



August 2023

# DISASTER RECOVERY

## HUD Should Develop Data Collection Guidance to Support Analysis of Block Grant Fraud Risks

## Why GAO Did This Study

In response to the damage caused by natural disasters in 2017 through 2019, Congress appropriated approximately \$39 billion in disaster block grant funds to HUD. The decentralized environment in which HUD's disaster block grants operate creates vulnerabilities to different types of fraud as funds are distributed to grantees, subrecipients, contractors, and subcontractors.

As part of wide-ranging disaster-related work we are conducting, this report focuses on the potential for fraud in CDBG-DR homeowner assistance programs. This report examines, among other objectives, the extent to which (1) applicant data indicate vulnerabilities to fraud and data quality presents challenges to identifying such vulnerabilities and (2) network and other analyses can help HUD manage risks associated with the contracting environment.

GAO conducted data matching and analysis to identify potentially ineligible households for our selected grantees and subrecipients. GAO also conducted network analysis, among other analyses, to help HUD better understand and monitor its decentralized grant environment.

## What GAO Recommends

GAO is making seven recommendations to HUD, including that it develop guidance to collect applicant data to support eligibility decisions and contractor data to facilitate identifying risks. HUD agreed with some, but not all of the recommendations. GAO continues to believe all the recommendations are warranted and should be implemented.

View [GAO-23-104382](#). For more information, contact Rebecca Shea at (202) 512-6722 or [rshear@gao.gov](mailto:rshear@gao.gov).

## DISASTER RECOVERY

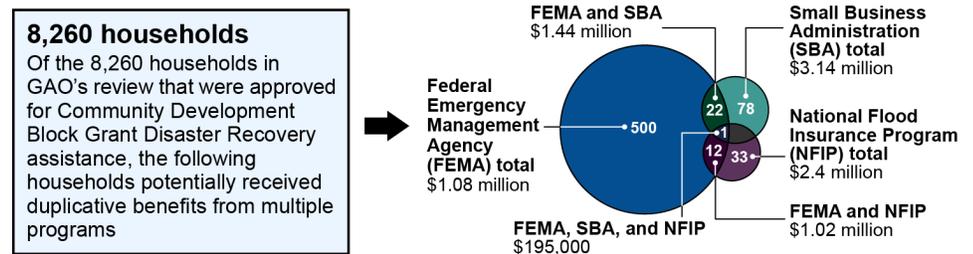
### HUD Should Develop Data Collection Guidance to Support Analysis of Block Grant Fraud Risks

## What GAO Found

GAO's analysis of Community Development Block Grant Disaster Recovery (disaster block grant) applicant data identified vulnerabilities to fraud. Out of 8,260 households reviewed, GAO identified

- **Potential duplication of benefits.** 500 households were approved for Federal Emergency Management Agency (FEMA) assistance that is potentially duplicative of disaster block grant assistance. The FEMA-only assistance for these households totaled over \$1 million. The figure shows other potentially duplicative assistance GAO identified.
- **Potentially ineligible households.** 197 households with estimated income over limits were approved. Estimated income for two of these households exceeded \$330,000—far above the income limits.

#### Households Potentially Receiving Duplicative Benefits from Multiple Programs



Source: GAO analysis of Department of Housing and Urban Development data. | GAO-23-104382

Note: The categories in this figure are not mutually exclusive.

GAO also found that the U.S. Department of Housing and Urban Development (HUD) does not require grantees and subrecipients to collect applicant data in a complete and consistent manner to support applicant eligibility determinations and fraud risk management.

GAO's analysis of the disaster block grant contracting network identified key players who are important to HUD's risk-based monitoring because of the greater potential impact they have on the contracting environment. Specifically, GAO identified 16 contractors and 30 subcontractors that are key players within a network of 1,324 entities. While key players' ability to influence or diffuse information can lead to positive outcomes, fraud risk is heightened when information on control vulnerabilities or wrongdoing is more easily shared across the network.

GAO's analysis of the 16 contractors that are key players illustrates how HUD and grantees could better understand the disaster block grant risk environment by collecting contractor and subcontractor data, such as unique entity identifiers. Currently, HUD's approach to identifying and managing risks focuses on monitoring individual grantees and may not fully assess risks across the contracting environment. HUD does not provide specific guidance to grantees on standards or requirements for collecting data. Additional guidance from HUD on what data elements to collect could support grantees' and subrecipients' ability to identify contractors that are debarred, suspended, or excluded from receiving federal contracts.

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## Abbreviations

AMI	Area Median Income
CAGE Code	Contractor and Government Entity Code
CDBG-DR	Community Development Block Grant Disaster Recovery
DBA Name	Doing Business As Name
DEO	Florida Department of Economic Opportunity
DHS	Department of Homeland Security
DRDP	Disaster Recovery Data Portal
DRGR	Disaster Recovery Grant Reporting
DUNS	Dun & Bradstreet's Data Universal Numbering System
EVS	Social Security Administration's Enumeration Verification System
FEMA	Federal Emergency Management Agency
FIDA	FEMA Information Data and Analysis System
Fraud Risk Framework	<i>A Framework for Managing Fraud Risks in Federal Programs</i>
GLO	Texas General Land Office
GSA	General Services Administration
HAP	Texas GLO's Homeowner Assistance Program
HRP	Texas GLO's Homeowner Reimbursement Program
HRRP	Florida DEO's Housing Repair and Replacement Program
HUD	Department of Housing and Urban Development
IHP	FEMA's Individuals and Households Program
NDNH	National Directory of New Hires
NFIP	National Flood Insurance Program
OIG	Office of Inspector General
OMB	Office of Management and Budget
PII	Personally Identifiable Information
SAM	System for Award Management
SBA	Small Business Administration
SSA	Social Security Administration
SSN	Social Security number

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### **Abbreviations continued**

Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
TIN	Taxpayer Identification Number
UEI	Unique Entity Identifier
USPS	United States Postal Service

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August 17, 2023

### Congressional Committees

Each year, natural disasters, such as hurricanes, flooding, tornadoes, and wildfires, affect American communities. In 2017, hurricanes and wildfires affected an estimated 47 million people.<sup>1</sup> Three hurricanes in that year—Harvey, Irma, and Maria—resulted in an estimated \$265 billion in damage, placing them among the costliest hurricanes in the United States.<sup>2</sup> In response to the damage caused by disasters in 2017 through 2019, Congress appropriated approximately \$39.5 billion in Community Development Block Grant Disaster Recovery (CDBG-DR) grant funds.<sup>3</sup>

The U.S. Department of Housing and Urban Development (HUD) administers CDBG-DR funds. Due to the lack of permanent statutory authority, CDBG-DR appropriations require HUD to establish requirements for each individual disaster, which are identified in *Federal*

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<sup>1</sup>Federal Emergency Management Agency (FEMA), “2017 Hurricane Season FEMA After-Action Report” (2018), accessed June 9, 2023, [https://www.fema.gov/sites/default/files/2020-08/fema\\_hurricane-season-after-action-report\\_2017.pdf](https://www.fema.gov/sites/default/files/2020-08/fema_hurricane-season-after-action-report_2017.pdf).

<sup>2</sup>National Oceanic and Atmospheric Administration National Centers for Environmental Information, “U.S. Billion-Dollar Weather and Climate Disasters” (2023), accessed March 15, 2023, <https://www.ncdc.noaa.gov/billions/>. Note that these data are not direct costs to the federal government and are produced using a detailed methodology reflecting overall U.S. economic damages, including insured and uninsured losses to residential, commercial, and government or municipal buildings.

<sup>3</sup>The Supplemental Appropriations for Disaster Relief Requirements Act, 2017, Pub. L. No. 115-56, Division B, 131 Stat. 1129, 1137 (2017) appropriated \$7.4 billion in Community Development Block Grant Disaster Recovery (CDBG-DR) funding for major disasters declared in calendar year 2017. Congress appropriated an additional \$28 billion in CDBG-DR funding primarily for major disasters declared in 2017 through the Further Additional Supplemental Appropriations for Disaster Relief Requirements Act, 2018, Pub. L. No. 115-123, Division B, Subdivision 1, 132 Stat. 64, 103 (2018). The act required the Department of Housing and Urban Development (HUD) to allocate in total no less than \$11 billion to Puerto Rico and the U.S. Virgin Islands. Further, the Supplemental Appropriations for Disaster Relief Act, 2018, Pub. L. No. 115-254, Division I, 132 Stat. 3186, 3531 (2018) made available \$1.68 billion in CDBG-DR funds for major disasters declared in 2018. The Additional Supplemental Appropriations for Disaster Relief Act, 2019, Pub. L. No. 116-20, 133 Stat. 871, 896 (2019) made \$2.431 billion in CDBG-DR funds available for major disasters occurring in 2017, 2018, or 2019.

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*Register* notices issued by HUD.<sup>4</sup> Communities are allowed to use CDBG-DR funds to address a wide range of unmet recovery needs—losses not met with insurance or other forms of assistance, including other federal disaster assistance—related to housing, infrastructure, and economic revitalization. One use of funds is for CDBG-DR homeowner assistance programs. These programs help homeowners repair, rehabilitate, or rebuild damaged homes; reimburse homeowners for out-of-pocket expenses to repair their homes; or buy homes so that homeowners may relocate, among other assistance.

In May 2021, we reported that CDBG-DR operates in a decentralized risk environment in which funds flow through a number of entities before reaching beneficiaries and fulfilling intended outcomes.<sup>5</sup> HUD allocates CDBG-DR grants to states, territories, and local governments, also known as “grantees.” Grantees, in turn, can allocate all or a portion of their grant to be administered by another entity, also known as “subrecipients.” These grantees and subrecipients may administer disaster recovery programs through contractors that provide damage assessment, construction/repair, inspection, and management services to approved applicants. This decentralized process can create vulnerabilities to different types of fraud as funds are distributed down the grant chain to grantees, subrecipients, contractors, and subcontractors. Moreover, due to the lack of permanent statutory authority, CDBG-DR appropriations require HUD to customize grant requirements for each disaster, which among other things, can present increased opportunities for fraud.<sup>6</sup> Coupled with the growth in these grant appropriations and an expected increase in frequency and intensity of extreme weather and climate-related events, there are increased opportunities for fraud.<sup>7</sup>

Specifically, in May 2021 we found that CDBG-DR was vulnerable to numerous fraud risks, including grantee, contractor, and applicant fraud

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<sup>4</sup>In 2019, GAO recommended that Congress should consider permanently authorizing a disaster assistance program that addresses unmet needs in a timely manner. GAO, *Disaster Recovery: Better Monitoring of Block Grant Funds is Needed*, [GAO-19-232](#) (Washington, D.C.: Mar. 25, 2019).

<sup>5</sup>GAO, *Disaster Recovery: HUD Should Take Additional Action to Assess Community Development Block Grant Fraud Risks*, [GAO-21-177](#) (Washington, D.C.: May 5, 2021).

<sup>6</sup>In 2019, GAO recommended that Congress should consider permanently authorizing a disaster assistance program that meet unmet needs in a timely manner. [GAO-19-232](#).

<sup>7</sup>[GAO-21-177](#).

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risks.<sup>8</sup> CDBG-DR grantee fraud risks we identified included grantee falsification of invoices and misappropriation of funds. Contractor fraud risks included collusion in contract and bid manipulation and fraudulent billing for disaster recovery work. Applicant fraud risks included various eligibility misrepresentations related to issues such as primary residence, financial status, and reimbursement from other sources. Furthermore, we found that the customized grant requirements for each disaster can present challenges in ensuring that grantee requirements support fraud detection and that grantees and their staff receive required fraud-related training.<sup>9</sup>

As part of wide-ranging disaster-related work we are conducting, this report focuses on the potential for fraud in CDBG-DR homeowner assistance programs. Specifically, this report examines the extent to which

1. CDBG-DR applicant data indicate vulnerabilities to fraud and data quality presents challenges to identifying such vulnerabilities,
2. network and other analyses can help HUD manage risks associated with the contracting environment, and
3. HUD's grantee requirements support fraud detection and training.

For all three objectives, we reviewed relevant federal laws, program policies, and the *Federal Register* notices allocating CDBG-DR funds to

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<sup>8</sup>Fraud involves obtaining something of value through willful misrepresentation. Fraud risk (which is a function of likelihood and impact) exists when people have an opportunity to engage in fraudulent activity, have an incentive or are under pressure to commit fraud, or are able to rationalize committing fraud. Fraud risk includes existing circumstances that provide an opportunity to commit fraud. In this report, potential fraud refers to transactions or activities that have indicators that may suggest fraud. Fraud refers to transactions or activities that have been confirmed to be fraudulent via a judicial or other adjudicative process.

<sup>9</sup>In our May 2021 report, we made two recommendations to HUD to (1) comprehensively assess fraud risks to CDBG-DR and (2) in doing so involve relevant stakeholders such as its grantees. HUD implemented a number of initiatives responsive to our first recommendation. HUD has developed a Fraud Risk Management Policy, which established a standard to set expectations and bring consistency across HUD's program units for identifying and assessing fraud risks. HUD also updated its Front-end Risk Assessment and added a fraud category to its annual Risk Profile process, thus elevating fraud risk considerations in HUD's enterprise-wide Risk Profile. HUD has not yet assessed CDBG-DR fraud risks. HUD has taken initial steps to obtain stakeholder input in the assessment of fraud risks. As of May 2023, these recommendations remain open. [GAO-21-177](#).

