



Testimony
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Environment, Committee on Oversight
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EMERGENCY MANAGEMENT

FEMA Has Made Progress, but Challenges and Future Risks Highlight Imperative for Further Improvements

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GAO Highlights

Highlights of [GAO-19-617T](#), a testimony before the Subcommittee on Environment, Committee on Oversight and Reform, House of Representatives

Why GAO Did This Study

Recent hurricanes, wildfires, and flooding have highlighted the challenges the federal government faces in responding effectively to natural disasters. The 2017 and 2018 hurricanes and wildfires affected millions of individuals and caused billions of dollars in damages. In March 2019, the Midwest experienced historic flooding that affected millions of acres of agriculture and damaged significant infrastructure. Since 2005, federal funding for disaster assistance is at least \$450 billion. Increasing reliance on federal help to address natural disasters is a key source of federal fiscal exposure, particularly as certain extreme weather events become more frequent and intense due to climate change.

This statement discusses, among other things, FEMA's progress and challenges related to disaster resilience, response, recovery, and workforce management. This statement is based on GAO reports issued from March 2011 through May 2019, and also includes preliminary observations from ongoing GAO reviews of FEMA operations. For ongoing work, GAO reviewed federal laws; analyzed documents; interviewed agency officials; and visited disaster damaged areas in California, Florida, South Carolina, North Carolina, Puerto Rico, Texas, and the U.S. Virgin Islands, where GAO also interviewed FEMA and local officials.

What GAO Recommends

GAO has made numerous recommendations in its prior reports to FEMA designed to address the challenges discussed in this statement. As of May 2019, FEMA has addressed about half of these recommendations and GAO is monitoring FEMA's ongoing efforts.

View [GAO-19-617T](#). For more information, contact Chris Currie at (404) 679-1875 or curriec@gao.gov

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What GAO Found

GAO's issued and ongoing work identified progress and challenges in the Federal Emergency Management Agency's (FEMA) disaster resilience, response, recovery, and workforce management efforts, as discussed below.

Disaster Resilience. GAO found that federal and local efforts to improve resilience can reduce the effects and costs of future disasters. FEMA has made progress in this area, but in July 2015, GAO found that states and localities faced challenges using federal funds to maximize resilient rebuilding following a disaster. GAO recommended that the Mitigation Framework Leadership Group—an interagency body chaired by FEMA—create a national strategy to better plan for and invest in disaster resilience. FEMA is working to address this recommendation and plans to publish the strategy by July 2019.

Damage from Hurricane Michael in Florida and Wildfires in California



Source: GAO. | GAO-19-617T

Response and Recovery. In September 2018, GAO reported that the response to the 2017 disasters in Texas, Florida, and California showed progress since Hurricane Katrina in 2005. Specifically, FEMA and state officials' pre-existing relationships and exercises aided the response and helped address various challenges. However, GAO and FEMA identified challenges that slowed and complicated FEMA's response to Hurricane Maria, particularly in Puerto Rico. GAO's issued and ongoing work also identified challenges in implementing FEMA Public Assistance grants. For example, FEMA and Puerto Rico officials identified challenges with Public Assistance policies and guidance that have complicated and slowed the recovery. GAO did not make recommendations, but continues to evaluate recovery efforts and will report its findings later this year.

FEMA Workforce Management. GAO has previously reported on long-standing workforce management challenges, such as ensuring an adequately-staffed and trained workforce. For example, GAO reported in September 2018 that the 2017 disasters overwhelmed FEMA's workforce and a lack of trained personnel with program expertise led to complications in its response efforts, particularly after Hurricane Maria. While FEMA has taken actions to address several of GAO's workforce management-related recommendations since 2016, a number of recommendations remain open as the 2019 hurricane season begins. Also, GAO is currently reviewing FEMA's workforce management efforts and lessons learned from the 2017 disasters and will report its findings early next year.

Chairman Rouda, Ranking Member Comer and Members of the Subcommittee:

Thank you for the opportunity to discuss our work on the Federal Emergency Management Agency's (FEMA) disaster preparedness, response, and recovery operations. Recent hurricanes, wildfires, and other events have highlighted the challenges the federal government faces in responding effectively to natural disasters—both in terms of immediate response and long-term recovery efforts. According to FEMA's 2017 after action report, the 2017 hurricanes and wildfires collectively affected 47 million people, and hurricanes Harvey, Irma, and Maria all rank among the top five costliest hurricanes on record.¹ The 2018 hurricane season followed with hurricanes Florence and Michael, causing nearly \$50 billion of damage, according to the National Oceanic and Atmospheric Administration. Furthermore, the deadly and destructive wildfires continued into 2018, including the Camp Fire in northern California, which destroyed more than 18,500 buildings and was the costliest and deadliest wildfire in the state's history.² In March 2019, the Midwest experienced historic flooding that affected millions of acres of agriculture, numerous cities and towns, and caused widespread damage to public infrastructure. Collectively, these extreme weather events have stretched and strained federal response and recovery efforts and staff.

¹According to the *2017 Hurricane Season FEMA After-Action Report*, the National Oceanic and Atmospheric Administration identified the five costliest hurricanes on record being Hurricane Katrina at \$161 billion, Hurricane Harvey at \$125 billion, Hurricane Maria at \$90 billion, Hurricane Sandy at \$71 billion, and Hurricane Irma at \$50 billion.

²NOAA, *National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters* (2019). <https://www.ncdc.noaa.gov/billions/>

Hazard Mitigation Measures



Some examples of hazard mitigation measures are house elevation, metal roofs, and storm shutters.

Source: GAO; photos taken by GAO while on site in Florida. | GAO-19-617T

The rising number of natural disasters and increasing state, local, and tribal reliance on federal disaster assistance is a key source of federal fiscal exposure—which can come from federal responsibilities, programs, and activities, such as national flood insurance, that may legally commit or create the expectation for future spending.³ Since 2005, federal funding for disaster assistance is at least \$450 billion⁴, most recently for catastrophic hurricanes, flooding, wildfires, and other losses in 2017 and 2018.⁵ Disaster costs are projected to increase as extreme weather events become more frequent and intense due to climate change—as observed and projected by the U.S. Global Change Research Program and the National Academies of Sciences, Engineering, and Medicine.⁶

One way to save lives, reduce future risk to people and property, and minimize federal fiscal exposure from natural hazards is to enhance disaster resilience. For example, in September 2018, we reported that elevated homes and strengthened building codes in Texas and Florida prevented greater damages during the 2017 hurricane season.⁷ Furthermore, in October 2018, the DRRA was enacted, which focuses on

³GAO, *Fiscal Exposures: Improving Cost Recognition in the Federal Budget*, [GAO-14-28](#) (Washington, D.C.: Oct. 29, 2013).

⁴This total includes, for fiscal years 2005 through 2014, \$278 billion that GAO found that the federal government had obligated for disaster assistance. See GAO, *Federal Disaster Assistance: Federal Departments and Agencies Obligated at Least \$277.6 Billion during Fiscal Years 2005 through 2014*, [GAO-16-797](#) (Washington, D.C.: Sept. 22, 2016). It also includes, for fiscal years 2015 through 2018, \$124 billion in select supplemental appropriations to federal agencies for disaster assistance, approximately \$7 billion in annual appropriations to the Disaster Relief Fund (a total of \$28 billion for the 4-year period). For fiscal years 2015 through 2018, it does not include other annual appropriations to federal agencies for disaster assistance. Lastly, on June 6, 2019, the Additional Supplemental Appropriations for Disaster Relief Act of 2019 was signed into law, which provides approximately \$19.1 billion for disaster assistance. H.R. 2157, 116th Cong. (2019) (enacted).

⁵GAO, *High-Risk Series: Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas*, [GAO-19-157SP](#) (Washington, D.C.: Mar. 6, 2019).

