NATURAL HAZARDS CENTER

Making Mitigation Work:
A Webinar Series

Natural Hazards Center and FEMA Webinar Series "Making Mitigation Work" Written Questions and Answers after the November 12, 2019 Webinar Disaster Spending and Mitigation: A State-by-State Story

Colin Foard, The Pew Charitable Trusts, November 12, 2019

Questions about mitigation research:

Question from Grace Kang: When will the research be finalized and released?

Speaker response: We expect to release our research on disaster budgeting in spring 2020.

Question from Grace Kang: Are the natural disasters defined as single events (hurricanes, earthquakes) only? how are fires included? is the impact of climate change (rising temperatures impact on farming, rising sea levels and impact on infrastructure) included?

Speaker response: Pew's research on state disaster spending is focused on natural disasters, with the examples listed in the Robert T. Stafford Act as guidance. We requested that states not provide spending data related to man-made disasters, while acknowledging that some government programs—especially in preparedness—take an "all hazards" approach.

Our analysis of state-by-state mitigation benefit-cost ratios is based on the National Institute of Building Sciences' (NIBS) research, which looked at flooding, high winds, fire, and earthquake. NIBS' analysis does not account for changes to future risk based on climate.

Question from Virginia Michelin: Is there a report from NIBS that you can share about the Mitigation Saves?
Yes, NIBS' 2018 interim report.

Question from Anonymous Attendee: Are there examples of select federal mitigation programs (in this report)?

Speaker response: Mitigation funding comes from sources across the federal government, including FEMA, the Department of Housing and Urban Development (HUD), the Department of Commerce, and the Department of Agriculture. Our research has shown that spending information across those programs is not comprehensively tracked, but from an analysis of three major programs administered by FEMA—the Hazard Mitigation Grant Program, the Pre-Disaster Mitigation Grant Program, and Flood Mitigation Assistance—84 percent of spending on mitigation from 2007 to 2016 came after a disaster occurred. Previous speakers in this webinar series have discussed two other mitigation-related efforts at the federal level: the National Mitigation Investment Strategy and the new Building Resilient Infrastructure and Communities (BRIC) grant program. The NIBS Mitigation Saves report,

which formed a basis for our state-by-state analysis of mitigation savings, included funds from FEMA, HUD, and the Department of Commerce.

Question from Maria Chelo De Venecia: Can you elaborate the types of mitigation used by different states? Ex: buyout, elevation, etc. Which one is generally used by many? Thanks!

Speaker response: Our research found wide variation in mitigation spending across states. From 2012 to 2016:

- Arkansas invested more than $10 million in a program that provides reimbursements to property owners for tornado safe rooms and assistance to local governments for infrastructure improvements.
- Iowa established a statewide Flood Mitigation Board in 2012, which disbursed nearly $49 million for municipal mitigation projects.
- North Dakota's State Water Commission spent nearly $226 million to support local flood control and property acquisition projects.
- Ohio spent $11 million on riverine flooding projects.
- Oregon's Seismic Rehabilitation Grant Program invested nearly $36 million in earthquake retrofits for public structures.

In addition to projects, states and localities have enacted policies that have resulted in mitigation activities and savings. Pew's flood-prepared communities initiative recently published profiles of 13 examples of successful policies.

Questions about states and territories with available data:

Question from April O'Leary: Do you have specific data you can share with me for South Carolina and North Carolina? If I emailed you? Additionally, we are having a hard time proving the cost-benefit analysis to mitigate flood risk with future land use and development.

Speaker response: For information on the state-by-state benefits and costs of hazard mitigation, see our analysis of mitigation returns on investment. There you can download underlying data for each state. We have also highlighted the role of numerous federal and North Carolina agencies in post-Hurricane Matthew response and recovery. Finally, a recent publication from Pew's flood prepared communities initiative profiled efforts in Brevard, North Carolina to regulate construction in the flood plain.

Question from Tom Donnelly: I don't see info for Alaska or Hawaii on this map. Do you have data for those states?

Speaker response: That's right. The NIBS Mitigation Saves study, on which we based our methodology, did not include Alaska and Hawaii due to data limitations.

Question from Leah Haverhals: Do you have Puerto Rico data?

Speaker response: The unit of analysis for both the NIBS Mitigation Saves study and our work on disaster spending is the states. Our work also includes the District of Columbia and NIBS does not include Alaska and Hawaii. While the relationship with the federal government is unique to each territory, the lessons of our research on disaster spending remain relevant: many entities and agencies

are involved and more complete information on spending could lead to more forward-thinking and strategic investments.

Question from Andrea Brudnicki: Did you do any research into Tribal efforts for mitigation? What are the disparities there? How can Native American Tribes be brought into the fold (I.e. encouraged to mitigate more)?

Speaker response: Pew has not done any research on tribal efforts in mitigation.

Question from Summer Morlock: Is there a list somewhere of the states that have done statewide resiliency planning or are in the process of doing this planning? As well as a list of what states have centralized offices similar to NC?