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selected grantees. We also interviewed officials and examined documentation from HUD's Office of Community Planning and Development, which administers CDBG-DR, and the HUD Office of Inspector General (OIG). We selected four grantees and subrecipients from state and local governments in Texas and Florida, which administer five homeowner assistance programs under CDBG-DR. Specifically, we selected (1) the Texas General Land Office (GLO), (2) Harris County, and (3) the City of Houston in Texas and (4) the Florida Department of Economic Opportunity (DEO). We focused on these states and local governments in part because of their history of natural disasters—including heavy damage following Hurricanes Harvey and Irma in 2017—and the amount of CDBG-DR funds (\$2.3 billion and \$10.8 billion, respectively) allocated by HUD to these two states since 2011.<sup>10</sup>

We also analyzed the extent to which HUD's practices align with relevant leading practices in GAO's *A Framework for Managing Fraud Risks in Federal Programs* (Fraud Risk Framework), as well as principles in the Standards for Internal Control in the Federal Government (federal internal control standards).<sup>11</sup> The relevant leading practices from the Fraud Risk Framework relate to (1) designing and implementing data analytics and other control activities—such as combining data across programs from separate databases to facilitate reporting and analytics—to prevent and detect fraud; (2) employing a risk-based approach to monitoring by taking into account internal and external factors that can influence the control environment; and (3) designing and implementing specific control activities—including policies and procedures, techniques, and mechanisms—to prevent and detect potential fraud. We also assessed the extent to which HUD's practices align with federal internal control standards, specifically principles related to using quality information to achieve an entity's objectives.

To determine the extent to which CDBG-DR applicant data indicate vulnerabilities to fraud and data quality presents challenges to identifying such vulnerabilities, we analyzed individual homeowner assistance programs' applicant level data. These data were from five programs in response to Hurricane Harvey in Texas and Hurricane Irma in Florida in

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<sup>10</sup>While also allocated funds in response to the 2017 hurricanes, we did not include Puerto Rico or the U.S. Virgin Islands in the scope of our review in part because neither had prior experience with large CDBG-DR allocations.

<sup>11</sup>GAO, *A Framework for Managing Fraud Risks in Federal Programs*, [GAO-15-593SP](#) (Washington, D.C.: July 28, 2015) and GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 10, 2014).

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2017. These data included households approved for assistance from the first quarter of calendar year 2020 through the third quarter of calendar year 2021. The five homeowner assistance programs in our review are (1) Texas GLO's Homeowner Assistance Program; (2) Texas GLO's Homeowner Reimbursement Program; (3) Harris County's Residential Buyout, Homeowner Assistance, and Homeowner Reimbursement Programs; (4) City of Houston's Homeowner and Homebuyer Assistance Programs, and (5) Florida DEO's Rebuild Florida Housing Repair and Replacement Program.<sup>12</sup> Our data did not include information on final assistance paid, if any, due to the timing of our data request. As a result, we do not know if applicants ultimately received assistance. We matched applicant data to numerous data sources to examine CDBG-DR control activities related to applicant eligibility. While data matching results are not proof of fraud, the presence of fraud indicators can reveal weaknesses in a program's controls for fraud, waste, and abuse.

To assess the reliability of the applicant level data, we reviewed relevant documentation, interviewed knowledgeable agency officials, and performed electronic testing. We similarly assessed the reliability of datasets used for applicant eligibility matching. We determined the data were sufficiently reliable for the purpose of reporting on our selected grantees' and subrecipients' data and eligibility controls. Due to multiple factors, including variation in program features and differing practices among CDBG-DR grantees and subrecipients, our data analytics results are not projectable to other jurisdictions or disasters. As appropriate, we made referrals of specific instances of potential fraud we identified through our analyses to the HUD OIG for investigation.

We also performed covert tests (i.e., fictitious online applications) from March 2019 through November 2021 to test the CDBG-DR applicant eligibility controls of one of our selected grantees (Texas GLO).<sup>13</sup>

To determine the extent to which network and other analyses can help HUD manage risks associated with the contracting environment, we

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<sup>12</sup>Florida's Housing Repair and Replacement Program (HRRP) oversees multiple assistance activities, such as assistance for small rentals, multiunit structures, and temporary housing assistance. All records we obtained from Florida were for owner-occupied structures, and as such when referring to our selected Florida HRRP requirements, we are referring to its single family owner occupied and manufactured housing unit program guidelines.

<sup>13</sup>We focused our covert tests to Texas based on the amount of appropriated funds and the number of disaster survivors that may apply for and receive CDBG-DR funds.

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conducted a search and review of relevant articles on network-based fraud detection. Based on that search, we selected and reviewed approximately 40 articles that offer examples of how network analysis can be used to detect potential contractor risks. The themes derived from these studies provide a general framework for understanding the analysis we conducted of the CDBG-DR contracting network.

We collected data and contract documentation from our selected grantees and subrecipients on their contracts associated with 2017 and 2018 CDBG-DR funding related to the disasters. To assess the reliability of the contractor data, we reviewed relevant documentation, interviewed knowledgeable agency officials, and performed electronic testing and found the data sufficiently reliable for our purposes. From the data and contract documentation, we were able to identify 257 prime contractors and 1,063 subcontractors that were awarded contracts by our selected grantees and subrecipients.

We conducted a network analysis and other analyses based on these contractor and subcontractor data and assessed how network analysis could support HUD's grantee monitoring. Using the data we collected from the selected grantees and subrecipients and the General Services Administration's (GSA) System for Award Management (SAM) data, we also conducted data matching to identify contractors and businesses that may have been suspended, debarred, or reincarnated (i.e., suspended/debarred companies that reform and operate under a new name).<sup>14</sup> We assessed the reliability of datasets used for the GSA SAM matching by reviewing relevant documentation and performing electronic tests. We determined the data were sufficiently reliable for the purpose of reporting on debarred and suspended contractors and subcontractors. Due to factors such as variation in program features and differing practices among CDBG-DR grantees and subrecipients, our data analytics results are not projectable to other jurisdictions or disasters.

To examine the extent to which HUD's grantee requirements support fraud detection and training, we reviewed the following:

- information from HUD officials on their use of training documentation,

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<sup>14</sup>General Services Administration's (GSA) System for Award Management (SAM) is the central registration point for businesses seeking contracts with the federal government. SAM also contains information on contractors that have been excluded from receiving federal contracts, such as due to suspensions and debarments.

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- relevant documentation—including HUD’s Community Planning and Development Monitoring Handbook and Financial Management and Grant Compliance Certification Checklist (checklist)—related to fraud, waste, and abuse, and
  - checklists from the selected grantees and subrecipients, to identify their policies and procedures to detect and prevent to fraud, waste, and abuse.

For more details on all aspects of our analysis and methods, see appendix I.

We conducted this performance audit from June 2020 to August 2023 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. We conducted our related investigative work March 2019 through November 2021 in accordance with investigation standards prescribed by the Council of the Inspectors General on Integrity and Efficiency.

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## Background

### Overview of Federal Disaster Response

State and local governments are primarily responsible for disaster response and recovery activities. However, the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) establishes the process for states, territories, and tribes to request a presidential major disaster declaration when the damage is so severe that it is beyond the combined capabilities of state and local governments.<sup>15</sup> When the President declares a disaster, it triggers a variety of federal response and recovery programs for government and nongovernmental entities, households, and individuals. Such a declaration is a key mechanism by which the federal government becomes involved in funding and coordinating response and recovery activities. The Department of Homeland Security (DHS) is the federal department with primary responsibility for coordinating disaster response and recovery. Within DHS, the Federal Emergency Management Agency (FEMA) has lead responsibility. Other federal agencies involved in disaster recovery

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<sup>15</sup>42 U.S.C. § 5170.

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activities include HUD, the U.S. Department of Transportation, the Small Business Administration (SBA), and the U.S. Army Corps of Engineers.

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## History of CDBG-DR

The Housing and Community Development Act of 1974 created the CDBG program to develop viable urban communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for low- and moderate-income persons.<sup>16</sup> Because HUD's CDBG program already has a mechanism to provide federal funds to states and localities, when disasters occur Congress often appropriates specific funding in the form of CDBG-DR funds through supplemental appropriations. These appropriations generally provide HUD broad authority to waive certain provisions governing the CDBG program and to establish alternative requirements for each individual disaster, which are identified in *Federal Register* notices issued by HUD. Eligible activities that grantees have undertaken with CDBG-DR funds include (1) relocation payments to displaced residents, (2) acquisition of damaged properties, (3) rehabilitation of damaged homes, (4) rehabilitation of public facilities such as neighborhood centers and roads, and (5) hazard mitigation.

Under recent CDBG-DR appropriations enacted by Congress, HUD must certify each grantee has proficient financial controls in place. HUD also requires grantees to demonstrate its procedures are adequate to prevent applicant duplication of benefits and prevent fraud, waste, and abuse.<sup>17</sup> As of March 2023, HUD was overseeing 222 CDBG-DR grants totaling approximately \$92.4 billion.<sup>18</sup> The earliest of these grants was related to disasters in 2001.

Agencies can face challenges developing and maintaining robust grant management processes that can provide the level of oversight needed to ensure funds are used for authorized purposes and not for ineligible and unintended activities. These and other grant management challenges were highlighted by the HUD OIG in its most recent Top Management Challenges report.

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<sup>16</sup>42 U.S.C. §§ 5301 – 5322.

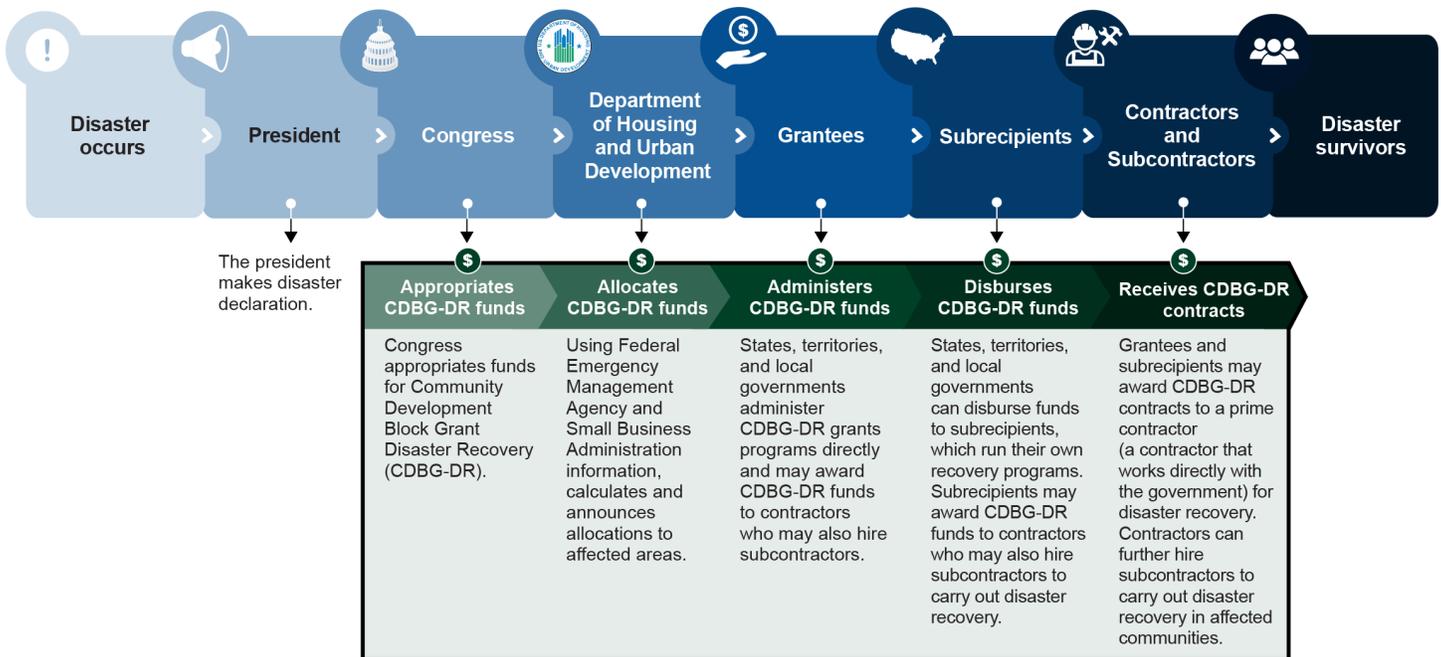
<sup>17</sup>A duplication of benefits occurs when a person receives disaster assistance from multiple sources for the same recovery purpose, and the total amount received for that purpose is more than the total need.

<sup>18</sup>HUD, "CDBG Disaster Recovery Grant History" (March 31, 2023), accessed May 17, 2023, <https://www.hudexchange.info/programs/cdbg-dr/reports/>.

## CDBG-DR Grant Funding Process

CDBG-DR funds are among the sources of disaster recovery assistance available after a President declares a major disaster. Administered by HUD, CDBG-DR funds provide flexible federal recovery funding for states and localities affected by disasters and generally support long-term recovery. CDBG-DR funds can be used to assist many types of beneficiaries in a variety of ways, including individuals, businesses, non-profits, and local governments. Under the requirements of the relevant appropriations law, HUD does not provide CDBG-DR funds directly to disaster survivors. Instead, CDBG-DR funds can flow through a number of entities before reaching the intended beneficiaries (see fig. 1).

**Figure 1: Example Flow of Community Development Block Grant Disaster Recovery (CDBG-DR) Grants to States, Territories, and Local Governments**



Source: GAO analysis of Department of Housing and Urban Development (HUD) data (information); HUD (seal); GAO (icons). | GAO-23-104382

Note: CDBG-DR grantees and subrecipients may implement grant programs without directly contracting with contractors. For example, a homeowner reimbursement program may reimburse homeowners affected by a disaster for repairs the homeowner received directly from a contractor.

