

Comments for the Record  
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&  
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to  
House Committee on Science, Space and Technology  
United States House of Representatives  
December 2, 2019

Florida International University thanks Chairwoman Eddie Bernice Johnson, Ranking Member Frank Lucas, and the Members of the House Science, Space, and Technology for taking a lead on the reauthorization of the National Windstorm Impact Reduction Act, such a crucial cause for our country's resilience efforts. We hope to take this opportunity to share some of observations derived from some of our own research on windstorm impacts, building sciences and effective mitigation strategies. FIU and our researchers also extend our support as a resource as the Committee works through reauthorizing this act.

Founded in 1965, Florida International University is Miami's public research university and is focused on student success and research excellence. Ranked as a top-tier, R-1 research university by Carnegie's Classification of Institutions of Higher Education with nearly \$225 million in annual research expenditures, our faculty researchers and students are addressing some of the world's greatest challenges of our time. In particular we, are proud of our decades-long collaboration with most relevant federal agencies on disaster-related research.

We are committed to high-quality teaching, state-of-the-art research, creative activity, and collaborative engagement with our local and global communities as we support our 57,000 students and over 200,000 alumni.

The Extreme Events Institute (EEI) at FIU is at the forefront of disaster resilience and risk mitigation. FIU's facilities and researchers leverage the strengths of many of our colleges and schools to build greater capacity for society in disaster mitigation which also allows for the improvement to our nation's resilience. EEI has enabled a flexible team-building approach to research on hazards, exposures, vulnerabilities, and risk.

We wish to highlight observations derived from two specific collaborative centers within the Extreme Events Institute for the Committee to consider. Both the Wind Hazard and Infrastructure Performance Center (WHIP-C) and the Wall of Wind have been conducting research for both federal partners and the building industry.

The WHIP Center, which is funded by the National Science Foundation, and led by Texas Tech University with collaboration by Florida International University and Florida

Institute of Technology works to pursue research to enhance resiliency of buildings and infrastructure to resist extreme winds of hurricanes, tornadoes, and other windstorms.

The Wall of Wind is a testing facility was selected as one of the few National Science Foundation (NSF) Experimental Facilities under the Natural Hazard Engineering Research Infrastructure program, which allows for research and testing of structures with enough power to mimic a large scale, category 5 hurricane. From this facility, several patents have been created, including wind resistant structural nails.

Recommendations to Consider:

The impacts of the research initiatives led by FIU provide important observations for the Committee to consider as you develop a new authorization bill. It is our belief that Congress has an opportunity in a future National Windstorm Impact Reduction Act to prioritize:

- **Greater emphasis on Multi-hazard events:** Wind, wind-driven rain, storm-surge, earthquakes, engineering, social impacts, and more.
- **Category 5+ storms** – There is a clear trend of stronger hurricanes and more frequent events.
- **Real World Building Performance** – Pre- and post-event studies through field studies can guide efforts to build resilience towards windstorms.
- **More rapid Knowledge transfer to industry and policymakers--** This includes building codes and standards, mitigation, retrofits, innovation.
- **Multi-disciplinary research, including Studying social vulnerability** – Real life impacts of windstorms tell a story that goes past damage to buildings and other materials.
- **Efficient and effective funding plans, including increased extramural research to the nation's research universities** – Increasing extramural funding from agencies like NIST and the NSF.

Florida International University thanks the Committee for taking the time to consider our recommendations for the National Windstorm Impact Reduction Act Reauthorization. As the House Science, Space, and Technology Committee works to finalize the reauthorization, please consider FIU as a resource for any questions that may arise.