research to Operators and Hydrology. There are 13 universities of which we are a part and it is housed at the University of Alabama Huntsville.

So it seems to me that as we are speaking about resiliency and preparedness, that this would be one of those things, early detection. Granted, FEMA is dealing with not just floods or natural disasters, but cybersecurity, which was mentioned as well and all of the other parts of disasters that may befall us as a country.

So I guess this question is for Mr. Currie. When we are talking about resiliency and preparedness, FEMA reports that since 2002 it has provided over \$54 billion in preparedness grants. How do we measure the effectiveness or impact of these grants? Such as I mentioned about the Iowa flood center, something that is very effective and is now being taught and trained and replicated across the country, which would make that an effective program. These

grants are intended to strengthen the capabilities of State and local grant recipients to prevent, protect, mitigate against, respond to, and recover from terrorist attacks and other disasters. So how are we measuring progress in community preparedness and resilience?

Mr. CURRIE. Thank you for the question. That is a great question, because we have been looking at this since 9/11. In the early days, frankly, after 9/11 when these grants were going out, there wasn't a lot of measurement. Over time that has gotten a lot better and FEMA actually has a pretty elaborate process it uses to work with States and local communities to do annual risk assessments which are supposed to identify basically the areas where the community is the strongest and the areas where it is the weakest or where there are gaps. Then that is supposed to feed into the actual preparedness grants that are given to the communities.

So, you know, what that picture looks like right now is where there have been the most investments, not surprisingly, the capabilities are the greatest. So things like interoperable radios, law enforcement coordination and communication. There has been a lot of investment in counterterrorism and law enforcement.

Speaking of flooding, the weakest areas in the National preparedness report cut across those resilience and recovery areas. So things like post-disaster housing, economic recovery, things that are aligned more with, you know, the effects of a natural disaster on a community. So, you know, we have been trying to point that out to let Congress and the agencies know that if you want to increase resilience in those areas, that, you know, more funding is probably going to have to be dedicated to those areas.

Ms. MILLER-MEEKS. That sort-of I think is in alignment with the question Representative Higgins was asking, so that information will be helpful.

Thank you so much and thank you to our witnesses for their testimony.

I yield back my time.

Chairwoman DEMINGS. The gentlewoman yields back.

The Chair now recognizes Mr. Garbarino from New York for 5 minutes.

Mr. GARBARINO. Thank you, Chairwoman, thank you to the Ranking Member for having this hearing, and to the witnesses for appearing today.

I want to start with Mr. Dunlap.

I understand that FEMA is working closely with CISA to implement the new \$1 billion State and local cybersecurity grant program. I was proud to join with Chairwoman Clarke in getting legislation signed into law. This program is imperative to increasing resilience in our communities, especially in light of recent heightened cyber threats from Russia and other foreign adversaries.

Do you believe officials at the State and local level, at the county level, have the personnel and expertise necessary to appropriately leverage these new funds?

Mr. DUNLAP. Well, that is an interesting question. I would hope that they would have the necessary people to do that, but understanding that cyber attacks are very difficult to control, you know. Being from Mecklenburg County, we were the victim of a ransomware. So when you consider the fact that ransomware pro-

hibits the county from operating for weeks, thereby causing us not to be able to provide the necessary resources to our citizens, the hope is that if we don't have the people necessary that resources will be made available so that we can assure that we have the proper people to conduct those kinds of things.

Mr. GARBARINO. So it would be very helpful to the counties, you think, that might not have the staff to leverage these funds through this grant program, it would be helpful to have the staff at CISA coordinate with FEMA, who oversees these funds, and make sure that the money is appropriately used, is used as best as it can be. So if we could get CISA team members to help out, that would be—would that be helpful?

Mr. DUNLAP. Sure it would. Another thing that would be helpful, if funding went directly to the counties. What I have learned is that when funding comes to the State, I think the State takes as much as 20 percent off the top, which reduces the amount of monies that the counties have to spend to address their cyber attacks or other disasters and things of that nature.

Mr. GARBARINO. I saw that when I was in the State legislature in New York. I saw our Governor used to do that all the time to the local counties.

Thank you very much for that answer.

Moving over, Mr. Rolón, you mentioned in your testimony that FEMA would benefit from creating a more formal process for soliciting law enforcement input on preparedness grants. Many of my constituents are still dealing with the aftermath of September 11, many of my communities on Long Island are still rebuilding from Hurricane Sandy. This year I led the Fiscal Year 2023 New York Bipartisan Delegation letter to the Appropriations Committee requesting robust funding for FEMA State and local grants to provide much-needed resilience funding to mitigate physical and natural risks. As Congress continues to provide robust funding to FEMA for these preparedness grants, how can we also ensure that FEMA is appropriately soliciting law enforcement input?