- **States, territories, and local governments (grantees)**—HUD allocates CDBG-DR grants to states, territories, and local governments also known as “grantees.” These grantees then administer disaster recovery programs to assist disaster survivors. Grantees are generally required to take a number of steps before entering into a grant agreement with HUD and expending funds. This includes, obtaining

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approval from HUD for the (1) grantees' financial controls and procurement processes; (2) implementation plans that describe their capacity to carry out the recovery; and (3) action plans for disaster recovery that identify the proposed use of all funds.<sup>19</sup>

Once these plans are approved by HUD, grantees generally manage disaster recovery programs themselves or work with subrecipients. Grantees may hire or contract for disaster recovery program staff, or rely on existing state, territory, and local agencies that administer CDBG-DR funds.

- *Subrecipients*—Subrecipients are generally a public or private nonprofit agency, authority, or organization receiving CDBG-DR funds from a grantee or another subrecipient to undertake disaster recovery efforts. Grantees can enter into agreements with subrecipients to carry out certain disaster recovery programs on behalf of grantees. Grantees are responsible for ensuring that CDBG-DR funds are used in accordance with all programs requirements, including funds used by subrecipients. Before disbursing any CDBG-DR funds to a subrecipient, the grantee must enter into a written agreement with the subrecipient that includes certain provisions as specified in HUD regulations. Subrecipients may hire disaster recovery program staff who administer CDBG-DR funds. In Texas, two subrecipients—Harris County and City of Houston—received CDBG-DR funds from the Texas GLO.
- *Contractors*—Grantees and subrecipients may award contracts to a prime contractor—a contractor that works directly with the government—for disaster recovery in areas such as damage assessment, construction/repair, inspection, and management.
- *Subcontractors*—Contractors can further hire subcontractors to carry out disaster recovery in affected communities. Subcontractors can then hire more subcontractors.

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## 2017 and 2018 CDBG-DR Funds Allocated to Selected Grantees

Once Congress appropriates CDBG-DR funds, HUD publishes notices in the *Federal Register* to allocate the funding appropriated to affected communities based on unmet need. As shown in table 1, the four selected grantees and subrecipients in our review have budgeted CDBG-DR funds for housing, infrastructure, and economic revitalization programs.

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<sup>19</sup>See, for example, 83 Fed. Reg. 5844 (Feb. 9, 2018).

**Table 1: 2017 and 2018 Community Development Block Grant Disaster Recovery (CDBG-DR) Funds Budgeted by Selected Grantees and Subrecipients, by Funding Category**

Dollars in millions

Grantee/ Subrecipient	Housing	Infrastructure	Economic revitalization	Other <sup>a</sup>	Total
Florida	704	56	13	39	<b>812</b>
Texas	3,139	413	100	412	<b>4,065</b>
City of Houston <sup>b</sup>	617	—	39	38	<b>694</b>
Harris County <sup>b</sup>	633	223	—	62	<b>917</b>

Legend: Dash “—” A dash indicates a category of funding not applicable to a grantee or subrecipient.

Source: Grantee action plans. | GAO-23-104382

Note: Funding amounts may not sum because of rounding. Values reflect the Texas General Land Office (GLO) Action Plan amendment approved January 20, 2023 and the Florida Action Plan Amendment from February 20, 2023.

<sup>a</sup>Includes administration, planning, and other expenses such as project delivery costs, and public services.

<sup>b</sup>The City of Houston and Harris County are subrecipients of Texas GLO and received portions of Texas GLO’s total CDBG-DR grant.

## CDBG-DR Homeowner Applicant Eligibility Requirements

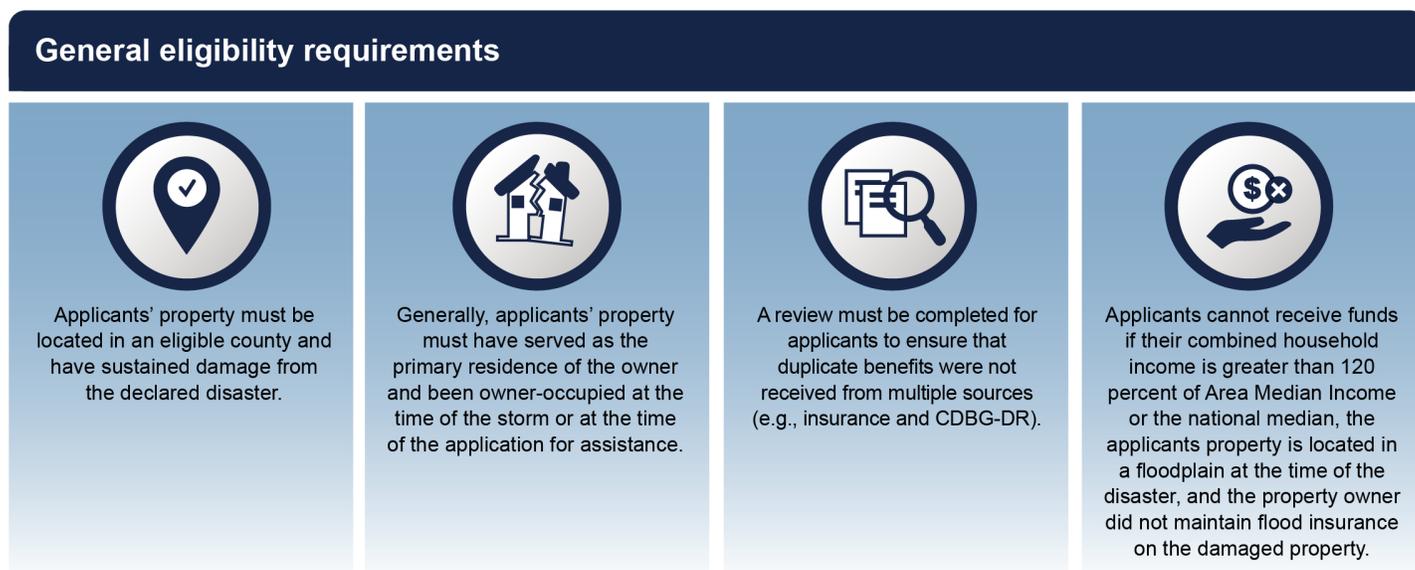
For each CDBG-DR appropriation, HUD publishes *Federal Register* notices allocating funds and describing grantee requirements, the grant award process, criteria for action plan approval, and eligible disaster recovery activities. For example, the February 9, 2018 *Federal Register* notice, which allocated \$7.39 billion in CDBG-DR funds, described rules, statutes, waivers, and alternative eligibility requirements that would apply to certain activities undertaken by grantees.<sup>20</sup>

For example, the February 9, 2018 *Federal Register* notice states that properties that serve as second homes at the time of the disaster are not eligible for rehabilitation assistance or housing incentives, with some limited exceptions. Further, applicants for certain homeowner assistance whose combined household incomes are greater than 120 percent of area median income are not eligible for such assistance if the applicant’s property is located in a floodplain at the time of the disaster and the property owner did not maintain flood insurance on the damaged property. Each grantee or subrecipient is able to apply additional requirements specific to their CDBG-DR programs if approved by HUD. For example, Texas requires applicants to be current on property taxes

<sup>20</sup>83 Fed. Reg. 5844 (Feb. 9, 2018). Grantees were the State of Texas, the State of Florida, the Commonwealth of Puerto Rico, and the United States Virgin Islands.

and child support payments. Harris County and Florida require applicants to be U.S. citizens or eligible residents. Figure 2 shows selected eligibility requirements for certain CDBG-DR homeowner assistance from recent *Federal Register* notices, grantee and subrecipient action plans, and program guidelines.

**Figure 2: Selected Community Development Block Grant Disaster Recovery (CDBG-DR) Homeowner Assistance Applicant Eligibility Requirements Published in *Federal Register* Notices, Action Plans, and Program Guidelines**



Source: GAO analysis of relevant *Federal Register* notices, Action Plans, and Program Guidelines; GAO (icons). | GAO-23-104382

## CDBG-DR Homeowner Assistance Programs

Communities are allowed to use their CDBG-DR funds to address a wide range of unmet recovery needs related to housing, infrastructure, and economic revitalization. Grantees use CDBG-DR funds to design homeowner assistance programs, among others, to address needs specific to their communities. The five homeowner assistance programs in our review are (1) Texas GLO's Homeowner Assistance Program; (2) Texas GLO's Homeowner Reimbursement Program; (3) Harris County's Residential Buyout, Homeowner Assistance, and Homeowner Reimbursement Programs; (4) City of Houston's Homeowner and Homebuyer Assistance Programs, and (5) Florida DEO's Rebuild Florida

Housing Repair and Replacement Program.<sup>21</sup> A description of the selected grantee and subrecipient homeowner assistance programs in our review is in table 2.

**Table 2: Selected Grantee and Subrecipient Homeowner Assistance Programs Using Community Development Block Grant Disaster Recovery Funds**

Dollars in millions

Grantee/Subrecipient	Program Name	Description	Total Allocation <sup>b</sup>
Texas General Land Office (GLO) <sup>a</sup>	Homeowner Assistance Program	Helps homeowners affected by Hurricane Harvey repair and rebuild their homes. Provides homeowner assistance through: repairing and rehabilitating homes; reconstruction; improving a damaged home so that it is stronger against nature disasters; elevating homes above flood level in conjunction with reconstruction assistance; and providing temporary relocation assistance.	\$1,334
	Homeowners Reimbursement Program	Reimburses homeowners for up to \$50,000 in out-of-pocket expenses for eligible repairs to their Hurricane Harvey damaged home.	\$105
Harris County (Texas)	Residential Buyout Program	Assists owners whose property was damaged by the 2017 floods to relocate to areas of reduced flood risk. According to Harris County, the program is a key part of Harris County's plan to increase the county's overall resilience to future flooding by buying out properties in pre-identified areas that have previously flooded.	\$194
	Homeowner Assistance Program	Provides financial assistance for the rehabilitation and reconstruction of homes damaged by Hurricane Harvey.	\$44.5
	Homeowner Reimbursement Program	Reimburses homeowners who sustained damage to their primary home as a result of Hurricane Harvey (2017) and who repaired their home utilizing out of pocket funds.	\$54.3

<sup>21</sup>Florida's HRRP oversees multiple assistance activities, such as assistance for small rentals, multiunit structures, and temporary housing assistance. All records we obtained from Florida were for owner-occupied structures, and as such when referring to our selected Florida HRRP requirements, we are referring to its single family owner occupied and manufactured housing unit program guidelines.

Grantee/Subrecipient	Program Name	Description	Total Allocation <sup>b</sup>
City of Houston (Texas)	Homeowner Assistance Program	Assists eligible City of Houston applicants whose residences were directly impacted by Hurricane Harvey. The focus of the program is to fulfill an unmet housing need for areas most impacted by Hurricane Harvey. The program also secures housing by bringing existing units into compliance with applicable health and safety codes or by replacing those existing structures that cannot be repaired because of structural or economic barriers.	\$69.2
	Homebuyer Assistance Program	Provides funds for down payment, closing cost, principle buydown, and other direct financial assistance to homebuyers to finance the purchase of a home. This program prioritizes households that were impacted by Hurricane Harvey to facilitate the movement of low- and moderate-income households into new homes after their homes were damaged by Hurricane Harvey.	\$18.4
Florida Department of Economic Opportunity	Rebuild Florida Housing Repair and Replacement Program	Addresses remaining unmet recovery needs through the repair, rebuild, or replacement of Hurricane Irma damaged homes across the hardest-hit communities of the state.	\$535

Source: GAO review of selected Community Development Block Grant Disaster Recovery (CDBG-DR) grantees' and subrecipients' disaster recovery programs documents. | GAO-23-104382

<sup>a</sup>Does not include funds directly administered by Harris County and the City of Houston, which are Texas GLO subrecipients.

<sup>b</sup>Florida values are as of February 2023. Texas General Land Office, Harris County, and Houston values are as of January 2023.

To fulfill program requirements, the selected grantees and subrecipients we reviewed design and implement their own data collection and management systems on applicants and contractors. For example, Texas GLO maintains applicant data for the Homeowner Assistance Program (HAP) and the Homeowner Reimbursement Program (HRP).

### CDBG-DR Financial Management and Grant Compliance Certification Checklist

Under CDBG-DR appropriations enacted by Congress, the Secretary of HUD is required to certify, in advance of signing a CDBG-DR grant agreement, that the grantee:

- has in place proficient financial controls;
- has in place proficient procurement processes;
- has established adequate procedures to prevent any duplication of benefits as defined by section 312 of the Stafford Act;
- has established adequate procedures to ensure timely expenditure of funds;
- has established adequate procedures to maintain comprehensive websites regarding all disaster recovery activities assisted with the CDBG-DR funds; and

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- has established adequate procedures to detect fraud, waste, and abuse of funds.

In order for the Secretary to make the certification, each grantee must complete a certification checklist and submit the required information to the grantee's designated HUD representative. A HUD representative must then review the grantee's submission and complete this checklist. As part of this review, HUD checks that grantees are ensuring that their subrecipients are satisfying all of the grant requirements—such as those outlined in the checklist. Among other things, HUD staff use the checklist to determine if grantees have controls in place to do the following:

- *Verify duplication of payments.* Each grantee or subrecipient individually develops their financial controls and procedures for preventing duplication of benefits. The checklist includes provisions requiring grantees' controls to include verifying all sources of assistance received by the applicant, entering into agreements with the applicants to repay any duplicative assistance, and identifying a method to monitor applicant compliance with those agreements. The grantees' designated HUD representative must review and determine whether grantees' submissions is satisfactorily completed.
- *Detect fraud, waste, and abuse of CDBG-DR funds.* HUD must certify, in advance of signing a grant agreement, that the grantee has procedures in place to detect fraud, waste, and abuse of funds before receiving CDBG-DR funds, including procedures requiring the grantee and subrecipients to attend any fraud-related training provided by the HUD OIG. In the past, HUD OIG has offered fraud-related training to grantees and subrecipients and their CDBG-DR program staff from either a central location or using virtual connectivity tools.