⁶GAO, *Climate Change: Information on Potential Economic Effects Could Help Guide Federal Efforts to Reduce Fiscal Exposure*, [GAO-17-720](#) (Washington, D.C.: Sept. 28, 2017). Managing fiscal exposure due to climate change has been on our high risk list since 2013, in part, because of concerns about the increasing costs of disaster response and recovery efforts. See [GAO-19-157SP](#); also http://www.gao.gov/highrisk/limiting_federal_government_fiscal_exposure/why_did_study.

⁷GAO, *2017 Hurricanes and Wildfires: Initial Observations on the Federal Response and Key Recovery Challenges*, [GAO-18-472](#) (Washington, D.C.: Sept. 4, 2018).

improving preparedness, mitigation, response and recovery.⁸ Specifically, the DRRRA contains provisions that address many areas of emergency management, including wildfire mitigation, public assistance, and individual assistance, among others.

My testimony today discusses our prior and ongoing work on FEMA's progress and continued challenges in four key areas: (1) resilience and preparedness, (2) response, (3) recovery, and (4) selected FEMA management issues. My statement today is based on products we issued from March 2011 through May 2019, along with preliminary observations from our ongoing reviews on federal disaster preparedness, response, recovery, and FEMA management issues for a number of congressional committees and subcommittees.⁹ To perform our prior work, we reviewed federal laws related to emergency management, analyzed FEMA documentation, and interviewed relevant agency officials. More detailed information on the scope and methodology for our prior work can be found in each of the issued reports listed in Enclosure I. To develop our preliminary observations from ongoing work, we reviewed federal laws such as the DRRRA, and analyzed FEMA documents, including policies, procedures, and guidance specific to emergency management. Moreover, we conducted site visits to areas throughout the nation that were affected by disasters in 2017, 2018, and 2019, including California, Florida, North Carolina, South Carolina, Puerto Rico, Texas, and the U.S. Virgin Islands (USVI). During these visits, we met with federal, state, territorial, and local government and emergency management officials to discuss disaster response and recovery efforts for hurricanes Harvey, Irma, and Maria in 2017, the California wildfires, and hurricanes Florence and Michael in 2018. See the list of our ongoing reviews in Enclosure II.

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 that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

⁸Pub. L. No. 115-254, div. D, 132 Stat. 3186, 3438-70 (2018).

⁹Our ongoing work is for the House Committee on Homeland Security, House Committee on Oversight and Government Reform, the Senate Homeland Security and Governmental Affairs Committee, and seven additional committees and subcommittees, and four individual members.

FEMA Has Taken Steps to Strengthen Disaster Resilience and Preparedness, but Additional Steps are Needed to Fully Address Remaining Challenges

We have previously reported on various aspects of national preparedness, including examining the extent to which FEMA programs encourage disaster resilience and identifying gaps in federal preparedness capabilities. We have found that when federal, state, and local efforts aligned to focus on improving disaster resilience and preparedness, there was a noticeable reduction in the effects of the disaster. However, our prior and ongoing work also highlight opportunities to improve disaster resilience and preparedness nationwide.¹⁰

Disaster Resilience

Hazard mitigation is a key step in building resilience and preparedness against future disasters.¹¹ In July 2015, we found that states and localities experienced challenges when trying to use federal funds to maximize resilient rebuilding in the wake of a disaster.¹² In particular, they had difficulty navigating multiple federal grant programs and applying federal resources towards their most salient risks because of the fragmented and reactionary nature of the funding.¹³ In our 2015 report, we recommended that the Mitigation Framework Leadership group—an interagency body chaired by FEMA—create a National Mitigation Investment Strategy to help federal, state, and local officials plan for and prioritize disaster resilience. As of May 2019, according to FEMA officials, the Mitigation Framework Leadership group is on track to address the recommendation, and they expect the strategy to be published by July 2019.

¹⁰For example, see: GAO, *Hurricane Sandy: An Investment Strategy Could Help the Federal Government Enhance National Resilience for Future Disasters*, [GAO-15-515](#) (Washington, D.C.: July 30, 2015); *Emergency Preparedness: Opportunities Exist to Strengthen Interagency Assessments and Accountability for Closing Capability Gaps*, [GAO-15-20](#) (Washington, D.C.: Dec. 4, 2014); and [GAO-18-472](#).

¹¹FEMA's 2018-2022 Strategic Plan states that the most successful way to achieve disaster resilience is through preparedness, including mitigation.

¹²[GAO-15-515](#).

¹³[GAO-15-515](#). A provision of DRRRA also created a grant in the Disaster Relief Fund for pre-disaster hazard mitigation. DRRRA authorized the President to set aside 6 percent of the total grant awards for the Individual Assistance and Public Assistance programs (each discussed later in this statement) for each declared disaster to be used for pre-disaster hazard mitigation. From May 20 through July 15, 2019, FEMA is collecting public comment on the implementation of this provision through a program it has named the Building Resilient Infrastructure and Communities grant. 42 U.S.C. § 5133(i).

In September 2017, we reported that the methods used to estimate the potential economic effects of climate change in the United States—using linked climate science and economics models—could inform decision makers about significant potential damages in different U.S. sectors or regions, despite the limitations.¹⁴ For example, for 2020 through 2039, one study estimated between \$4 billion and \$6 billion in annual coastal property damages from sea level rise and more frequent and intense storms. We found that the federal government has not undertaken strategic government-wide planning on the potential economic effects of climate change to identify significant risks and craft appropriate federal responses. As a result, we recommended the Executive Office of the President, among others, should use information on the potential economic effects of climate change to help identify significant climate risks facing the federal government and craft appropriate federal responses, such as establishing a strategy to identify, prioritize, and guide federal investments to enhance resilience against future disasters; however, as of June 2019, officials have not taken action to address this recommendation.

In November 2017, we found that FEMA had taken some actions to better promote hazard mitigation as part of its Public Assistance grant program.¹⁵ However, we also reported that more consistent planning for, and more specific performance measures related to, hazard mitigation could help ensure that mitigation is incorporated into recovery efforts.¹⁶ We recommended, among other things, that FEMA (1) standardize planning efforts for hazard mitigation after a disaster and (2) develop performance measures for the Public Assistance grant program to better align with FEMA’s strategic goal for hazard mitigation in the recovery process. FEMA concurred with our recommendations, and as of March 2019, officials have reported taking steps to increase coordination across its Public Assistance, mitigation, and field operations to ensure hazard mitigation efforts are standardized and integrated into the recovery process. Additionally, FEMA officials reported taking actions to begin

¹⁴[GAO-17-720](#).

¹⁵In addition to rebuilding and restoring infrastructure to its pre-disaster state, the Public Assistance program, under Section 406 of the Stafford Act, funds mitigation measures that will reduce future risk to the infrastructure in conjunction with the repair of disaster-damaged facilities. 42 U.S.C. § 5172.

¹⁶GAO, *Disaster Assistance: Opportunities to Enhance Implementation of the Redesigned Public Assistance Grant Program*, [GAO-18-30](#) (Washington, D.C.: Nov. 8, 2017).

developing disaster-specific mitigation performance measures. However, FEMA has yet to finalize these actions, such as by proposing performance measures to FEMA senior leadership. As such, we are continuing to monitor FEMA's efforts to address these recommendations.

Disaster Preparedness

In March 2011, we reported that FEMA had not completed a comprehensive and measurable national preparedness assessment of capability gaps—for example the amount of resources required to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.¹⁷ Developing such an assessment would help FEMA to identify what capability gaps exist and what level of resources are needed to close such gaps. Accordingly, we suggested that FEMA complete a national preparedness assessment to evaluate capability requirements and gaps at each level of government to enable FEMA to prioritize grant funding.¹⁸ As of December 2018, FEMA had efforts underway to assess urban area, state, territory, and tribal preparedness capabilities to inform the prioritization of grant funding; however, the agency had not yet completed a national preparedness assessment with clear, objective, and quantifiable capability requirements against which to assess preparedness. We are continuing to monitor FEMA's efforts to complete such an assessment.