Chief ROLÓN. That is the No. 1 concern or complaint from many law enforcement entities, that unfortunately that vetting process to get the most accurate information from those affected the most is not there yet. You know, some comments were made about—you have—Representative Higgins mentioned that you have—have you invested in the proper staff to manage the grants or solicit for grants, obviously prepare the paperwork needed to get the funding. I would suggest that maybe the option should be that a FEMA subject-matter expert be sent to the agency, like the Orlando Police Department, will gladly set up an office space for them to have them in-house so that when we have these questions, when we go through these processes, we have them there providing us the guidance that is much-needed for the entities that need these funding approvals or submittals to be done accurately from the start. It shouldn't be what we have today, which is even when you ask for information, it is very limited, the feedback that you get or the guidance that you get because the information is so guarded.

So, again, for us I think the challenge has always been not knowing exactly what the data is that is used to process these requests

and often times it puzzles us whenever something is rejected as a result of the feedback that we get after the fact.

Mr. GARBARINO. Thank you, chief. I am out of time, but I would like to follow up with you some more on this to get some more specifics.

Thank you.

I yield back.

Chairwoman DEMINGS. The gentleman yields back.

We are going to engage in a second round of questions. So if you would like to, that option will be available. We thank our witnesses for their indulgence.

I will begin with myself.

Chief Rolón and Commissioner Dunlap, the COVID-19 pandemic has presented unprecedented challenges for everybody—medical personnel, first responders, law enforcement, and other emergency personnel. Could you talk just a little bit about how COVID-19 impacted your operations and what were the lessons learned that we can utilize moving forward?

Chief.

Chief ROLÓN. Our biggest challenge was initially sending our personnel to the unknown, knowing that it was literally taking lives across—you know, all over the world, yet we had no idea what we were dealing with. That was the first challenge. Probably that resulted in us identifying the fact that we needed people who could work with our officers to mentally prepare them to deal with that unknown. The mental wellness of our officers is key for us to perform and deliver our services. So right off the bat, when a situation like that arises, maybe we need to do a better job of identifying how it is that we can coach or support our officers when we send them out there.

The supply needs initially. Obviously, not having some of the protective materials or gear that our officers needed, that posed a challenge also for our personnel. But we quickly adapted to the situation, as we always do, and we were able to overcome the challenges. But I think the toll that it took on some of our officers, having to go out there and deal with the unknown, we are still feeling those today.

Chairwoman DEMINGS. Thank you, chief.

Commissioner.

Mr. DUNLAP. [Audio malfunction]—challenging to many of the operations in Mecklenburg County. One of the things that we learned was that it was important that we become more flexible because we were oftentimes making decisions on the fly. In addition to that, we understand the critical importance of communication in times of disaster. So we need—as you mentioned in your opening statement, the need for upgraded most technological communications systems would be very beneficial in that regard.

The other thing I will say to you is that we still have an issue of trust with Government. When the community makes a health decision, there is still this resistance to follow that because people simply don't trust Government. But I will say this, had it not been for the American Rescue Plan and the CARES Act funding, Mecklenburg County would not have been able to weather the storm when it comes to the impact of COVID-19.

Chairwoman DEMINGS. Thank you, commissioner.

Mr. Currie, do you have any follow-up that you would like to include about lessons learned from the pandemic and how we can do better as a Nation?

Mr. CURRIE. Thank you, ma'am.

There are so many lessons learned from COVID-19. Let me just talk about one thing we have looked at that pertains to this committee and emergency management.

We issued a report last year and we went back and all of the Federal exercises and plans that were done and developed in the years prior to COVID, going back many years, and what we identified was numerous interagency exercises between FEMA and the Department of Defense and HHS and others that were done on a very similar scenario to Covid. It identified a number of gaps, lessons learned, and after-actions that needed to be taken. In many cases the actions and the gaps were never closed, were never followed up on. Part of that is because accountability for closing those gaps really didn't exist. These agencies can't really tell each other what to do. Without instruction to do so coming from somewhere else, they weren't closed.

So many of these things were eerily linked to COVID. You know, supply chain challenges, Federal interagency decision-making questions about who was in charge.

So one of my biggest broadest takeaways is that when we do these exercises and these after-action reports after events or real-world events, that we actually close the gaps. It sounds simple, but it is something that is critical.