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## Framework for Managing Fraud Risks in the Federal Government

In July 2015, we issued the Fraud Risk Framework, which outlines four key components and a comprehensive set of leading practices to guide agency managers in combatting fraud in a strategic, risk-based way.<sup>22</sup> The Fraud Reduction and Data Analytics Act of 2015 required the Office of Management and Budget (OMB) to establish guidelines for federal agencies to create controls to identify and assess fraud risks and to design and implement anti-fraud control activities.<sup>23</sup> The act further required OMB to incorporate the leading practices from the Fraud Risk

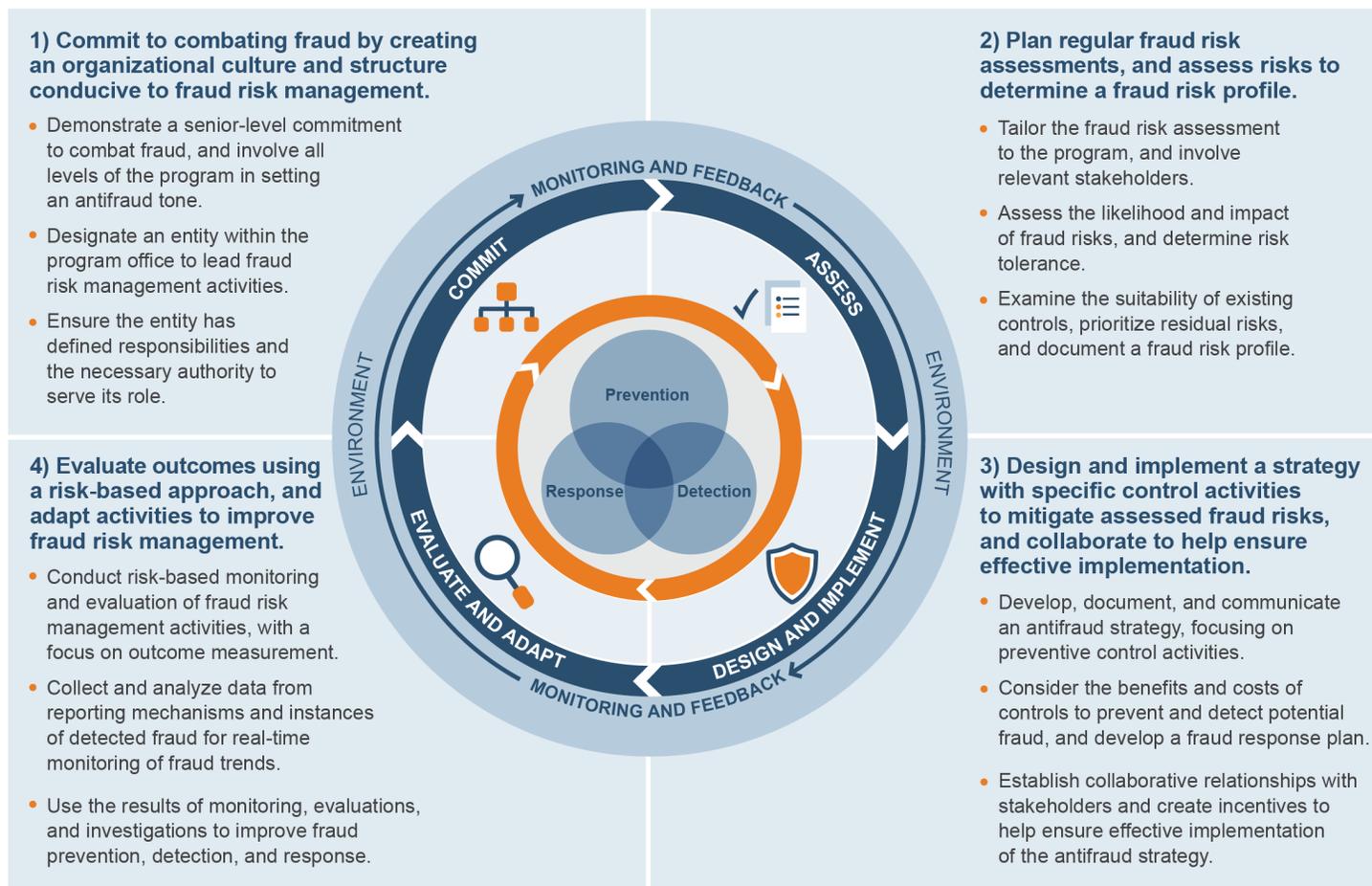
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<sup>22</sup>[GAO-15-593SP](#).

<sup>23</sup>Pub. L. No. 114-186, 130 Stat. 546 (2016).

Framework in the guidelines. Although the Fraud Reduction and Data Analytics Act of 2015 was repealed in March 2020, the Payment Integrity Information Act of 2019 requires these guidelines to remain in effect, subject to modification by OMB as necessary, and in consultation with GAO.<sup>24</sup> As depicted in figure 3, the Fraud Risk Framework describes leading practices within four components: commit, assess, design and implement, and evaluate and adapt.

**Figure 3: Four Components of the Fraud Risk Framework and Selected Leading Practices**



Source: GAO (information and icons). | GAO-23-104382

<sup>24</sup>Pub. L. No. 116-117, § 2(a), 134 Stat. 113, 131 - 132 (2020), codified at 31 U.S.C. § 3357.

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## Our Analysis of Selected Grantees Identified Vulnerability to Applicant Fraud, but Incomplete and Inconsistent Data Limit HUD's Ability to Manage Fraud Risks

### Analysis of Data from Selected CDBG-DR Grantees and Subrecipients Reveal Vulnerabilities to Applicant Fraud in Three Eligibility Areas

We analyzed data from each of our selected grantees and subrecipients and found vulnerabilities to fraud associated with three areas of applicant eligibility determinations. Specifically, using data from approximately 8,300 households that were approved as eligible by our four selected grantees and subrecipients, we identified vulnerabilities to fraud related to:

1. unreported duplication of other benefits, including with FEMA's Individuals and Households Program (IHP), SBA disaster loans, and the National Flood Insurance Program (NFIP);
2. invalid and vacant addresses; and
3. unreported income.

Our analyses highlight weaknesses in grantees' control activities for all three areas of applicant eligibility determination.<sup>25</sup> Control weaknesses increase vulnerability to fraud. As appropriate, we made referrals of specific instances of potential fraud to the HUD OIG for investigation.

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<sup>25</sup>Control activities are the policies, procedures, techniques, and mechanisms that enforce management's directives to achieve the entity's objectives. [GAO-14-704G](#). Some of our testing focused on specific controls where such data and requirements were available (e.g. financial eligibility controls). Other analysis identified weaknesses associated with control activities outlined in policies and procedures. For purposes of this report, we refer to both of these areas as control testing.

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## Duplication of Benefits Identified

### Duplication of Benefits Requirements and GAO Analysis

*Federal Register* applicant eligibility requirements: Community Development Block Grant Disaster Recovery (CDBG-DR) applicants



must undergo a duplication of benefits review to identify previously received disaster-related assistance from other agencies such as the Federal Emergency Management Agency (FEMA) Individuals and Households Program (IHP), the Small Business Administration (SBA), and the National Flood Insurance Program (NFIP).

**GAO Analysis:** In order to identify CDBG-DR assistance that may have resulted in duplications of benefits, we first identified the damaged property addresses for approved CDBG-DR applicants that did not report receiving assistance from FEMA, SBA, or NFIP. We matched this subset with beneficiary data from those programs during the time period of our review. We used household rather than individual applicants so we could identify instances where different residents in the same household may have applied to each of the different programs. We also matched the date of the application to the potentially duplicative program or the date the assistance was received to the date of the CDBG-DR application.

Sources: *Federal Register* notices, GAO analysis; Arcady/stock.adobe.com (puzzle); stas111/stock.adobe.com (icons); | GAO-23-104382

Under the Stafford Act, federal agencies may not provide disaster financial assistance to any person, business, or other entity suffering losses when any other source has already provided such assistance for the same disaster-caused need or when such assistance is available from another source.<sup>26</sup> HUD policy states a duplication of benefits occurs when a person receives disaster assistance from multiple sources for the same recovery purpose, and the total amount received for that purpose is more than the total need.

CDBG-DR applicants are awarded assistance based in part on the amount of assistance they have received from other disaster-related programs including FEMA IHP, SBA, and NFIP. If applicants do not report assistance they received from a source that is deemed duplicative with CDBG-DR and a grantee or subrecipient does not detect the other assistance, applicants could receive more CDBG-DR assistance than they are eligible for.

In 2018, the HUD OIG found duplication of benefits to be one of CDBG-DR grantees' common weaknesses.<sup>27</sup> In 2019, HUD issued two *Federal Register* notices to clarify the duplication of benefits requirements for

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<sup>26</sup>42 U.S.C § 5155. However, a federal agency may provide assistance to a person entitled to benefits for the same purposes from another source if the person has not yet received those benefits at the time of application for federal assistance and if the person agrees to repay all duplicative assistance to the federal agency. In addition, some assistance does not qualify as a duplication of benefits, such as a subsidized loan that meets certain requirements under the Disaster Recovery Reform Act of 2018 amendments to the Stafford Act. Pub. L. No. 115-254, § 1210(a), 132 Stat. 3186, 3442 - 3444 (2018).

<sup>27</sup>HUD Office of Inspector General (OIG), *HUD's Office of Block Grant Assistance Had Not Codified the Community Development Block Grant Disaster Recovery Program* (Fort Worth, T.X.: July 23, 2018). [2018-FW-0002](#).

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CDBG-DR grantees.<sup>28</sup> In May 2021, we also reported that duplication of benefits was a fraud risk for CDBG-DR.<sup>29</sup>

Under most of the CDBG-DR appropriations enacted by Congress, HUD must certify that each grantee has proficient financial controls in place to prevent applicant duplication of benefits and prevent fraud, waste, and abuse. See sidebar for *Federal Register* requirement related to duplication of benefits and a summary of our analysis

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<sup>28</sup>84 Fed. Reg. 28836 (June 20, 2019) and 84 Fed. Reg. 28848 (June 20, 2019).

<sup>29</sup>[GAO-21-177](#).

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### Disaster Recovery Data Portal (DRDP)

The U.S. Department of Housing and Urban Development (HUD) is developing a tool known as the Disaster Recovery Data Portal (DRDP) to share data with Community Development Block Grant Disaster Recovery (CDBG-DR) grantees.

Initially, the DRDP is intended to support data sharing between CDBG-DR grantees and the Federal Emergency Management Agency (FEMA) regarding CDBG-DR applicants. The DRDP is intended to allow real time data sharing to eliminate duplication of benefits; allow multiple programs to utilize one standard data set; and provide correct, accurate, and the most up to date data available, among other things.

Following completion of the DRDP, HUD has reported it intends to explore other federal data sources, such as environmental reviews, flood insurance claims, and FEMA inspections that could improve the efficacy of CDBG-DR funds and ability to ensure data sources are linked and accessible to those who need them.

The DRDP is part of a broader, ongoing initiative that integrates priorities for research and data collection across HUD and aligns with HUD's strategic goals and objectives.

Source: GAO analysis of HUD's 2023 Congressional Justifications, HUD's Office of Policy Development and Research Learning Agenda: Fiscal Years 2022–2026, and HUD's Office of the Chief Information Officer Information Technology Fund. | GAO-23-104382.

Each grantee or subrecipient individually is to develop their financial controls and procedures for preventing duplication of benefits, in part by verifying the information applicants provide about any additional funding they receive, and HUD is to use its certification checklist to assess the verification processes.<sup>30</sup> HUD's checklist includes provisions that grantee controls should include verifying all sources of assistance received by the applicant, entering into agreements with the applicants to repay any duplicative assistance, and identifying a method to monitor applicant compliance with those agreements. HUD is developing a tool intended to provide CDBG-DR grantees information to eliminate duplication of benefits. See the sidebar for additional information.

Documentation from our selected grantees and subrecipients indicates verification processes for potential duplication of benefits could include: 1) third-party verification systems; 2) review of federal agency databases; 3) Freedom of Information Act requests; or 4) review of applicant-provided documentation.