Furthermore, in March 2015, we reviewed selected states' approaches to budgeting for disaster costs to help inform congressional consideration of the balance between federal and state roles in funding disaster assistance. Specifically, we reported that none of the 10 states in our review maintained reserves dedicated solely for future disasters, and some state officials reported that they could cover disaster costs without dedicated disaster reserves because they generally relied on the federal government to fund most of the costs associated with disaster response and recovery.¹⁹

¹⁷GAO, *Opportunities to Reduce Potential Duplication in Government Programs Save Tax Dollars and Enhance Revenue*, [GAO-11-318SP](#) (Washington, D.C.: Mar. 1, 2011).

¹⁸[GAO-11-318SP](#).

¹⁹GAO, *Budgeting for Disasters: Approaches to Budgeting for Disasters in Selected States*, [GAO-15-424](#) (Washington, D.C.: Mar. 26, 2015). The 10 states in our review were Alaska, California, Florida, Indiana, Missouri, New York, North Dakota, Oklahoma, Vermont, and West Virginia.

In response to the 2017 disasters, we also have ongoing work to review national preparedness capabilities to assist communities in responding to and recovering from disasters. Based on our preliminary observations, some states and localities we interviewed reported that while they are prepared to deal with immediate response issues in the aftermath of a disaster, gaps exist in their capacity to support longer term recovery. One reason for this, according to these state and local officials, is because federal preparedness grant funds are largely dedicated to maintaining response capabilities and sustaining personnel costs for local emergency management officials. While these preparedness grants fund critical elements of the national preparedness system, there are some limitations to using them. Specifically, some state and local officials told us that the preparedness grant activities are generally focused on terrorism issues rather than all-hazards. In addition, they reported that the preparedness grants are generally spent on maintaining response capabilities rather than to enhance their capacity for disaster recovery—such as additional training and exercises. In addition to the state, territory, and urban region assessments that FEMA is conducting, FEMA is currently in the process of developing the first national Threat and Hazard Identification and Risk Assessment. This national assessment may help FEMA and policymakers better understand how to target federal resources in a way that enhances the nation’s capacity to respond and recover from future catastrophic or sequential disasters. We are continuing to evaluate national preparedness efforts and plan to report on FEMA’s Threat and Hazard Identification and Risk Assessment process in January 2020.

**FEMA’s Response to
the 2017 Disasters
Highlighted Some
Areas of Progress,
But also Identified
Significant
Weaknesses**

FEMA's Response to the 2017 Disasters

In September 2018, we reported that the response to the 2017 hurricanes and wildfires in Texas, Florida, and California showed progress made since the 2005 federal response to Hurricane Katrina.²⁰ We also found that FEMA coordinated closely with Texas, Florida, and California emergency management officials and other federal, local, and volunteer emergency partners to implement various emergency preparedness actions prior to the 2017 disasters in each state, and to respond to these disasters. According to FEMA and state officials, these actions helped officials begin addressing a number of challenges they faced such as meeting the demand for a sufficient and adequately-trained disaster workforce and complex issues related to removing debris in a timely manner after the hurricanes and wildfires.

In contrast, we also reported in September 2018, that in Puerto Rico and the USVI a variety of challenges—such as the far distance of the territories from the U.S. mainland, limited local preparedness for a major hurricane, and outdated local infrastructure—complicated response efforts to hurricanes Irma and Maria. Many of the challenges we identified are also described in *FEMA's 2017 Hurricane Season FEMA After-Action Report*, including:

- the sequential and overlapping timing of the three hurricanes—with Maria being the last of the three—caused staffing shortages and required FEMA to shift staff to the territories that were already deployed to other disasters;
- the far distance of both territories from the U.S. mainland complicated efforts to deploy federal resources and personnel quickly; and
- the incapacitation of local response functions due to widespread devastation and loss of power and communications, and limited preparedness by Puerto Rico and the USVI for a category 5 hurricane resulted in FEMA having to assume response functions that territories would usually perform themselves.

We also reported that *FEMA's 2017 Hurricane Season FEMA After-Action Report* noted that FEMA could have better leveraged information from preparedness exercises in the Caribbean, including a 2011 exercise after-action report for Puerto Rico which indicated that the territory would require extensive federal support during a large scale disaster in moving

²⁰[GAO-18-472](#).

commodities from the mainland to the territory and to distribution points throughout.

In our September 2018 report, we also found that FEMA's efforts in Puerto Rico after Hurricane Maria were the largest and longest single response in the agency's history. According to FEMA, the agency's response included, among other things, bringing in approximately \$1 billion in food and supplies; and distributing food, commodities, and medicine via approximately 1,400 flights, which constituted the longest sustained air operations in U.S. disaster history.²¹ FEMA officials explained that the agency essentially served as the first responder in the early response efforts in Puerto Rico, and many of services FEMA provided—such as power restoration, debris removal, and commodity distribution—were typically provided by territorial or local governments.

We also reported in September 2018, that in the USVI, recent disaster training and the pre-positioning of supplies due to the anticipated impact of Hurricane Irma facilitated the response efforts for Hurricane Maria, which made landfall less than two weeks later. According to FEMA's federal coordinating officer, the lead federal official in charge of response for the USVI, the federal government deployed assets, including urban search and rescue teams and medical assistance teams. In addition, due to the sequence of Hurricane Irma hitting the USVI immediately before Hurricane Maria, the Department of Defense (DOD) already had personnel and resources (i.e., ships) deployed to the area, which enabled DOD to respond to Hurricane Maria faster than it otherwise would have.

Additional challenges we have reported on regarding response operations have included providing short-term housing and sheltering for disaster survivors. The Department of Homeland Security's (DHS) *2017 National Preparedness Report* states that providing effective and affordable short-term housing for disaster survivors has been a longstanding and continuing challenge.²² For example, following the California wildfires, local officials faced challenges identifying shelter for displaced survivors, in part due to a housing shortage that existed before the wildfires. Federal, state, and local officials formed housing task forces which facilitated a joint decision-making approach to address these challenges.

²¹[GAO-18-472](#).

²²Department of Homeland Security (DHS), *National Preparedness Report* (Washington, D.C.: Aug. 28, 2017).

While this approach has enabled the state to meet its most pressing short-term housing needs, according to FEMA officials, the state faces other challenges in the long term.²³ For example, FEMA officials in the region covering California told us that because of the nature of damage following a wildfire and because of housing shortages in California, some of FEMA's forms of housing assistance have been less relevant in the wake of the California wildfires than for other disasters. We will continue to evaluate these and other challenges and plan to report in fall 2019.

We also have ongoing work to review efforts to provide mass care—which includes sheltering, feeding and providing emergency supplies—following the 2017 hurricanes. Our preliminary observations indicate that during and immediately following the hurricanes, the number of people seeking public shelters outpaced the capacity. In Texas and Florida, emergency managers we spoke with described having unprecedented numbers of residents needing shelters but not always enough staff initially to operate the shelters. In Texas, Puerto Rico, and the USVI, hurricanes Harvey, Irma, and Maria flooded or destroyed many buildings planned for use as shelters, according to emergency management and local government officials in these areas. As a result, some remaining shelters were at maximum capacity. In the USVI, residents of some public housing units that had sustained significant damages sought help at the territory's Department of Human Services because there was no more space in the shelters, according to local government officials. While they were turned away from the shelters, these families were able to take refuge in the lobby of the Department of Human Services building. We will continue to evaluate these and other challenges and plan to report in summer 2019.

FEMA Disaster Contracting

In December 2018²⁴ and April 2019²⁵, we reported that, in response to hurricanes Harvey, Irma, and Maria, as well as the 2017 California wildfires, FEMA and other federal partners relied heavily on advance contracts—which are established before a disaster to provide for life-sustaining goods and services such as food, water and transportation

²³[GAO-18-472](#).

²⁴GAO, *2017 Disaster Contracting: Action Needed to Better Ensure More Effective Use and Management of Advance Contracts*, [GAO-19-93](#), (Washington, D.C: Dec. 6, 2018).