Chairwoman DEMINGS. Thank you, Mr. Currie.

Very quickly, too, how can the Nation improve its resilience to better protect against and recover from cyber attacks?

Mr. CURRIE. Well, I think the good news on this is that Congress has, again, sort-of like mitigation, they have dedicated more and more funding. DHS has a new program similar to the ones we have talked about today that CISA gives out to State and local governments for cybersecurity. FEMA preparedness grants can also be used for cybersecurity. So I think it is just a matter of emphasis and measurement, you know. Now that these programs are out there, you know, we need to look at how they are being used across the country, are they effective, are they being targeted to the right places in the State and local governments, and what impact are they having.

Chairwoman DEMINGS. Thank you so very much.

The Chair now recognizes Mr. Higgins from Louisiana for 5 minutes.

Mr. HIGGINS. Thank you, Madam Chair.

Mr. Currie, regarding our need to modernize our grid, and the utilities, and those utilities corridors across the country that provide our electricity and our water, gas, to communities and citizens everywhere, from sea to shining sea, this is a woven map of hundreds of entities working together in the effort to provide a seamless grid to the citizens of America. I would like to ask you today, sir, in the scope of today's hearing, where that modernization and hardening of our grid and our utilities corridor, where it intersects with the monies that we have invested as a Nation, through FEMA

programs and others, for recovery after disasters, it is common to hear folks say, you know, why don't you build back—when you are rebuilding after a storm or after a natural disaster anywhere, hurricane, fire, earthquake, whatever, why don't you rebuild with greater resiliency and modernization? Well, the answer is you have to get it back up fast.

So obviously the need to build resiliency and strength and modernization into our grid is very real, but the time to do that is not when you are trying to recover your community after a storm.

So, Mr. Currie, in your honest opinion, sir, do you believe that American treasure should be repurposed and directed toward communities that are willing to invest in hardening and modernizing their grid, whereby we as Nation could grow toward resiliency during a storm and a natural disaster for recovery?

Mr. CURRIE. Yes, sir. I think all communities want that, but you laid out the challenge really well. It is kind-of hard to justify to citizens and local official that, you know, you are going to spend years burying power lines and the grid is going to be down. I mean if power is not back up really quickly after a disaster, then bad things happen.

Mr. HIGGINS. Oh, it goes from bad to worse. I mean you have to get your utilities restored. That is job one in order for the community to respond and begin to recover and rebuild. You have got to have utilities restored.

So the time to make the investment—gradually. We can do it as a Nation, but county by county, community by community, municipality by municipality, those government entities have to make the sober decision to invest in modernization and hardening of their own utilities grid.

So personally I think that the answers are before us, but we have to be courageous enough to shift our investment from, you know, panicked recovery to a stable investment of a more resilient grid.

In my remaining minute, Mr. Currie, would you please expound upon that idea? How could we do that as a Congress? I don't support spending more money. I think we are \$31 trillion in debt, enough is enough. But we have been pouring money into programs that have a tendency to retain that treasure and not deliver it to the people. I just cited the example in my own State, \$1 billion delivered to the State—

Mr. CURRIE. Yes.

Mr. HIGGINS [continuing]. You know, \$600 million still in State coffers, not delivered. Maybe never will be.

So what do you think, Mr. Currie, what can we do as a Nation to be stronger and more resilient without wasting American treasure?

Mr. CURRIE. Well, sir, I mean there are avenues to get the power back up right away and funding streams to get the power back running. But, as you said, there is billions of dollars for long-term recovery. Great examples in Puerto Rico. So FEMA obligated over \$10 billion in the last couple of years to rebuild the grid more resiliently. Very, very little of that money has actually been spent.

So that money is there, it is going to be spent for the next decade or more. I think the challenge gets back to what you have laid out.

It is the complexity of these programs and having them go between the Federal, State, local level, and then in the case of power grids, often times, you know, public or private utilities. So you have four to five levels of process and frankly it gets caught up in the complexity of that process and that is why these things take so long.

Mr. HIGGINS. Agreed.

Madam Chair, my time has expired. But thank you for today's hearing and I thank our panelists and witnesses.

Chairwoman DEMINGS. The gentleman yields back.

With that I also want to thank our witnesses for their valuable testimony and the Members for their questions.

The Members of the subcommittee may have additional questions for the witnesses and we ask that you respond expeditiously in writing to those questions.

The Chair reminds Members that the committee record will remain open for 10 business days.

Without objection, the subcommittee stands adjourned.

[Whereupon, at 10:18 a.m., the subcommittee was adjourned.]