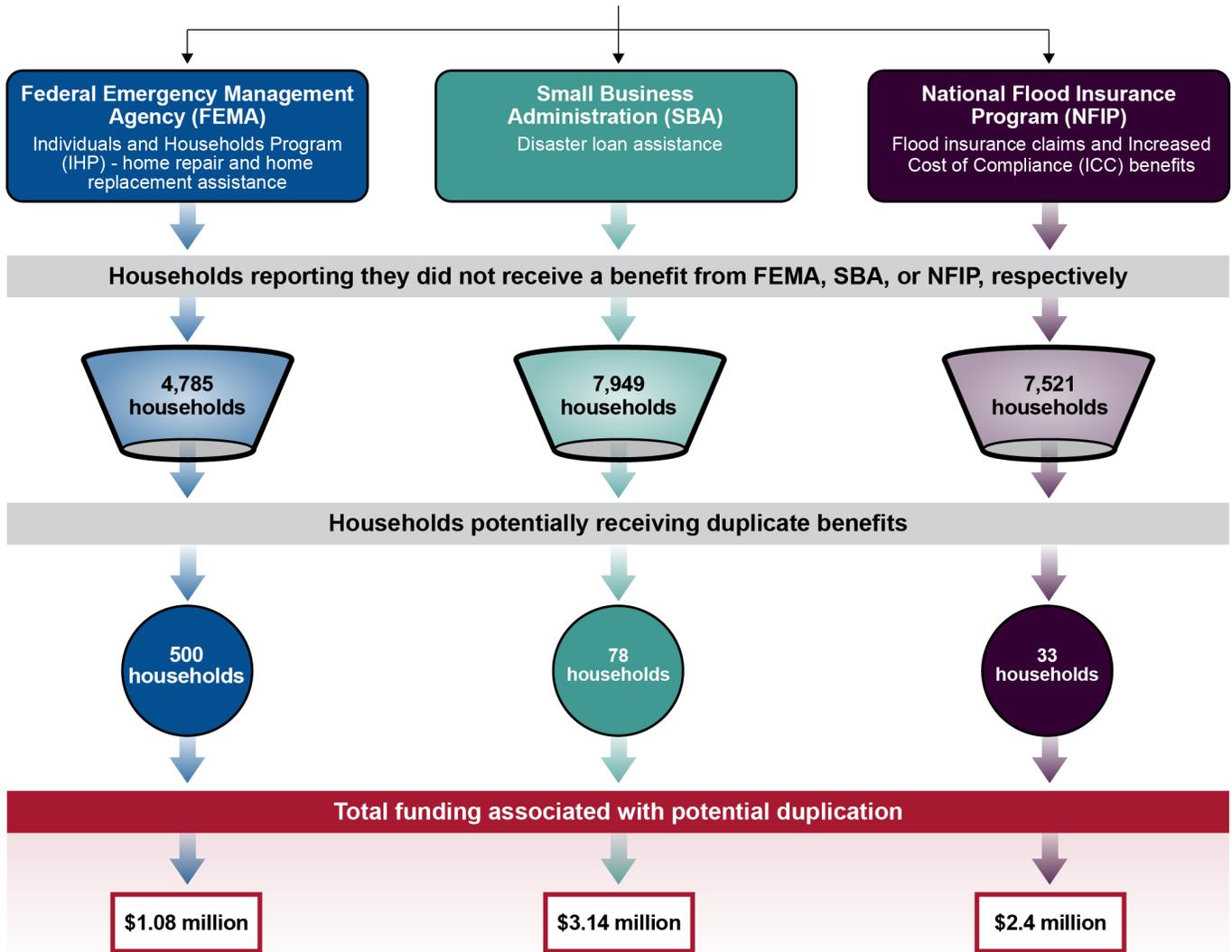
In our analysis of selected CDBG-DR households we found potential duplication of benefits, revealing that current grantee financial controls are vulnerable to fraud. Of the 8,260 households in our review that were approved for CDBG-DR assistance, we examined the households that reported not receiving assistance from FEMA IHP, SBA, NFIP, or that were missing this information in the selected grantee and subrecipient data. We found 575 unique households across the FEMA IHP, SBA, or and NFIP data that had applied for or received benefits that were not recorded in the grantee and subrecipient data from those programs. Figure 4 shows the results of our duplication of benefits analysis.<sup>31</sup>

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<sup>30</sup>HUD, *Community Development Block Grant–Disaster Recovery (CDBG-DR): P.L. 115-56 Financial Management and Grant Compliance Certification for States and Grantees subject to State CDBG Requirements* (Washington, D.C.: January 2018).

<sup>31</sup>The households in our review were determined eligible from the first quarter of 2020 through the third quarter of 2021.

**Figure 4: Households Potentially Receiving Duplicate Benefits from Selected Disaster Recovery Grantees and Subrecipients**  
**8,260 households approved for Community Development Block Grant Disaster Recovery funding**



Source: GAO analysis of selected federal disaster assistance data. | GAO-23-104382

Specifically, we found:

- *FEMA IHP*—Of the 8,260 approved CDBG-DR households in our review, we identified 4,785 that did not have any FEMA assistance reported in the CDBG-DR application data. Of those 4,785, we found 500 households approved for FEMA IHP assistance, signifying potential duplication of benefits. We also found all 500 of those

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households applied for FEMA assistance before applying for CDBG-DR assistance. The unreported potentially duplicative FEMA assistance we identified totaled over \$1 million, averaged about \$2,000 per household, and ranged from \$103 to over \$10,000. The 500 households with potentially duplicative unreported FEMA assistance came from across all five homeowner assistance programs in our review.

- *SBA Disaster Loans*—Of the 8,260 approved CDBG-DR households in our review, we identified 7,949 households that did not have any SBA assistance reported in the CDBG-DR data. Of those 7,949 households, we found 78 households approved for potentially duplicative SBA assistance.<sup>32</sup> Seventy-five of the 78 households were determined eligible for SBA assistance before applying to CDBG-DR, while three households were determined eligible for SBA assistance after they applied to CDBG-DR. The unreported SBA assistance we identified totaled over \$3 million, averaged over \$40,000, and ranged from \$3,400 to over \$157,000.<sup>33</sup> The 78 households with potentially duplicative unreported SBA assistance came from across four of the five homeowner programs in our review.
- *NFIP Flood Insurance*—Of the 8,260 approved CDBG-DR households in our review, we identified 7,521 households that did not have any NFIP assistance reported in the CDBG-DR data. Of those 7,521 households, we found 33 households approved for potentially duplicative NFIP assistance. Thirty-one of those households received their NFIP assistance before applying to CDBG-DR, while two households received their NFIP assistance after applying to CDBG-DR. The unreported assistance totaled over \$2.4 million, averaged \$73,200, and ranged from less than \$500 to over \$280,000. The 33

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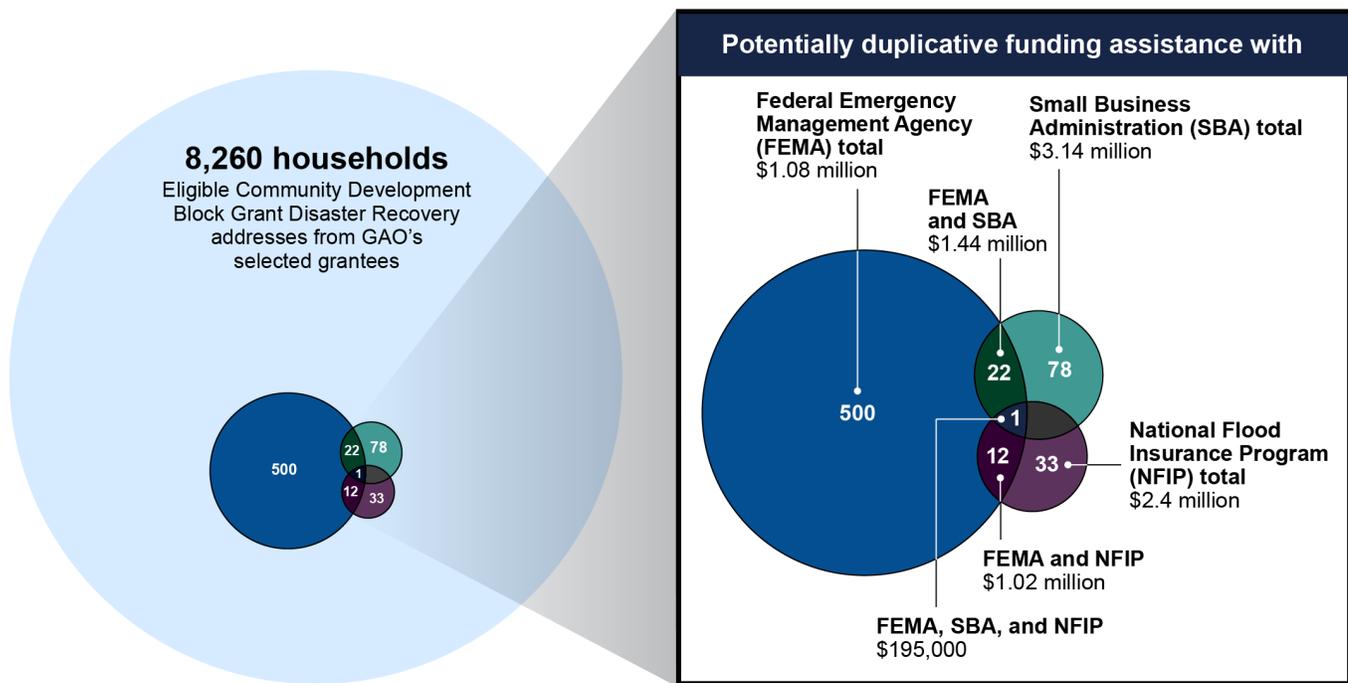
<sup>32</sup>In 2019, HUD issued two *Federal Register* notices to clarify the duplication of benefits requirements for CDBG-DR grantees. Under these notices, subsidized Small Business Administration (SBA) loans are assistance that must be included in an applicant's duplication of benefits analysis unless an exception applies. One exception is if the subsidized loan meets certain requirements under the Disaster Recovery Reform Act of 2018 amendments to the Stafford Act. Pub. L. No. 115-254, § 1210(a), 132 Stat. 3186, 3442 - 3444 (2018). Under these amendments, a subsidized loan is not a prohibited duplication of benefits provided that all federal assistance received by the applicant is used toward a loss suffered as a result of a major disaster or emergency declared between January 1, 2016, and December 31, 2021. See 84 Fed. Reg. 28836, 28841 – 28842 (June 20, 2019). Confirming how all assistance received was used was not within the scope of our review.

<sup>33</sup>The mean unreported SBA loan differed from the median and mode, which are both \$25,000.

households with potentially duplicative unreported NFIP assistance came from four of the five homeowner programs in our review.

We also identified 35 households approved for CDBG-DR assistance that potentially received unreported assistance from multiple duplicative assistance programs, as shown in Figure 5.

**Figure 5: Households Potentially Approved For Duplicate Benefits from Multiple Programs; Selected Disaster Recovery Grantees and Subrecipients**



Source: GAO analysis of Department of Housing and Urban Development data. | GAO-23-104382

Note: The categories in this figure are not mutually exclusive, adding them together will result in over counting.

## Invalid and Vacant Addresses Identified

### Invalid and Vacant Address Requirements and GAO Analysis

#### Selected grantee and subrecipient applicant eligibility requirements:

Applicants for certain Community Development Block Grant Disaster

Recovery (CDBG-DR) assistance must reside in an eligible county during the time of the storms and the damaged property must be the applicant's primary residence and have been owner-occupied at the time of the storm or at the time of the application for assistance.

**GAO Analysis:** We matched approved CDBG-DR households from our selected grantees and subrecipients to the United States Postal Service (USPS) address-management data and USPS archived address data from the time of the 2017 storms in Texas and Florida.

We looked for signs in the USPS data that an approved CDBG-DR household was vacant at the time of the storm. We also looked for signs that a household had moved homes prior to the storm, which could signify an applicant was no longer living at the damaged address, but claimed it as their primary residence in order to receive CDBG-DR assistance. We used the USPS data to identify the type of property and compared household locations to the list of eligible counties for our selected programs. We also compared applicant data to Federal Emergency Management Agency and Small Business Administration data to identify potential renters.

Source GAO analysis of selected CDBG-DR grantee and subrecipient program requirements. Arcady/stock.adobe.com (puzzle); stas111/stock.adobe.com (icons). | GAO-23-104382



*Federal Register* notices that govern the 2017 and 2018 CDBG-DR grants state that, except for limited exceptions, properties that serve as second homes at the time of the disaster, or following the disaster, are not eligible for rehabilitation assistance or housing incentives. HUD defines a second home as a home that is not the primary residence of the owner, a tenant, or any occupant at the time of the storm or at the time of application for assistance.

In May 2021, we reported that potential ineligible second properties include:

- Rental properties
- Vacation properties
- Investment properties
- Homes received through inheritance that are not primary residences
- Second homes under construction at the time of the disaster
- Properties that were abandoned at the time of the disaster or are currently unoccupied.<sup>34</sup>

In November 2020, the HUD OIG identified homeowners fraudulently identifying a second home or an investment property as their primary residence as one of the most prevalent CDBG-DR fraud schemes.<sup>35</sup> In May 2021, we identified CDBG-DR applicants claiming a second property as their primary residence and applicants falsely reporting damage to a property that does not exist as applicant fraud risks.<sup>36</sup> Grantees can reduce their vulnerability to fraud by verifying an applicant's primary residence using a variety of documentation including, but not limited to, voter registration cards, tax returns, homestead exemptions, and driver's licenses.

All four selected grantees and subrecipients included requirements pertaining to (1) primary residency, (2) the location or type of the damaged property, and (3) property ownership in their individual program action plans or other guidelines. Our analysis of selected CDBG-DR

<sup>34</sup>GAO-21-177.

<sup>35</sup>HUD OIG, *Top Management Challenges, Facing the U.S. Department of Housing and Urban Development in FY 2023* (Washington, D.C.: November. 8, 2022).

<sup>36</sup>GAO-21-177.

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### Covert Testing Results

To determine what vulnerabilities, if any, exist in Community Development Block Grant Disaster Recovery (CDBG-DR) disaster assistance applicant eligibility controls, we conducted covert investigative activities. Specifically we tested CDBG-DR grantee's internal controls associated with disaster-related benefits from individual-focused programs in Texas. The results of our covert tests are illustrative and are not generalizable to the universe of CDBG-DR applicants. We submitted:

- An online application to the Texas General Land Office (GLO) Homeowner Assistance Program (HAP) to test the residency requirement of the program by submitting a fictitious Fort Bend County property tax receipt of a non-residential address (a park). Texas GLO HAP program officials contacted the county to verify the property tax information. The officials stated the county could not locate the property information within the system and deemed the application ineligible for funding.
- An online application to the Texas GLO Homeowner Reimbursement Program (HRP) to test the residency requirement of the program by providing a non-existent residential address. After submitting the application during the submission period, a GAO criminal investigator posing as the applicant contacted Texas GLO HRP officials to request a status of the application. Program officials stated a technical error occurred with their system that prevented receipt of the application before the submission deadline. The GAO criminal investigator then escalated the issue with program officials requesting an exception to the deadline due to the system's technical issues. Program officials would not extend an exception to the deadline and did not accept the application. As a result, the application was deemed ineligible.