²⁵GAO, *2017 Disaster Contracting: Actions Needed to Improve the Use of Post-Disaster Contracts to Support Response and Recovery*, [GAO-19-281](#), (Washington, D.C: April 24, 2019). The post-disaster contracts discussed in this report may support both response and early recovery activities.

typically needed immediately after a disaster—and post disaster contracts—which can be used for various goods and services, such as debris removal and installation of power transmission equipment.

FEMA is required to coordinate with states and localities and encourage them to establish their own advance contracts with vendors.²⁶ In December 2018, we reported on inconsistencies we found in that coordination and in the information FEMA used to coordinate with states and localities on advance contracts. As a result of this and other challenges identified, we made nine recommendations to FEMA, including that it update its strategy and guidance to clarify the use of advance contracts, improve the timeliness of its acquisition planning activities, revise its methodology for reporting disaster contracting actions to Congress, and provide more consistent guidance and information for contracting officers in coordinating with states and localities to establish advance contracts. FEMA concurred with all of these recommendations, and we are continuing to monitor its efforts to implement each recommendation.

Furthermore, in April 2019, we reported on challenges that we found in the federal government’s use of post-disaster contracts. These challenges included a lack of transparency about contract actions, challenges with requirements development, and with interagency coordination. In our report, we found that FEMA had begun taking some steps to address the consistency of post-disaster contract requirements with contracting officers, but that inaccurate or untimely estimates in the contracts we reviewed sometimes resulted in delays meeting the needs of survivors. As a result of our findings in this report, we made 10 recommendations to FEMA and other federal agencies that use these post-disaster contracts related to improving the management of such contracts. FEMA and other agency officials concurred with nine of the recommendations and have reported taking actions to begin

²⁶The Post-Katrina Emergency Management Reform Act of 2006 (Post-Katrina Act) required FEMA to establish advance contracts Pub. L. No. 109-295, § 691, 120 Stat. 1355 (codified at 6 U.S.C. § 791).

implementing them.²⁷ We will continue to monitor FEMA's progress in fully addressing these recommendations.

FEMA Provides Long Term Disaster Recovery Support, but State and Local Officials Cited Continued Challenges Managing Complex Recovery Assistance Programs

FEMA provides multiple forms of disaster recovery assistance after a major disaster has been declared, including Public Assistance and Individual Assistance.²⁸ Through these grant programs, FEMA obligates billions of dollars to state, tribal, territorial, and local governments, certain nonprofit organizations, and individuals that have suffered injury or damages from major disaster or emergency incidents, such as hurricanes, tornados, or wildfires. In September 2016, we reported that, from fiscal years 2005 through 2014, FEMA obligated almost \$46 billion for the Public Assistance program and over \$25 billion for the Individual Assistance program.²⁹ According to FEMA's May 2019 Disaster Relief Fund report, total projected obligations through fiscal year 2019 for the Public Assistance and Individual Assistance programs for just the 2017 hurricanes—Harvey, Irma, and Maria—are roughly \$16 billion and \$7 billion, respectively.³⁰ Given the high cost of these programs, it is imperative that FEMA continue to make progress on the challenges we have identified in our prior and ongoing work regarding its recovery efforts.

FEMA Public Assistance Grants for Disaster Recovery

²⁷DHS did not concur with our recommendation that DHS reopen the national interest action codes used to track data on post-disaster contracts involved in responding to the 2017 and 2018 hurricanes. These codes can provide government-wide insight into response and recovery efforts; however, DHS closed the codes for hurricanes Harvey and Irma less than a year after the hurricanes hit. In contrast, the codes for prior hurricanes were open for at least 5 years, with the code for Hurricane Katrina remaining open for 13 years. We continue to believe DHS should implement our recommendation, to the extent practicable, as discussed in the report.

²⁸In addition, FEMA's Hazard Mitigation Grant Program provides additional funds to states to assist communities in implementing long-term measures to help reduce the potential risk of future damages to facilities.

²⁹[GAO-16-797](#).

³⁰DHS, FEMA, *Disaster Relief fund: Monthly Report as of April 30, 2019*, (May 8, 2019).

FEMA's Public Assistance Program



FEMA's Public Assistance program provides grants to repair public infrastructure such as water storage systems, roads, and power lines.

Source: GAO; Photos taken by GAO while on site in Florida. | GAO-19-617T

FEMA's Public Assistance program provides grants to state, tribal, territorial, and local governments for debris removal; emergency protective measures; and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities. It is a complex and multistep program administered through a partnership among FEMA, the state, and local officials. Prior to implementing the Public Assistance program, FEMA determines a state, territorial or tribal government's eligibility for the program using the per capita damage indicator.³¹ In our September 2018 report on federal response and recovery efforts for the 2017 hurricanes and wildfires, we reported on FEMA's implementation of the Public Assistance program, which has recently undergone significant changes as a result of federal legislation and agency initiatives. Specifically, we reported on FEMA's use of its redesigned delivery model for providing grants under the Public Assistance program, as well as the alternative procedures for administering or receiving such grant funds that FEMA allows states, territories, and local governments to use for their recovery.³² Our prior and ongoing work highlights both progress and challenges with FEMA's Public Assistance program, including the agency's methodology for determining program eligibility, the redesigned delivery model, and the program's alternative procedures.

³¹The per capita indicator is a set amount of funding, \$1.50 per capita in fiscal year 2019, that is multiplied by the population of the jurisdiction (for example, state) for which the governor is requesting a disaster declaration for Public Assistance, to arrive at a threshold amount, which is compared with the estimated amount of damage done to public structures.

³²[GAO-18-472](#). The Sandy Recovery Improvement Act of 2013 amended the Stafford Act by adding Section 428, which authorized FEMA to approve Public Assistance program projects under the alternative procedures provided by that section for any presidentially-declared major disaster or emergency. This section further authorized FEMA to carry out the alternative procedures as a pilot program until FEMA promulgates regulations to implement this section. Pub. L. No. 113-2, div. B, § 1102(2), 127 Stat. 39, amending Pub. L. No. 93-288, tit. IV, § 428 (codified as amended at 42 U.S.C. § 5189f).

Criteria for Determining Public Assistance Eligibility

In September 2012, we found that FEMA primarily relied on a single criterion, the per capita damage indicator, to determine a jurisdiction's eligibility for Public Assistance funding.³³ However, because FEMA's current per capita indicator, set at \$1 in 1986, does not reflect the rise in (1) per capita personal income since it was created in 1986 or (2) inflation from 1986 to 1999, the indicator is artificially low. Our analysis of actual and projected obligations for 508 disaster declarations in which Public Assistance was awarded during fiscal years 2004 through 2011 showed that fewer disasters would have met either the personal income-adjusted or the inflation-adjusted Public Assistance per capita indicators for the years in which the disaster was declared.³⁴ Thus, had the indicator been adjusted annually since 1986 for personal income or inflation, fewer jurisdictions would have met the eligibility criteria that FEMA primarily used to determine whether federal assistance should be provided, which would have likely resulted in fewer disaster declarations and lower federal costs.

We recommended, among other things, that FEMA develop and implement a methodology that more comprehensively assesses a jurisdiction's capacity to respond to and recover from a disaster without federal assistance, including fiscal capacity and consideration of response and recovery capabilities. DHS concurred with our recommendation and, in January 2016, FEMA was considering establishing a disaster deductible, which would have required a predetermined level of financial or other commitment before FEMA would have provided assistance under the Public Assistance program. In August 2018, FEMA told us that it was no longer pursuing its proposed disaster deductible due to concerns about the complexity of the proposal. FEMA is considering options that leverage similar approaches, but does not have an estimated completion date for implementation. In addition, the DRRA requires FEMA to initiate rulemaking to (1) update the factors considered when evaluating requests for major disaster declarations, including reviewing how FEMA estimates the cost of major disaster assistance, and

³³GAO, *Federal Disaster Assistance: Improved Criteria Needed to Assess a Jurisdiction's Capacity to Respond and Recover on Its Own*, [GAO-12-838](#) (Washington, D.C.: Sept. 12, 2012).