Speaker response: Pew has not compiled such a list. However, as part of the state's information collection efforts, the Washington Disaster Resiliency work group has researched nationwide efforts.

Questions about disaster tracking for spending/costs:

Question from Brian Ambrette: Are there best practices from NC/OH/TN/etc. yet for tracking disaster spending?

Speaker response: Ohio's state disaster spending tracking policy, developed by the state's emergency management and budget agencies, is profiled here. The enacting legislation for North Carolina's Office of Recovery and Resiliency (SL 2018-136) details the agency's role in tracking spending to include state spending by program and source of funds, spending required to receive federal grants, federal spending, and tagging that information by phase of disaster, among other items.

Question from Sydney McKenna: What tools (or mechanisms) do you recommend that states use to better track their disaster costs?

Speaker response: For specific examples of state tracking practices in Ohio and North Carolina, see response to the previous question.

Additionally, our research found that states with a coordinating body focused on disaster assistance were able to leverage their relationships to provide data for our study. For example:

- Ohio leveraged interdepartmental contacts and relationships created through its State Recovery Partners, a group of 29 state agencies that participate in FEMA's long-term recovery activities.
- Arizona had a reporting system in place through its interagency Emergency Council, which reviews all disasters costing more than $200,000. The state emergency management agency also provides the council with a quarterly audit report verifying allocations and expenditures for disasters still in the response and recovery phases.
- Michigan provided only a subset of the requested information, but department staff indicated that cross-agency spending could potentially be tracked because the state's division of emergency management and homeland security reimburses other state agencies for disaster-related expenditures from a centralized fund.

Based on our report findings, we also recommend commitment from high-level state policymakers—particularly governors and legislative leaders. Although state emergency management offices are the primary points of contact and the coordinating bodies for many disaster activities, they generally do not have authority to view or request spending information from other agencies. One state emergency

management staff member noted that gathering, evaluating, and consolidating data from multiple agencies would require support from within the governor's office.

And although having a champion within state government is essential for data collection at the individual state level, acquiring comparable spending data from all 50 states would probably need to be a coordinated national effort.

Miscellaneous Questions:

Question from Kathleen Koch: What can city and county leaders do to encourage their states to follow your advice and set aside more funds for both disaster mitigation and response? Also, what can they do to encourage greater flexibility in accessing those funds? Of the different ways states handle disaster budgeting, which works best?

Speaker response: Local governments also deal with diverse funding streams. Collecting and sharing that information with state policymakers could help communicate the need for more comprehensive tracking. Pew doesn't currently have any recommendations regarding funding flexibility. Our forthcoming research will inventory and catalog budgeting mechanisms, but not evaluate them.

Question from Edward Thomas: Are we considering tracking how much private individuals, companies, businesses and governments are spending due to enforcement of higher standards of construction designed to reduce disaster costs? Ditto on Spending on such preparedness as evacuation planning, drills and other actions designed to save lives and property?

Answer in the forum from Keith Porter: In response to Ed's question about the costs of complying with enhancements to building codes, Natural Hazard Mitigation Saves has estimated the costs of complying with building-code developments in the period 1990-2018. See the report for details, but on a ballpark basis, code developments for flood, wind, and earthquake have added on the order of 1 percent to construction costs to what would have been required in 1990. Current construction expenditures in the U.S. amount to about $1.3 trillion per year, so code enhancements have added about $13 billion per year of new construction, relative to codes of 1990.

Question from Shawn Strange: I arrived late to the webinar: Was the 2018 congressional $12 billion mitigation appropriation mentioned? What to do about the attitude among states, in light of this recent federal money to disaster-affected states (2015, 2016, Hurricane Harvey), that they don't have to invest so much in their own mitigation, just wait for federal disaster appropriations to come again?

Speaker response: Rising costs at the federal level have caught policymakers' attention. According to the Government Accountability Office, the federal government has spent $450 billion in disaster assistance since 2005. As a result, the federal government is looking at ways to manage its rising costs in ways that could affect how assistance is delivered to states. The federal government, through efforts like the National Mitigation Investment Strategy and the BRIC program, is also encouraging states to invest their own funds in mitigation. In this context, it's critical that states improve their understanding of the full universe of spending they are undertaking in terms of not only disaster response but also recovery, mitigation, and preparedness. That way, they can better assess the impact of potential federal changes. Additionally, states should review the current ways they budget for disasters, such as how they use rainy day funds, statewide disaster accounts, supplemental appropriations, transfer authority, or state agency budgets to cover costs.

Comments, Suggestions, or Questions for the Natural Hazard Center?

Please contact: katherine.murphy-1@colorado.edu.

Making Mitigation Work webinars and associated products are supported by the National Science Foundation (NSF Award #1635593) through a supplemental award from the Federal Emergency Management Agency (FEMA). Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of NSF, FEMA, or the Natural Hazards Center.