Source: GAO | GAO-23-104382

households showed weaknesses in the eligibility controls across all of these requirements.

- *Primary residency*—For the four CDBG-DR grantees and subrecipients we reviewed, households should serve as the primary residence or principal place of residence for the applicant at the time of the storm. Of the 8,260 households included in our review, we found 50 approved CDBG-DR households that appeared vacant at the time of the storms, according to the United States Postal Services (USPS) data.<sup>37</sup> We also found 83 households that indicated to USPS they were permanently moving homes prior to the date of the storm. If these households were vacant or were not the primary residence at the time of the storm, they would not be eligible to receive the CDBG-DR assistance they applied for, despite being approved for the selected homeownership programs. Both of these types of households were identified across all five of the homeowner programs in our review.
- *Location or type of damaged property*—Households approved for the selected CDBG-DR assistance programs must be located in specific counties and adhere to restrictions related to the type of property (e.g., single family home, mobile/manufactured housing unit). We found 22 approved CDBG-DR households that are high-rise, multi-unit rental housing complexes according to USPS, despite CDBG-DR requirements prohibiting assistance for commercial rental properties such as these. The 22 high-rise households were located across four of the five homeowner programs in our review. We also identified one approved household located in a county that was not eligible for CDBG-DR assistance.
- *Property ownership*—In Texas, selected grantees and subrecipients should only approve CDBG-DR funds for households that are owner-occupied at the time of the storm. We found 794 approved CDBG-DR households that applied to FEMA or SBA programs between 2016 and 2018 as renters, across all four selected Texas homeowner

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<sup>37</sup>A property is listed as vacant by the United States Postal Service (USPS) after a postal worker notes that mail has not been picked up or delivered for 90 days, or by carrier discretion.

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programs.<sup>38</sup> Despite having been approved, if these households were rented at the time of the storm, they would not be eligible to receive CDBG-DR assistance.<sup>39</sup>

## Unreported Income Identified

*Federal Register* notices that govern the 2017 and 2018 CDBG-DR grants require that no less than 70 percent of the aggregate CDBG-DR program assistance be used to support programs principally benefitting low- and moderate-income persons. Grantees have flexibility in how they meet this requirement.

CDBG-DR programs are focused on providing assistance to low- and moderate-income persons, however individual applicants may be above these income levels. HUD provides options on how grantees can design and implement controls to assess applicant income eligibility, including allowing CDBG-DR applicants to self-certify that their household income does not exceed the stated income limit. HUD calculates income limits based on the number of household members and Area Median Income (AMI), which is determined by where the property is located. For example, in 2018, the 80 percent income limit for a four-person household in Harris County, Texas was \$59,900. In Brazoria County, Texas, the 80 percent income limit for a four-person household was \$71,900, while it was \$41,700 in Union County, Florida.

HUD provides an online income determination workflow and an income calculator for grantees to use while making applicant income determinations. The workflow includes verifying applicant-provided information regarding household income. Additionally, HUD guidance to grantees and subrecipients on income determination states grantees must implement a policy of verifying a random sample of applicant

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<sup>38</sup>The USPS data we used in our review does not include information on renter status. The FEMA and SBA data we used to examine potential duplication of benefits risks includes a rental status indicator for the applicants to these programs. We matched approved households from our selected Texas CDBG-DR grantees and subrecipients to the FEMA and SBA beneficiary data to identify potential renters. While this identifies individuals who applied to one of these programs, because it would not identify an approved CDBG-DR applicant renter who did not apply to FEMA or SBA during the time period our data includes, our results are likely understated.

<sup>39</sup>Florida Department of Economic Opportunity's (DEO) HRRP oversees several CDBG-DR funded repair activities, some of which include multi-unit and rental properties. All of the properties included in our review were owner-occupied. Owner occupied unit program guidelines prohibit rental units and require primary residency at the damaged property. All HRRP activities prohibit assistance for second homes.

## Income Requirements and GAO Analysis

### Federal Register requirements:

Generally, no less than 70 percent of the aggregate Community Development Block Grant Disaster Recovery (CDBG-DR) program assistance must be used to support programs benefitting low- and moderate-income persons. Low- and moderate-income is defined as a total household annual gross income that does not exceed 50 and 80 percent of the Area Median Income (AMI), respectively, adjusted for family size, as published annually by the Department of Housing and Urban Development (HUD).

**GAO analysis:** We identified approved households from our selected grantees and subrecipients that reported zero income or did not report income information on their CDBG-DR application. We then used household members' name and date of birth to obtain Social Security numbers (SSN) using the Social Security Administration's Enumeration Verification System. We matched those SSNs to the U.S. Department of Health and Human Services' National Directory of New Hires, which catalogues quarterly wage and compensation information, to estimate annual household income. We then used our estimated annual household income to compare to the household AMI as defined by HUD.

Source: *Federal Register* notices, GAO analysis of HUD income determinations. Arcady/stock.adobe.com (puzzle); stas111/stock.adobe.com (icons). | GAO-23-104382.



household income self-certifications.

Grantees and subrecipients design and implement their own specific applicant income eligibility controls, meaning the processes vary across our selected homeowner programs. Verifying applicant-provided income information is one way grantees and subrecipients can ensure they are meeting HUD's requirements and reduce their vulnerability to fraud. Examples of ways our selected grantees and subrecipients verify applicant-provided income information include:

- Review of applicant-provided income documentation for household members, such as tax returns, multiple consecutive pay stubs, alimony checks, Social Security award letters reflecting current benefits, and tax statements, by the grantees and subrecipients or by a third party
- Review of household income information obtained from the applicant-provided income sources
- Attestations or self-certifications signed by the applicant or household members affirming that the information provided is correct
- Procedures to re-verify income eligibility status over time, such as if there is a year or more between the initial income eligibility determination date and the rehabilitation or reconstruction contract execution date.

We reviewed household income data from our selected grantees and subrecipients to assess vulnerabilities to fraud resulting from weaknesses in income eligibility controls. We first identified 2,200 households, out of 8,260 included in our review, that reported having no income or for which there was no income information in their CDBG-DR application data.<sup>40</sup>

Using National Directory of New Hires (NDNH) quarterly wage and compensation data, we were able to match income information and calculate an estimated household income for 635 of the 2,200 approved CDBG-DR households that reported no income or for which there was no

<sup>40</sup>The 2,200 record subset only includes households that reported having no income or did not report income to the CDBG-DR grantee or subrecipient, and for which we could connect household members using an assigned family identifier. One record was dropped from this analysis because it was missing the family identifier. For detailed information on our analysis, scope, and limitations, see appendix I.

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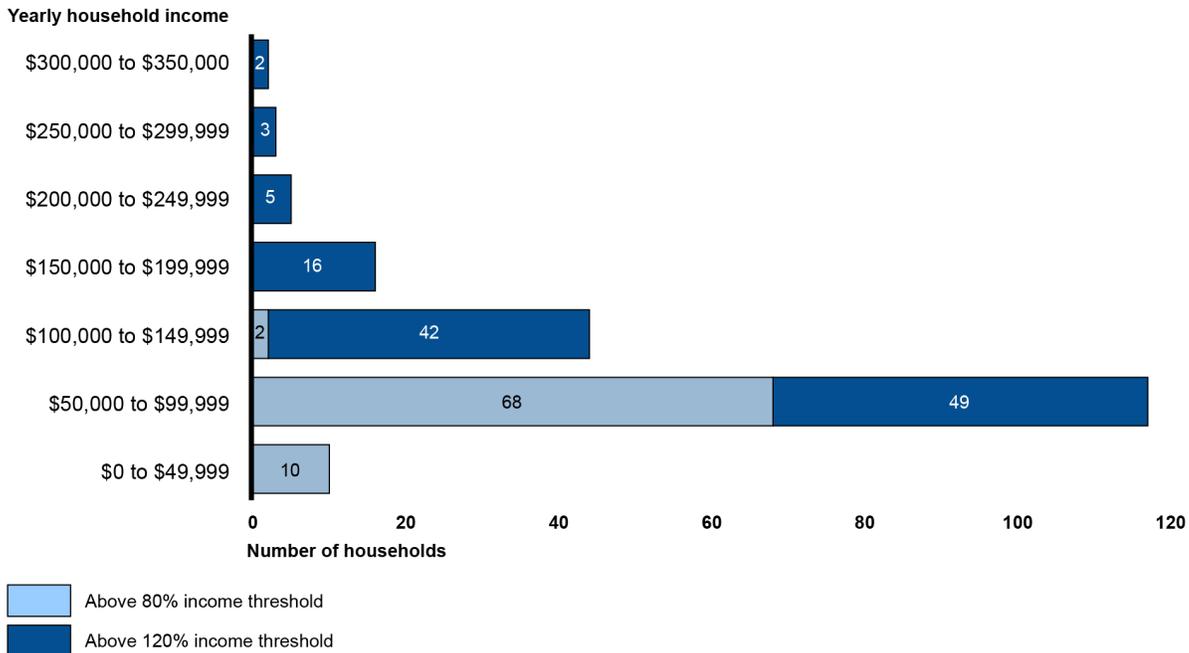
income information.<sup>41</sup> Our results indicate that some approved applicants potentially misrepresented or incorrectly reported their household income to the selected grantees and subrecipients, highlighting weaknesses in CDBG-DR income eligibility controls. Specifically, we found:

- Of the 635 households for which we were able to estimate annual income, 197 (31 percent) were over the 80 percent income threshold for a household of its size and property location.
- Of the 197 households over the 80 percent income limit, 117 (59 percent) were over the 120 percent income limit for a household of its size and property location, as shown in figure 6.
- Some households had income far over the income limit, such as two households with estimated household incomes over \$330,000. (see fig. 6).

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<sup>41</sup>Grantees do not have authority to access National Directory of New Hires (NDNH) data, and as such are not able to verify applicant-attested income information in the same way. For more information on our use of NDNH data, see appendix I.

**Figure 6: Distribution of Estimated Household Income for Selected Approved Applicants with Income above Annual Median Thresholds**



Source: GAO analysis of selected Community Development Block Grant Disaster Recovery grantee and subrecipient data. | GAO-23-104382

Note: Annual household income estimations based on wage information from Department of Health and Human Services National Directory of New Hires. Income was calculated as of the date of the households' CDBG-DR application.

We also analyzed NFIP policy claim data to determine whether the 117 households over the 120 percent income limit had a flood insurance policy with NFIP at the time of the storm. We identified 89 households out of 117 (76 percent) that did not have NFIP flood insurance at the time of the damage to the property, which could also make these households ineligible to receive CDBG-DR assistance.<sup>42</sup> Additionally, we found three

<sup>42</sup>According to the *Federal Register* notices that govern the 2017 and 2018 CDBG-DR grants, if these households were located in a floodplain and did not have flood insurance, either through National Flood Insurance Program (NFIP) or a private insurer, they would not be eligible to receive CDBG-DR assistance for the rehabilitation or reconstruction of a house. Confirming floodplain status and private flood insurance for households we examined was not part of the scope of our review, and as such we do not know whether or not these properties may have been ineligible to receive CDBG-DR assistance.

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households over the 120 percent income limit that had not reported their NFIP flood insurance when applying for CDBG-DR assistance.<sup>43</sup>

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**Incomplete and Inconsistent Applicant Data and Lack of Guidance Affect Eligibility Determinations and Limit HUD’s Ability to Identify Fraud Risks**

The four selected grantees and subrecipients in our review collected electronic data through their application and intake process to verify applicant eligibility. Data collected include names of applicants and household members, address, income, occupancy status, information regarding applicant homeownership, information regarding applicant primary residence, and applicant attestations about previously received disaster-related assistance from other agencies such as FEMA and SBA.

In conducting our analysis, we identified challenges related to the completeness of collected data and the format of applicant data among the four selected grantees and subrecipients. These data challenges limit HUD and its grantee and subrecipients’ ability to make accurate eligibility determinations and identify potential fraud and fraud risks across programs.

*Some applicant eligibility determination data were not collected or were missing*—In conducting our analysis, we found several instances where data relevant to applicant eligibility were not collected or were missing. HUD does not provide grantees and subrecipients guidance on what data to collect. Specifically, we found

- Three of the four grantees and subrecipients in our review did not collect applicant Social Security numbers (SSN). Using data that included SSN enabled us to conduct additional analysis with greater accuracy, such as matching applicants to the NDNH information about their income. HUD officials noted that the agency does not require grantees or subrecipients to collect personally identifiable information (PII), such as SSNs, of individual CDBG-DR applicants. HUD does not obtain PII for applicants because receiving and managing PII would pose a significant administrative burden, due to federal requirements for securing PII in the agency’s data system. HUD officials also noted that CDBG-DR grantees and subrecipients are subject to their own individual state and local requirements related to collecting and securing private information.
- One of the four selected grantees and subrecipients collected applicants’ age but not date of birth. Across all four of our selected

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<sup>43</sup>The three households were also identified in the NFIP claim analysis detailed earlier in this report in the results of our analysis of potential duplication of benefits fraud risks.