³⁴Specifically, our analysis showed that 44 percent of the 508 disaster declarations would not have met the Public Assistance per capita indicator if adjusted for the change in per capita personal income since 1986. Similarly, our analysis showed that 25 percent of the 508 disaster declarations would not have met the Public Assistance per capita indicator if adjusted for inflation since 1986.

(2) consider other impacts on the capacity of a jurisdiction to respond to disasters, by October 2020. Until FEMA implements a new methodology, the agency will not have an accurate assessment of a jurisdiction's capabilities and runs the risk of recommending that the President award Public Assistance to jurisdictions that have the capacity to respond and recover on their own.

Redesigned Public Assistance
Delivery Model

Prior to our September 2018 report, we had previously reported on the Public Assistance program in November 2017. Specifically, we reported that FEMA redesigned the delivery model for providing grants under the Public Assistance program.³⁵ As part of the redesign effort, FEMA developed a new, web-based case management system to address past challenges, such as difficulties in sharing grant documentation among FEMA, state, and local officials and tracking the status of Public Assistance projects. Both FEMA and state officials involved in testing of the redesigned delivery model stated that the new case management system's capabilities could lead to greater transparency and efficiencies in the program. However, we found that FEMA had not fully addressed two key information technology management controls that are necessary to ensure systems work effectively and meet user needs. We recommended, among other things, that FEMA (1) establish controls for tracking the development of system requirements, and (2) establish system testing criteria, roles and responsibilities, and the sequence and schedule for integration of other relevant systems. FEMA concurred with these recommendations and has fully implemented the first recommendation. Regarding the second recommendation, FEMA has not yet finalized its decision on whether to integrate its new case management system with its current grants management system. As of March 2019, we are awaiting a final decision from officials to determine whether their actions fully address our recommendation.

FEMA's original intention was to implement the redesigned delivery model for all future disasters beginning in January 2018. However, in September 2017, FEMA expedited full implementation of the redesigned model shortly after Hurricane Harvey made landfall. In September 2018, we reported that local officials continued to experience challenges with using the new Public Assistance web-based, case management system following the 2017 disasters, such as not having sufficient guidance on

³⁵GAO, *Disaster Assistance: Opportunities to Enhance Implementation of the Redesigned Public Assistance Grant Program*, [GAO-18-30](#) (Washington, D.C.: Nov. 8, 2017).

Public Assistance Alternative
Procedures in the United
States Virgin Islands and
Puerto Rico

how to use the new system and delays with FEMA's processing of their projects.³⁶

In February 2019, we also reported that FEMA and the USVI were transitioning from using the standard Public Assistance program to using Public Assistance alternative procedures.³⁷ FEMA and USVI officials stated that the alternative procedures will give the USVI more flexibility in determining when and how to fund projects and allow the territory to use any excess funds for cost-effective hazard mitigation measures, among other uses. Further, when using the alternative procedures, the Bipartisan Budget Act of 2018 allows FEMA, the USVI and Puerto Rico to repair and rebuild critical services infrastructure—such as medical and education facilities—so it meets industry standards without regard to pre-disaster condition (see Figure 1).³⁸

³⁶[GAO-18-472](#).

³⁷Under the standard Public Assistance program, FEMA will fund the actual cost of a project. However, the Public Assistance alternative procedures allow recipient governments to choose to receive awards for permanent work projects based on fixed cost estimates, which can provide financial incentives for the timely and cost-effective completion of work. GAO, *U.S. Virgin Islands Recovery: Status of FEMA Public Assistance Funding and Implementation*, [GAO-19-253](#) (Washington, D.C.: Feb. 25, 2019).

³⁸The Bipartisan Budget Act of 2018 authorized FEMA, when using the Public Assistance alternative procedures, to provide assistance to fund the replacement or restoration of disaster-damaged infrastructure that provide critical services to industry standards without regard to pre-disaster condition. Pub. L. No. 115-123, § 20601(1), 132 Stat. 64 (2018). Critical services include public infrastructure in the following sectors: power, water, sewer, wastewater treatment, communications, education, and emergency medical care. See 42 U.S.C. § 5172(a)(3)(B). Section 20601 applies only to assistance provided through the Public Assistance alternative procedures program for the duration of the recovery for the major disasters declared in Puerto Rico and the USVI following hurricanes Irma and Maria. Further, the Additional Supplemental Appropriations for Disaster Relief Act of 2019, which was signed into law on June 6, 2019, provides additional direction to FEMA in the implementation of section 20601. See H.R. 2157, 116th Cong. § 601 (2019) (enacted). For the purposes of our report, discussion of the Bipartisan Budget Act of 2018 refers specifically to section 20601.

Figure 1: Hurricane Damage to a Hospital in the U.S. Virgin Islands and School in Puerto Rico



Damaged structure and ventilation system of the Governor Juan F. Luis Hospital and Medical Center in St. Croix, U.S. Virgin Islands.

Classroom with molded floors and water damage on the walls at the Berwind Intermediate School in San Juan, Puerto Rico.

Source: GAO; photos taken by GAO while on site in the U.S. Virgin Islands and Puerto Rico. | GAO-19-617T

Regarding the implementation of the Public Assistance program in Puerto Rico, in March 2019, we reported that Puerto Rico established a central recovery office to oversee federal recovery funds and was developing an internal controls plan to help ensure better management and accountability of the funds.³⁹ In the interim, FEMA instituted a manual process for reviewing each reimbursement request before providing Public Assistance funds to mitigate risk and help ensure financial accountability. We also reported that officials we interviewed from FEMA, Puerto Rico's central recovery office, and municipalities said they experienced initial challenges with the recovery process, including concerns about lack of experience and knowledge of the alternative procedures; concerns about missing, incomplete, or conflicting guidance on the alternative procedures; and concerns that municipalities had not been fully reimbursed for work already completed after the hurricanes, causing financial hardships in some municipalities.⁴⁰ FEMA officials

³⁹GAO, *Puerto Rico Hurricanes: Status of FEMA Funding, Oversight, and Recovery Challenges*, [GAO-19-256](#) (Washington, D.C.: March 14, 2019).

⁴⁰[GAO-19-256](#).

stated that the agency is taking actions to address reported recovery challenges, such as additional training for new FEMA employees and drafting supplemental guidance for the alternative procedures process. We continue to monitor FEMA's efforts in our ongoing work.

As part of our ongoing work, we are continuing to examine hurricane recovery efforts in the USVI and Puerto Rico. Our preliminary observations indicate that the USVI plans to take a cautious approach in pursuing permanent work projects using the Public Assistance alternative procedures program, which requires the use of fixed-cost estimates. Specifically, USVI officials we interviewed told us that developing such fixed-cost estimates that accurately incorporate the future impact of inflation and increases in materials and labor costs for certain projects was difficult. Further, these officials stated that since the territory is financially responsible for any costs that exceed these fixed-cost estimates, the USVI plans to pursue projects that do not include high levels of complexity or uncertainty to reduce the risk of cost overruns.⁴¹

From our ongoing work on Puerto Rico's recovery efforts, we have learned that, in March 2019, Puerto Rico's central recovery office released the Disaster Recovery Federal Funds Management Guide, including an internal controls plan for the operation of the recovery office. On April 1, 2019, FEMA removed the manual reimbursement process and began a transition to allow the central recovery office to take responsibility for review and reimbursement approval of federal recovery funds. We will review this transition process as a part of our ongoing work. Our preliminary observations also indicate that some of the challenges we reported in our March 2019 report continue. For example, officials from Puerto Rico's central government agencies told us they did not feel they had sufficient guidance on the FEMA Public Assistance program and where they did, written and verbal FEMA guidance was inconsistent or conflicting. For example, officials from one agency expressed their desire for more FEMA guidance communicated in writing as it frequently happened that different FEMA officials would interpret existing guidance differently. Similarly, officials from two agencies described situations where they had initially been directed to follow one interpretation of a policy, only to be directed to follow a different, conflicting interpretation in the subsequent months. Puerto Rico agency officials also stated that the

⁴¹Under the standard Public Assistance program, FEMA will reimburse the USVI for the actual cost of completed work for any given project.

lack of sufficient instruction led to a “back and forth” with FEMA for clarifications, which led to delays in the phases of project development. FEMA officials in Puerto Rico stated that the agency has developed specific guidance for disaster recovery in Puerto Rico and that there are various ways, such as in-person meetings, where officials from Puerto Rico can obtain clarification. We are continuing to examine this issue as part of our ongoing review of Puerto Rico’s recovery.