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grantees and subrecipients, 15 percent of approved applicants and household members we reviewed were missing date of birth information. Date of birth is an identifier that could help match applicant data to other data sources. Further, if a grantee or subrecipient does not collect SSN, date of birth can be used with other identifiers to verify the accuracy of matching. Without date of birth information, grantees are unable to calculate the age of each household member. As such, they cannot always reliably calculate household income to verify income eligibility information provided by the applicant.<sup>44</sup>

- 12 percent of approved households were missing information pertaining to the income of all household members, which is necessary to determine applicant eligibility and ensure that at least 70 percent of CDBG-DR funds are spent on programs that benefit low- and moderate-income individuals.<sup>45</sup>
- 52 percent of approved households were missing occupancy information and 53 percent were missing property ownership information, both of which are necessary to assess applicant eligibility.
- 12 percent of approved households were missing information that would indicate the damaged address is their primary residence, a requirement of our selected grantees and subrecipients. Without primary residence information, an applicant could apply for assistance for multiple properties across different states or counties, claiming more than one home as their primary residence. Additionally, because applicant data is not reviewed across the grantees and subrecipients, this presents CDBG-DR fraud risks that may not be fully mitigated at the grantee or subrecipient level.

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<sup>44</sup>As noted previously, our selected grantees and subrecipients are required to verify and calculate income levels of applicants to ensure that they meet CDBG-DR eligibility requirements. Applicants must provide not only their own income, but the income of other household members in the damaged property. Income level is impacted by the number of household members that are under the age of 18 or are elderly.

<sup>45</sup>We followed HUD's guidance on calculating estimated annual income.

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### Example of Limitations in Eligibility Checks as a Result of Missing Address Data

One selected grantee did not collect secondary address, such as unit number, from its applicants.

As a result, we encountered challenges in trying to determine whether a property was vacant or a household had moved prior to the disaster. For example, we identified five approved households that appear to be part of the same complex of homes, but for which the grantee did not collect secondary address information.

Without the unit number or other secondary identifier, each household matched to 267 potential records in the postal data. As such, we were unable to accurately match each of those households to their respective vacancy information or determine anything further about them.

Source: GAO analysis of United States Postal Service, grantee, and subrecipient data. | GAO-23-104382

In addition, some grantees and subrecipients did not collect complete address information. As shown in our analysis, household address is an identifier that can be used to match applicant provided information to other sources such as USPS data on vacant properties. Without complete address information, grantees and subrecipients face challenges assuring applicants' home ownership and primary residence. Even if they do have additional external data to use for verification purposes, grantees will be unable to verify address eligibility information if it is incomplete. See sidebar example from our analysis.

*Data elements were not collected consistently*—The selected grantees and subrecipients in our review did not collect data elements the same way. In addition to not providing guidance on what data elements grantees and subrecipients should collect from applicants, according to HUD officials the agency does not provide guidance on what format to use in data collection. Inconsistent data collection may make it more difficult for HUD or grantees and subrecipients to identify fraud risks across programs. Grantees and subrecipients collected address data in different formats. For example,

- Grantees and subrecipients allowed for differences in shortened formats including direction (e.g., North or N.) and address suffix (e.g., Street or St.). Even small differences in formatting can impede address matching across CDBG-DR programs to identify fraud risks, such as applicants applying to multiple CDBG-DR programs.
- For property ownership information, two of our four selected grantees and subrecipients collected whether the applicant reported owning the damaged property as a yes or no value. Another subrecipient collected this information as part of a variable that also identified if the applicant is a landlord or renter. One grantee oversaw two separate homeowner assistance programs; one such program collected property ownership information from its applicants, while the other did not. The same is true of applicant reported occupancy information. Property ownership and primary residency are eligibility requirements from our selected grantees and subrecipients. Having consistent information across programs and grantees can enable HUD and grantees to crosscheck reported information for upfront and continuing eligibility requirements.
- Information about the amounts of FEMA assistance CDBG-DR applicants reported is not collected consistently. One grantee and one subrecipient collected this information across two different fields. The assistance listed in these different fields would need to be combined

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to determine the total FEMA assistance amount. One grantee and one subrecipient collected the total assistance amount as a single field. The grantees and subrecipients also named the field containing the FEMA information inconsistently. The grantee that used a single data field oversees two individual homeowner assistance programs; these two programs did not label the FEMA information field the same way across their respective systems of record. Grantees and subrecipients would need additional documents and further standardization effort in order to link these fields from program to program.

The *Federal Register* notice(s) that govern these grants generally require that no less than 70 percent of aggregate CDBG-DR program assistance be used to support programs benefitting low- and moderate-income persons.<sup>46</sup> If HUD or its grantees and subrecipients do not collect applicant financial data, they are limited in their ability to assure overall accomplishment of this program goal. In addition, based on our review of four grantees and subrecipients, incomplete data and inconsistent data formats presented significant challenges in assessing eligibility determinations.<sup>47</sup> As our analysis shows, these issues can complicate grantee and subrecipient eligibility determinations. They also present challenges for HUD in assuring grantees and subrecipients are effectively managing fraud risks related to applicant eligibility across grantees and subrecipients.

While HUD provides guidance on methods of verifying income and other eligibility requirements, HUD does not provide guidance on data completeness and format, such as what information to collect and how to collect it, that would facilitate eligibility determinations within and across grantees and subrecipients. According to officials from three of the four selected grantees and subrecipients, additional guidance from HUD on what data to collect and how to collect that data would assist them in determining applicant determinations more effectively. Without guidance, grantees and subrecipients collect applicant eligibility data inconsistently, in part because they each use their own unique data systems. HUD officials noted that HUD does not prescribe the data that grantees and subrecipients must collect because they have different housing programs with different requirements and outputs. Nevertheless, while CDBG-DR homeowner assistance programs can differ across grantees and

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<sup>46</sup>See, for example, 83 Fed. Reg. 5844, 5855 (Feb. 9, 2018).

<sup>47</sup>See appendix I for additional information on our efforts to standardize applicant data from selected grantees and subrecipients.

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subrecipients, these differences do not preclude HUD from requiring that grantees collect complete and consistent data for eligibility determinations.

Federal internal control standards direct managers to use quality information to achieve the entity's objectives.<sup>48</sup> In doing so, management identifies the information requirements needed. Management should also externally communicate the necessary quality information to achieve the entity's objectives. External parties can include grantees and subrecipients, which administer CDBG-DR and collect eligibility data on applicants. Furthermore, our Fraud Risk Framework calls for agencies to design and implement data analytics and other control activities—such as combining data across programs from separate databases to facilitate reporting and analytics, if legally permissible—to prevent and detect fraud.<sup>49</sup> This cannot be accomplished without complete and consistent data, increasing CDBG-DR's vulnerability to fraud, waste, and abuse.

With guidance on data completeness and consistency, grantees and subrecipients would be better positioned to ensure they are collecting the right information in a way that facilitates eligibility determinations, and in so doing, assure related program goals are met and funds reach intended recipients. In addition, with complete and consistent data across grantees and subrecipients, HUD and its grantees would be better positioned to identify eligibility and fraud risks arising from applications across different grantees or subrecipients.

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<sup>48</sup>[GAO-14-704G](#).

<sup>49</sup>[GAO-15-593SP](#).

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## Network and Other Analyses Can Help HUD Manage Risks Associated with the Contracting Environment, but Better Data are Needed

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### Decentralized Approach and the Related Risk Environment

CDBG-DR funds flow through a number of entities—including contractors—to rebuild affected areas and provide crucial funding as part of the disaster recovery process.<sup>50</sup> According to HUD officials, when grantees and subrecipients utilize contractors for CDBG-DR programs, it can (1) enable disaster survivors to return to their homes faster; (2) enable smaller states with less robust economies to procure contracts from larger firms; and (3) assist disaster survivors who do not have the capacity or ability to hire and oversee a contractor directly.

However, this decentralized approach also creates an environment in which there are risks related to fraud and program delivery. Understanding that environment is critical to being able to strategically manage those risks and mitigate their likelihood and impact. For example, a leading practice identified in our Fraud Risk Framework is for programs to employ a risk-based approach to monitoring by taking into account internal and external factors that can influence the control environment.<sup>51</sup> Monitoring supports managers' decisions about allocating resources and can serve as an early warning system to help identify and promptly resolve issues through corrective actions and ensure compliance with

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<sup>50</sup>CDBG-DR contractors can include but are not limited to construction, home inspection, grant program administration, and other support services.

<sup>51</sup>The risk "environment" refers to contextual factors and stakeholders, either internal or external to an agency or program, which influence fraud risk management activities. External factors include other entities, such as contractors, different federal agencies, or state and local governments. The extent of managers' influence over control activities may affect the level of risk. Specifically, where managers do not have direct control and instead rely on external parties, such as other agencies or contractors to design and implement fraud controls, program managers may play more of an oversight role. Awareness of the risk environment is key to effective oversight of fraud risk management and program delivery in such situations. [GAO-15-593SP](#).

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existing legislation, regulations, and standards. Moreover, monitoring enables a program to quickly respond to emerging risks to minimize the impact of fraud.

In our May 2021 report, we identified several fraud and program delivery risks related to CDBG-DR's decentralized approach. For example, we found that there are risks associated with (1) grantees' varying levels of experience with the program, (2) complex and differing applicant eligibility requirements, and (3) vulnerability to contracting-related failures in program delivery. Specific to fraud risk, we found the decentralized environment makes CDBG-DR vulnerable to the following types of fraudulent schemes associated with contractors and subcontractors:<sup>52</sup>

- *Misrepresentation of qualifications or eligibility*—Contractors may provide false certification of qualifications or eligibility that may be relevant for certain disaster recovery contracts. For example, after having been debarred, such as for performance issues elsewhere, contractors may attempt to operate under a new name or reincarnate (contractor fraud risk).
- *Billing fraud*—Contractors may fraudulently bill for disaster recovery work—including demolition, restoration, or construction started but not yet completed—after taking a deposit and receiving CDBG-DR funds (contractor fraud risk).
- *Bid rigging*—Contractors may conspire to influence the procurement process to circumvent competitive bidding controls. This often involves contractors agreeing among themselves on bid prices and submitting bids reflective of that agreement to ensure a specific entity wins the contract (contractor fraud risk).
- *Bribery and Kickbacks*— Bribery and kickbacks are when a person offers, gives, receives, or solicits something of value as payment in order to influence an official act. Payments may take the form of money, goods, or services, and may be given directly to the bribe-

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<sup>52</sup>We identified four categories of fraud risks facing CDBG-DR from 2007 to 2020, including risks from disaster recovery grantees and their subrecipients; contractors and vendors; disaster assistance applicants; and general or cross-cutting participants, meaning that the fraud risk is not limited to a single category of CDBG-DR participant. For example, a homeowner could bribe an appraiser in exchange for an inflated damage estimate that repairs or other program benefits are dependent on, which presents a cross-cutting fraud risk. The types of contractors and subcontractors that are referred to in this report are ones involved in disaster recovery in areas such as damage assessment, construction/repair, inspection, and management. [GAO-21-177](#).

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taker or to someone designated by the bribe-taker (cross-cutting fraud risk).

- *Collusion in contract and bid manipulation*—A procurement employee and contractor acting together can manipulate the bidding process to benefit a favored contractor or supplier. For example, a grantee employee can change the minimum financial requirements of a request-for-proposal solicitation in order to qualify one contractor over others (cross-cutting fraud risk).

One characteristic of several of these fraud schemes is that they rely on relationships or undisclosed connections to carry out the scheme. According to literature, fraud is often committed through arrangements between and among individuals and entities.<sup>53</sup> These relationships are best understood and identified by their unique, collective patterns as opposed to looking at them as isolated actors or events.<sup>54</sup> Accordingly, traditional fraud analytic techniques such as data matching and mining are not as well suited to understanding the risk environment and monitoring these relationships.

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## Network Analysis Is a Key Tool for Understanding and Monitoring the Environment

Network analysis—a social science and forensic audit methodology—is an analytic approach for identifying and understanding patterns of connections and relationships that can also indicate certain types of risk. More specifically, network analysis is a set of quantitative and graphical methods to identify underlying patterns and structures in a complex set of relationships among many entities such as countries, organizations, or individuals.<sup>55</sup>

Network analysis is a tool used in audit, law enforcement, financial and banking sectors, and other areas to identify, investigate, and manage risks from fraud and other wrongdoing. The utility of network analysis to

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<sup>53</sup>Bart Baesens, Veronique Van Vlasselaer, and Wouter Verbeke, *Fraud Analytics Using Descriptive, Predictive, and Social Network Techniques: A Guide to Data Science for Fraud Detection* (Hoboken, New Jersey: Wiley & Sons, 2015).

<sup>54</sup>J.R. Nicolas-Carlock and I. Luna-Pla. *Conspiracy of Corporate Networks in Corruption Scandals* (2021).

<sup>55</sup>GAO, *Student and Exchange Visitor Program: DHS Can Take Steps to Manage Fraud Risks Related to School Recertification and Program Oversight*, [GAO-19-297](#) (Washington, D.C.: Mar. 18, 2019).

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## Selected Network Analysis Concepts and Measures Relevant to Fraud and Risk Management

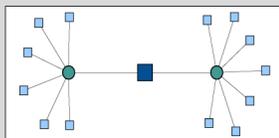
### Centrality measures

Centrality measures quantify the importance of a node (individual or entity) in a social network. Where fraud is present, centrality measures are useful to fraud prevention and detection by identifying higher risk relationships and connections with other nodes.

Numerous centrality measures have been developed, including degree centrality (a count of a node's number of direct connections), closeness (the average path length from a given node to all other nodes), and eigenvector centrality (an aggregation of the degree centrality of a given node's direct connections). In our analysis, we focus on another centrality measure, betweenness centrality.