In addition, our preliminary observations from our ongoing work for both the USVI and Puerto Rico indicate that FEMA, USVI and Puerto Rico officials have reported challenges with the implementation of the flexibilities authorized by section 20601 of the Bipartisan Budget Act. This section of the Act allows for the provision of assistance under the Public Assistance alternative procedures to restore disaster-damaged facilities or systems that provide critical services to an industry standard without regard to pre-disaster condition. Officials from Puerto Rico’s central government stated that they disagreed with FEMA’s interpretation of the types of damages covered by section 20601 of the Bipartisan Budget Act of 2018. In response, FEMA officials in Puerto Rico stated they held several briefings with Puerto Rico’s central recovery office to explain FEMA’s interpretation of the section.⁴² Further, FEMA officials in the USVI told us that initially, they had difficulty obtaining clarification from FEMA headquarters regarding how to implement key components of section 20601 of the Act. As of May 2019, FEMA officials in the USVI stated that they continue to move forward with developing alternative procedures projects. USVI officials also told us that FEMA had been responsive and helpful in identifying its options for using the new authorities the Act provides. We will continue to evaluate these identified challenges and any efforts to address them, as well as other aspects of recovery efforts in the USVI and Puerto Rico, and plan to report our findings in late 2019 and early 2020, respectively.

FEMA Individual Assistance

⁴²In September 2018, FEMA issued guidance for implementing section 20601 of the 2018 Bipartisan Budget Act of 2018 through the Public Assistance alternative procedures program.

FEMA's Individuals and Households Program



FEMA's Individuals and Households Program provides individuals with financial assistance, such as grants to help repair or replace damaged homes, and temporary direct housing assistance, such as recreational vehicles.

Source: GAO; photos taken by GAO while on site in California (top) and Florida (below). | GAO-19-617T

The Individual Assistance program provides financial and direct assistance to disaster victims for expenses and needs that cannot be met through other means, such as insurance. In May 2019, we reported on FEMA's effort to provide disaster assistance under the Individual Assistance program to older adults and people with disabilities following the 2017 hurricanes.⁴³ We found that aspects of the application process for FEMA assistance were challenging for older individuals and those with disabilities. Further, according to stakeholders and FEMA officials, disability-related questions in the Individual Assistance registration materials were confusing and easily misinterpreted. While FEMA had made some efforts to help registrants interpret the questions, we recommended, among other things, that FEMA (1) implement new registration-intake questions that improve FEMA's ability to identify and address survivors' disability-related needs,⁴⁴ and (2) improve communication of registrants' disability-related information across FEMA programs. DHS concurred with the first recommendation and described steps FEMA plans to take, or is in the process of taking, to address it. However, DHS did not concur with the second recommendation, noting that it lacks specific funding to augment its legacy data systems. FEMA officials stated that they began a long-term data management improvement initiative in April 2017, which they expect will ease efforts to share and flag specific disability-related data. While we acknowledge FEMA's concerns about changing legacy systems when it has existing plans to replace those systems, we continue to believe there are other cost-effective ways that are likely to improve communication of registrants' disability-related information prior to implementing the system upgrades. For example, FEMA could revise its guidance to remind program officials to review the survivor case file notes to identify whether there is a record of any disability-related needs.

We also have work underway to assess FEMA's Individuals and Households Program, a component program of Individual Assistance. Through this program, as of April 2019, FEMA had awarded roughly \$4.7

⁴³GAO, *Disaster Assistance: FEMA Action Needed to Better Support Individuals Who Are Older or Have Disabilities*, [GAO-19-318](#) (Washington, D.C.: May 14, 2019).

⁴⁴For the purposes of this report, we used the term "disability-related needs" broadly to include all needs individuals may have that are related to a disability or access or functional need. For example, this may include replacement of a damaged wheelchair or other durable medical equipment, fixing an accessible ramp to a house, or any needed assistance to perform daily activities—such as showering, getting dressed, walking, and eating.

billion in assistance to almost 1.8 million individuals and households for federally-declared disasters occurring in 2017 and 2018. Specifically, we are analyzing Individuals and Households Program expenditures and registration data for recent years; reviewing FEMA's processes, policies, and procedures for making eligibility and award determinations; and examining survivors' reported experiences with this program, including any challenges, for major disaster declarations occurring in recent years. We plan to report our findings in early 2020.

Longstanding
Workforce
Management and
Information
Technology
Challenges
Exacerbate Key
Issues with Response
and Recovery
Operations

FEMA Workforce
Management Challenges

FEMA's experiences during the 2017 disasters highlight the importance of continuing to make progress on addressing the long-standing workforce management challenges we have previously reported on and continue to observe in our ongoing work. In September 2018, we reported that the 2017 disasters—hurricanes Harvey, Irma, and Maria, as well as the California wildfires—resulted in unprecedented FEMA workforce management challenges, including recruiting, maintaining, and deploying a sufficient and adequately-trained FEMA disaster workforce.⁴⁵ FEMA's available workforce was overwhelmed by the response needs caused by the sequential and overlapping timing of the three hurricanes. For example, at the height of FEMA workforce deployments in October 2017, 54 percent of staff were serving in a capacity in which they did not hold the title of "Qualified"—according to FEMA's qualification system

⁴⁵[GAO-18-472](#).

standards—a past challenge we identified. FEMA officials noted that staff shortages, and lack of trained personnel with program expertise led to complications in its response efforts, particularly after Hurricane Maria.

In February 2016, we reported on, among other things, FEMA’s efforts to implement, assess, and improve its Incident Management Assistance Team program.⁴⁶ We found that while FEMA used some leading practices in managing the program, it lacked a standardized plan to ensure that all national and regional Incident Management Assistance Team members received required training. Further, we found that the program had experienced high attrition since its implementation in fiscal year 2013. We recommended, among other things, that FEMA develop (1) a plan to ensure that Incident Management Assistance Teams receive required training, and (2) a workforce strategy for retaining Incident Management Assistance Team staff. DHS concurred with the recommendations. FEMA fully implemented our first recommendation by developing an Incident Management Assistance Team Training and Readiness Manual and providing a training schedule for fiscal year 2017. In response to the second recommendation, FEMA officials stated in July 2018 that they plan to develop policies that will provide guidance on a new workforce structure, incentives for Incident Management Assistance Team personnel, and pay-for-performance and all other human resource actions. We are continuing to monitor FEMA’s efforts to address this recommendation.

In November and December 2017, we reported on staffing challenges in FEMA’s Public Assistance program. In November 2017, we reported on FEMA’s efforts to address past workforce management challenges through its redesigned Public Assistance delivery model.⁴⁷ As part of the redesign effort, FEMA created consolidated resource centers to standardize and centralize Public Assistance staff responsible for managing grant applications, and new specialized positions to ensure more consistent guidance to applicants. However, we found that FEMA

⁴⁶The three national and 13 regional Incident Management Assistance Teams are comprised of FEMA emergency management staff in areas such as operations, logistics, planning, and finance and administration. These teams are among the first FEMA officials to arrive at the affected jurisdiction and provide leadership to identify what federal support may be required to respond to the incident, among other things. GAO, *Disaster Response: FEMA Has Made Progress Implementing Key Programs, but Opportunities for Improvement Exist*, [GAO-16-87](#), (Washington, D.C.: Feb. 5, 2016).

⁴⁷[GAO-18-30](#).

had not assessed the workforce needed to fully implement the redesigned model, such as the number of staff needed to fill certain new positions, or to achieve staffing goals. Further, in December 2017, we reported on FEMA's management of its Public Assistance appeals process, including that FEMA increased staffing levels for the appeals process from 2015 to 2017.⁴⁸ However, we found that FEMA continued to face a number of workforce challenges, such as staff vacancies, turnover, and delays in training, which contributed to processing delays.

Based on our findings from our November and December 2017 reports, we recommended, among other things, that FEMA (1) complete workforce staffing assessments that identify the appropriate number of staff needed to implement the redesigned Public Assistance delivery model, and (2) document steps for hiring, training, and retaining key appeals staff, and address staff transitions resulting from deployments to disasters. FEMA concurred with our recommendations to address workforce management challenges in the Public Assistance program and have reported taking some actions in response. For example, to address the first recommendation, FEMA officials have developed preliminary models and estimates of staffing needs across various programs, including Public Assistance, and plan to reevaluate the appropriate number of staff needed and present recommendations to senior leadership by the end of June 2019. To address the second recommendation, FEMA has collected information on the amount of time regional appeals analysts spend on appeals, and the inventory and timeliness of different types of appeals. FEMA officials stated in September 2018 that they plan to assess this information to prepare a detailed regional workforce plan. As of June 2019, we are evaluating plans and documents provided by FEMA to determine whether they have fully addressed this recommendation.

In our March 2019 report on the status of recovery efforts in Puerto Rico, we also reported Puerto Rico officials' concerns about FEMA staff turnover and lack of knowledge among FEMA staff about how the Public Assistance alternative procedures are to be applied in Puerto Rico.⁴⁹ As part of our ongoing work, we are continuing to examine recovery efforts in

⁴⁸GAO, *Disaster Recovery: Additional Actions Would Improve Data Quality and Timeliness of FEMA's Public Assistance Appeals Processing*, [GAO-18-143](#), (Washington, D.C.: Dec. 15, 2018).

⁴⁹[GAO-19-256](#).

Puerto Rico. Our preliminary observations indicate that the concerns we reported on in our March 2019 report continue. For example, Puerto Rico agency officials said that the lack of continuity in FEMA personnel has been a challenge for communication and project development. Further, officials from all seven Puerto Rico government agencies we interviewed felt that the FEMA staff they interacted with did not have a complete understanding of FEMA processes and policies. We are continuing to evaluate FEMA's recovery efforts in Puerto Rico and plan to issue our findings in late 2019.

In April 2019, we reported on the federal government's contracting efforts for preparedness, response, and recovery efforts related to the 2017 hurricanes and California wildfires.⁵⁰ We found, among other things, that contracting workforce shortages continue to be a challenge for disaster response and recovery. Further, although FEMA's 2017 after-action report recommended increasing contract support capacities, it did not provide a specific plan to do so. We also found that while FEMA evaluated its contracting workforce needs in a 2014 workforce analysis, it did not specifically consider contracting workforce needs in the regional offices or address Disaster Acquisition Response Team employees.⁵¹ In our April 2019 report, we recommended, among other things, that FEMA assess its workforce needs—including staffing levels, mission needs, and skill gaps—for contracting staff, to include regional offices and Disaster Acquisition Response Teams, and develop a plan, including timelines, to address any gaps. FEMA concurred with this recommendation and estimates that it will implement it in September 2019.

In our May 2019 report on FEMA disaster assistance to older adults and people with disabilities following the 2017 hurricanes, we found that FEMA began implementing a new approach to assist individuals with disabilities in June 2018, which shifted the responsibility for directly assisting individuals with disabilities from Disability Integration Advisors—which are staff FEMA deploys specifically to identify and recommend actions needed to support survivors with disabilities—to all FEMA staff.⁵² To implement this new approach, FEMA planned to train all of the agency's deployable staff and staff in programmatic offices on disability

⁵⁰[GAO-19-281](#).

⁵¹The primary purpose of Disaster Acquisition Response Team employees is to support contract administration for disasters.

⁵²[GAO-19-318](#).

issues during response and recovery deployments. According to FEMA, a number of Disability Integration Advisors would also deploy to advise FEMA leadership in the field during disaster response and recovery. We found that while FEMA has taken some initial steps to provide training on the changes, it has not established a plan for delivering comprehensive disability-related training to all staff who will be directly interacting with individuals with disabilities. We recommended, among other things, that FEMA develop a plan for delivering training to FEMA staff that promotes competency in disability awareness and includes milestones and performance measures, and outlines how performance will be monitored. DHS concurred with this recommendation; however, officials stated that FEMA is developing a plan to include a disability integration competency in the guidance provided for all deployable staff, rather than through training. We will monitor FEMA's efforts to develop this plan and fully address our recommendation.⁵³

In addition to our prior work on FEMA's workforce management challenges related to specific programs and functions, we are continuing to evaluate FEMA's workforce capacity and training efforts during the 2017 and 2018 disaster seasons. Our preliminary observations indicate that there were challenges in FEMA's ability to deploy staff with the right kinds of skills and training at the right time to best meet the needs of various disaster events. For example, according to FEMA field leadership we interviewed, for some of the functions FEMA performs in the field, FEMA had too few staff with the right technical skills to perform their missions—such as inspections of damaged properties—efficiently and effectively. For other functions, these managers also reported that they had too many staff in the early stages of the disaster, which created challenges with assigning duties and providing on-the-job training. For example, some managers reported that they were allocated more staff than needed in the initial phases of the disaster, but many lacked experience and were without someone to provide direction and mentoring to ensure they used their time efficiently and gained competence more quickly. Groups of FEMA field managers we interviewed told us that difficulties deploying the right mix of staff with the right skills led to challenges such as making purchases to support FEMA operations, problems with properly registering applicants for FEMA programs, or poor

⁵³We continue to believe that FEMA should develop a plan that includes how it will deliver training to promote competency in disability awareness among its staff. The plan for delivering such training should include milestones, performance measures, and how performance will be monitored.

communication with nonfederal partners. Nonetheless, FEMA staff have noted that, despite any suboptimal circumstances during disaster response, they aimed to and have been able to find a way to deliver the mission.

As part of this ongoing work, FEMA field leadership and managers also reported challenges using agency systems to ensure the availability of the right staff with the right skills in the right place and time. FEMA uses a system called the Deployment Tracking System to, among other things, help identify staff available to be deployed and activate and track deployments. To help gauge the experience level and training needs of its staff, the agency established the FEMA Qualification System (FQS), which is a set of processes and criteria to monitor staff experience in competently performing tasks and completing training that correspond to their job titles. According to the FQS guidance, staff who have been able to demonstrate proficient performance of all the relevant tasks and complete required training receive the designation “qualified,” and are expected to be ready and able to competently fulfill their responsibilities. Those who have not, receive the designation “trainee,” and can be expected to need additional guidance and on-the-job training. FQS designations feed into the Deployment Tracking System as one key variable in how the tracking system deploys staff. Among other challenges with FEMA’s Deployment Tracking System and Qualification System, FEMA managers and staff in the field told us an employee’s recorded qualification status was not a reliable indicator of the level at which deployed personnel would be capable of performing specific duties and responsibilities or their general proficiency in their positions, making it more difficult for managers to know the specialized skills or experience of staff and effectively build teams. We are continuing to assess these and other reported workforce challenges and plan to report our findings in January 2020.

FEMA Information Technology Challenges

In April 2019, we reported on FEMA’s Grants Management Modernization program, which is intended to replace the agency’s 10 legacy grants management systems and modernize and streamline the grants management environment.⁵⁴ We found that, of six important leading practices for effective business process reengineering and information

⁵⁴GAO, *FEMA Grants Modernization: Improvements Needed to Strengthen Program Management and Cybersecurity*, [GAO-19-164](#) (Washington D.C.: April 9, 2019).

technology requirements management, FEMA fully implemented four and partially implemented two for the Grants Management Modernization program. The two partially implemented leading practices were (1) establishing plans for implementing new business processes and (2) establishing complete traceability of information technology requirements. In addition, we found that the program's initial May 2017 cost estimate of about \$251 million was generally consistent with leading practices for a reliable, high-quality estimate; however, it no longer reflected the current assumptions about the program at the time of our review. Moreover, the program's schedule—specifically its final delivery date of September 2020—did not reflect leading practices for project schedules, as the date was not informed by a realistic assessment of development activities. Lastly, we found that FEMA fully addressed three and partially addressed two of five key cybersecurity practices.⁵⁵ The two partially addressed practices were (1) assessing security controls, and (2) obtaining an authorization to operate the system. We made 8 recommendations to FEMA to implement leading practices related to reengineering processes, managing information technology requirements, scheduling system development activities, and implementing cybersecurity. DHS concurred with all of our recommendations and provided estimated completion dates for implementing each of them through July 2020.

Thank you, Chairman Rouda, Ranking Member Comer and Members of the Subcommittee. This concludes my prepared statement. I would be happy to respond to any questions you may have at this time.

GAO Contact and Staff Acknowledgements

If you or your staff has any questions concerning this testimony, please contact Christopher P. Currie at (404) 679-1875 or curriec@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Key contributors to this statement were Joel Aldape (Assistant Director), Matthew T. Lowney (Analyst-in-Charge), Rebecca Mendelsohn, David (Ben) Nelson, and Amanda R. Parker. In addition, Aditi Archer, Bryan Bourgault, Lorraine Ettaro, Aaron Gluck, Kathryn Godfrey, Taylor Hadfield, Eric

⁵⁵To conduct these analyses, we assessed FEMA documentation against our *Business Process Reengineering Assessment Guide*, *Cost Estimating and Assessment Guide*, and *Schedule Assessment Guide*, as well as the National Institute of Standards and Technology's risk management framework and identified key cybersecurity practices, among other leading practices and guidance.

Hauswirth, Robert (Denton) Herring, Adam Hoffman, Susan Hsu, Sara Kelly, Amy Moran Lowe, Heidi Nielson, Danielle Pakdaman, Sara Pelton, Amanda Prichard, and Johanna Wong made contributions to this statement. Key contributors for the previous work that this is based on are listed in each product.

Enclosure I: Related GAO Products Previously Issued

Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue. [GAO-11-318SP](#), March 1, 2011.

Federal Disaster Assistance: Improved Criteria Needed to Assess a Jurisdiction's Capability to Respond and Recover on Its Own. [GAO-12-838](#), September 12, 2012.

Fiscal Exposures: Improving Cost Recognition in the Federal Budget. [GAO-14-28](#), October 29, 2013.

Emergency Preparedness: Opportunities Exist to Strengthen Interagency Assessments and Accountability for Closing Capability Gaps. [GAO-15-20](#), December 4, 2014.

High-Risk Series: An Update. [GAO-15-290](#), February 11, 2015.

Budgeting for Disasters: Approaches to Budgeting for Disasters in Selected States. [GAO-15-424](#), March 26, 2015.

Hurricane Sandy: An Investment Strategy Could Help the Federal Government Enhance National Resilience for Future Disasters. [GAO-15-515](#), July 30, 2015.

Disaster Response: FEMA Has Made Progress Implementing Key Programs, but Opportunities for Improvement Exist. [GAO-16-87](#), February 5, 2016.

Disaster Recovery: FEMA Needs to Assess Its Effectiveness in Implementing the National Disaster Recovery Framework. [GAO-16-476](#), May 26, 2016.

Federal Disaster Assistance: Federal Departments and Agencies Obligated at Least \$277.6 Billion during Fiscal Years 2005 through 2014. [GAO-16-797](#), September 22, 2016.

Climate Change: Information on Potential Economic Effects Could Help Guide Federal Efforts to Reduce Fiscal Exposure. [GAO-17-720](#), September 28, 2017.

Disaster Assistance: Opportunities to Enhance Implementation of the Redesigned Public Assistance Grant Program. [GAO-18-30](#), November 8, 2017.

Disaster Recovery: Additional Actions Would Improve Data Quality and Timeliness of FEMA's Public Assistance Appeals Processing. [GAO-18-143](#), December 15, 2017.

2017 Disaster Contracting: Observations on Federal Contracting for Response and Recovery Efforts. [GAO-18-335](#), February 28, 2018.

Federal Disaster Assistance: Individual Assistance Requests Often Granted but FEMA Could Better Document Factors Considered. [GAO-18-366](#), May 31, 2018.

2017 Hurricanes and Wildfires: Initial Observations on the Federal Response and Key Recovery Challenges. [GAO-18-472](#), September 4, 2018.

Homeland Security Grant Program: Additional Actions Could Further Enhance FEMA's Risk-Based Grant Assessment Model. [GAO-18-354](#), September 6, 2018.

Continuity of Operations: Actions Needed to Strengthen FEMA's Oversight and Coordination of Executive Branch Readiness. [GAO-19-18SU](#), November 26, 2018.

2017 Disaster Contracting: Action Needed to Better Ensure More Effective Use and Management of Advance Contracts. [GAO-19-93](#), December 6, 2018.

U.S. Virgin Islands Recovery: Status of FEMA Public Assistance Funding and Implementation. [GAO-19-253](#), February 25, 2019.

High-Risk Series: Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas. [GAO-19-157SP](#), March 6, 2019.

Puerto Rico Hurricanes: Status of FEMA Funding, Oversight, and Recovery Challenges. [GAO-19-256](#), March 14, 2019.

Huracanes de Puerto Rico: Estado de Financiamiento de FEMA, Supervisión y Desafíos de Recuperación. [GAO-19-331](#), March 14, 2019.

Disaster Recovery: Better Monitoring of Block Grant Funds Is Needed. [GAO-19-232](#), March 25, 2019.

FEMA Grants Modernization: Improvements Needed to Strengthen Program Management and Cybersecurity. [GAO-19-164](#), April 9, 2019.

2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico. [GAO-19-296](#), April 18, 2019.

Disaster Contracting: Actions Needed to Improve the Use of Post-Disaster Contracts to Support Response and Recovery, [GAO-19-281](#), April 24, 2019.

Disaster Assistance: FEMA Action Needed to Better Support Individuals Who Are Older or Have Disabilities. [GAO-19-318](#), May 14, 2019.

Enclosure II: Ongoing GAO Reviews

1. Review of U.S. Virgin Islands recovery planning and progress;
2. Puerto Rico disaster recovery planning and progress;
3. 2017 wildfire response and recovery;
4. Federal internal control plans for disaster assistance funding;
5. Electricity grid restoration and resilience after the 2017 hurricane season;
6. Mass care sheltering and feeding challenges during the 2017 hurricanes;
7. Department of Transportation highway and transit emergency relief funding;
8. Drinking water and wastewater utility resilience;
9. Review of disaster death count information in selected states and territories;
10. Department of Health and Human Services disaster response efforts;
11. Disaster and climate change impacts on Superfund sites;
12. FEMA Public Assistance program fraud risk management efforts;
13. Wildland fire collaboration on fuel reduction efforts;
14. Preparedness challenges and lessons learned from the 2017 disasters;
15. FEMA workforce management and challenges;
16. Small Business Administration response to 2017 disasters;
17. Development of the GAO disaster resilience framework;
18. FEMA Individuals and Households Program operations and challenges;
19. National Flood Insurance Program post-flood enforcement;
20. Emergency alerting capabilities and progress;
21. National Flood Insurance Program buyouts and property acquisitions;
22. Economic costs of large-scale natural disasters and impacts on community recovery;
23. Community Development Block Grants – disaster recovery; and
24. Disaster Housing Assistance Program.

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