### Betweenness centrality score

Betweenness centrality scores identify an entity's position within a network in terms of its ability to make connections to other pairs or groups in a network. These entities generally hold a favored or powerful position in the network and have a greater amount of influence over what happens in a network. In the figure below the blue box is an entity with a high betweenness centrality score.



Source: GAO. | GAO-23-104382

### Prominent intermediaries (key players)

Prominent intermediaries, or key players, are the set of network members whose removal will most disrupt a network, or who can most efficiently diffuse information through a network.

Source: Omar, Normah, Ismail bin Mohamed, Zuraidah Mohd Sanusi, and HENDI YOGI PRABOWO. "Understanding Social Network Analysis (SNA) in Fraud Detection." *Recent Trends in Social and Behaviour Sciences*, (2014). GAO, Tax Gap: IRS Can Improve Efforts to Address Tax Evasion by Networks of Businesses and Related Entities, [GAO-10-968](#) (Washington, D.C.: Sept. 24, 2010). GAO analysis | GAO-23-104382

prevent and detect fraud is supported by research on bribery, contract manipulation, conflicts of interest, price-fixing, collusive bidding and corruption within contracting, including construction contracts, among other areas.<sup>56</sup> As such, network analysis is a key tool that can aid program managers in identifying and monitoring their environments, as well as detecting and mitigating risks.

We identified numerous network analysis concepts and measures relevant to fraud and understanding the risk environment through a search and review of literature and our prior work. One such concept relates to the centrality of an individual or entity (node) in the network. Centrality measures can highlight different types of risk, including fraud risk in decentralized environments, to support risk-based monitoring. In a network, each entity will be directly connected to one or more entity, and indirectly connected to many others. See sidebar for definitions of selected network analysis concepts and measures we focus on in this review.

Research has found the following regarding risks related to an entity's centrality in a network:

- Betweenness centrality scores indicate the degree to which an entity, such as a contractor or subcontractor, spans and connects communities in the broader network, through which they can be aware of or influence behavior of other entities. One entity's ability to connect to different communities can be positive or negative. In our analysis, we focus on the centrality measure of betweenness.

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<sup>56</sup>For more information on the research we reviewed in this area, see appendix I.

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Research shows that entities that have high betweenness are recognized as important to risk management because their position in the network may enable them to coordinate and communicate with or influence larger numbers of potential participants.<sup>57</sup> Further, this research goes on to state that betweenness centrality can be important in a fraud context because if a high betweenness node is “infected by fraud from one community [in a network], fraud can easily pass on toward the other communities.”<sup>58</sup> In another study of fraud schemes regarding the context of fraud risk, this positional ability is relevant to crimes such as bid rigging, where entities must know others within their immediate network—as well as in some cases those in other networks—well enough to share sensitive information, coordinate bidding, and maintain secrecy about their actions.<sup>59</sup> Having a high betweenness score does not mean an entity is more likely to commit fraud. However, because of the greater potential impact of its actions in the network, an entity with a high betweenness score represents a key focus for risk-based monitoring.<sup>60</sup>

- Prominent intermediaries or “key players” are influential individuals or entities in a network that have high levels of betweenness centrality.<sup>61</sup> A contractor that is a key player based on betweenness centrality score may participate in many contracts, and thus connect or influence a wide array of entities. For example, a general contractor working across several grantees with a wide variety of projects and many different types of subcontractors for specialized tasks is more likely to be a key player than a mold remediation contractor working with a few subcontractors. A contractor performing specialized work

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<sup>57</sup>Bart Baesens, Veronique Van Vlasselaer, and Wouter Verbeke, *Fraud Analytics Using Descriptive, Predictive, and Social Network Techniques: A Guide to Data Science for Fraud Detection* (Hoboken, New Jersey: Wiley & Sons, 2015).

<sup>58</sup>Baesens, *Fraud Analytics*, 244- 246.

<sup>59</sup>Liang Xiao, Kunhui Ye, Junhong Zhou, Xiaoting Ye, and Ramadhani Said Tekka. “A Social Network-Based Examination on Bid Riggers’ Relationships in the Construction Industry: A Case Study of China.” *Buildings* 2021, 11, 363. This study considered fraud schemes in the Chinese construction industry.

<sup>60</sup>Risk is a function of likelihood and impact. While betweenness centrality measures do not, in and of themselves, indicate the likelihood of fraud or other risks, they do provide critical information on potential impact.

<sup>61</sup>While “key players” also have a technical definition within the broader study of network analysis and key player metrics, for the purposes of this report, we use this term to refer to these specific contractors and subcontractors with high levels of betweenness centrality.

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may have a smaller set of partners and, as a result, a lower betweenness centrality score.

Key players are also the set of network members who (1) if they were to leave or be removed, would most disrupt a network or (2) are in a position to most efficiently influence or diffuse information through a network. If a key player contractor were to become insolvent for example, there would be a wider array of connected grantees, contractors, and subcontractors affected, which could ultimately affect program delivery. Further, key players are more readily able to share information that could heighten fraud risk. For example, one study of contractors that had engaged in collusion found high betweenness centrality among several small groups involved in collusive bidding within the broader network, connected by a key player in a critical position to facilitate the collusion.<sup>62</sup> Being a key player does not mean an entity is more likely to commit fraud. However, awareness of contractors that hold key player positions is important to risk-based monitoring given the potential impact they may have across the network.

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## Our Analysis of CDBG-DR Contracting Network Demonstrates Utility of Network Analysis for Risk-Based Monitoring

Our analysis of the CDBG-DR contracting network identified key players who—because of the greater potential impact of their connections and influence—are important to risk-based monitoring.<sup>63</sup> Specifically, we identified 46 contractors and subcontractors as key players within a network of 1,324 contractors, subcontractors, grantees, and subrecipients based on their multiple direct and indirect relationships to other contractors, subcontractors, and grantees. Because neither HUD nor its grantees collect, share, or analyze information about CDBG-DR contractors and subcontractors across the network, these connections and the prominence of certain entities within the network may be unknown to HUD and its grantees. Our analysis also allowed us to identify where contractors associated with ongoing and remediated investigations of fraud, waste, and abuse are in the network. We found

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<sup>62</sup>Xiao, Ye, Zhou, Ye, and Tekka, *A Social Network-Based Examination*.

<sup>63</sup>We analyzed contract documentation and award data from our four CDBG-DR grantees and subrecipients (CDBG-DR contracting network) to construct the network and develop related measures for 257 prime contractors and 1,063 subcontractors associated with 2017 and 2018 CDBG-DR funds. The contract data we requested and analyzed included construction, support, and administrative contractors. In our selected network, nodes are the entities giving or receiving contracts. We refer to “key players” as those contractors and subcontractors with high levels of betweenness.

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Our Analysis of CDBG-DR Contractors and Subcontractors Identified as Key Players in Positions of High Influence

that among five such contractors, three are key players in the network. Identification of these contractors in the network is particularly relevant for risk-based monitoring because it provides information on both the likelihood and impact of risk. Our analysis of selected CDBG-DR contracting networks demonstrates how HUD and its grantees could use this type of analysis to understand the contracting environment for risk-based monitoring.

Contractors and subcontractors that are key players have a greater amount of influence over what happens in a network, not only because of their numerous direct connections to others, but also because of their indirect connections.<sup>64</sup> Having a high betweenness score or being a key player does not mean an entity is more likely to commit fraud. Entities with those characteristics can have a greater impact, however, and are thus important to risk-based monitoring.

To illustrate this analysis in the CDBG-DR network, we calculated betweenness centrality scores for 257 prime contractors and 1,063 subcontractors associated with 2017 and 2018 CDBG-DR grant funds and then focused our analysis on entities with the highest scores (key players). We identified 16 contractors and 30 subcontractors that are key players in the CDBG-DR network based on these scores.<sup>65</sup>

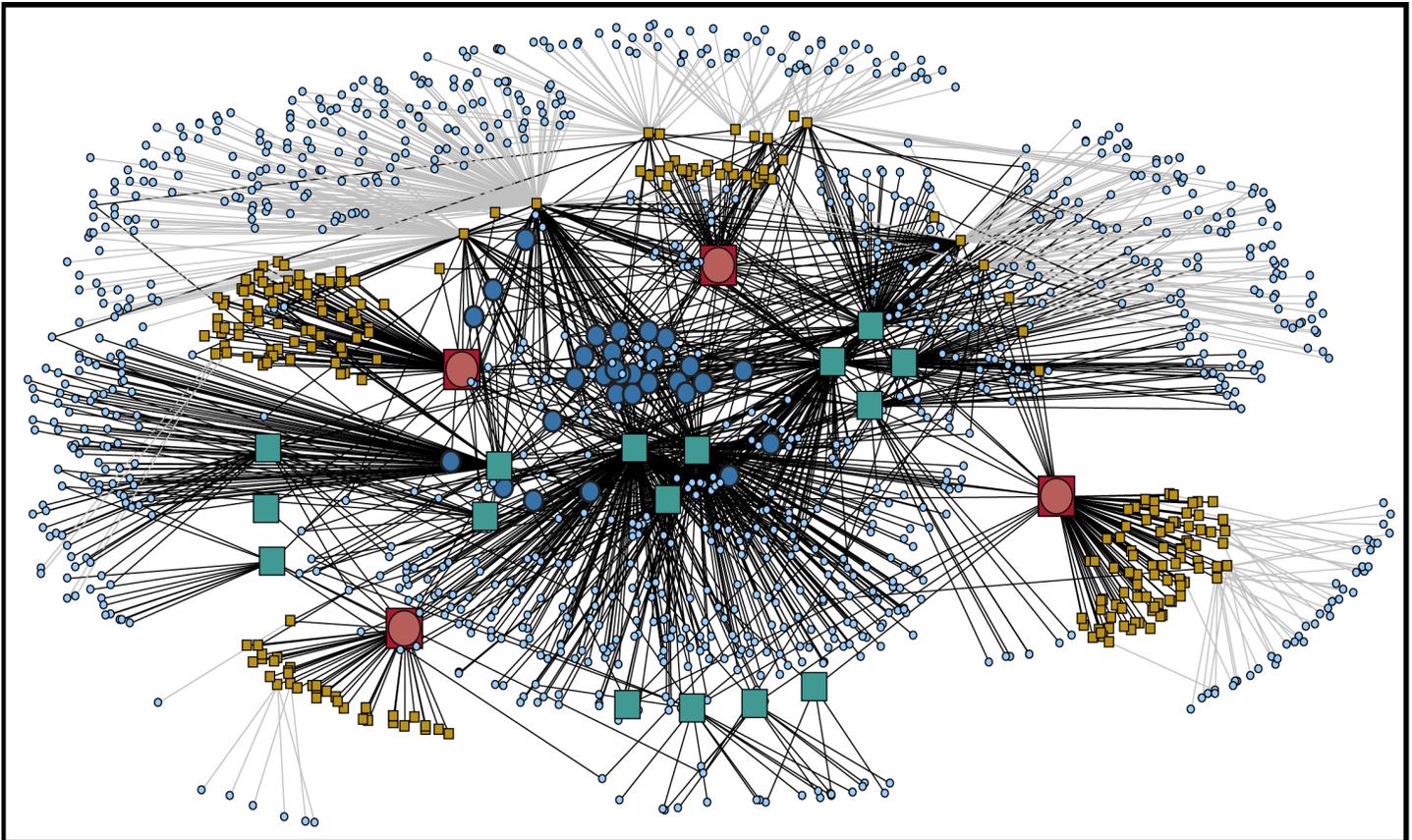
Figure 7 illustrates how the 16 key player contractors (out of 257) have the potential to influence the entire contractor and subcontractor network. Specifically, these 16 key player contractors are able to reach the majority of entities in the network through either their direct connections or first-degree indirect connections (connections of their connections).

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<sup>64</sup>Direct connections are the links that go directly from one entity to another. Indirect connections are connections where a main entity reaches other target entities through entities on the path between the main target entity. Omar, Normah, Ismail bin Mohamed, Zuraidah Mohd Sanusi, and Hendi Yogi Prabowo. "Understanding Social Network Analysis (SNA) in Fraud Detection." *Recent Trends in Social and Behaviour Sciences*, (2014).

<sup>65</sup>We identified the number of contractors (16) and subcontractors (30) that had the highest betweenness centrality scores in the selected grantee and subrecipient network. We examined the distribution of betweenness centrality scores and identified a cut off score of 1.25 to identify the 16 contractors with the highest betweenness centrality scores and based on an examination of the distribution of scores across all contractors. We also examined the distribution of betweenness centrality scores for subcontractors and identified a cut off score of 0.365 to identify the 30 subcontractors.

**Figure 7: Map of Key Players in Selected Community Development Block Grant Disaster Recovery (CDBG-DR) Contract Network, 2017 and 2018 CDBG-DR Grant Funds**



**Entities**

- Grantees and subrecipients
- Prime contractors (16 key players)
- Prime contractors (241)
- Subcontractors (30 key players)
- Subcontractors (1,033)

**Connections**

- Direct connections and first-degree indirect connections of the 16 key player contractors
- Second-degree indirect connections of the 16 key player contractors

Source: GAO analysis of selected grantees' and subrecipients' contractor and subcontractor data. | GAO-23-104382

The 16 key player contractors have connections that enable increased influence on entities throughout the contractor and subcontractor network. These key player contractors also work across multiple grantees and subrecipients. For example, among the 16 contractors,

- 3 had contracts with all 4 of our selected grantees and subrecipients;
- 6 had contracts with 3 of them; and

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Our Analysis of CDBG-DR Contractors Associated with Ongoing and Remediated Investigations of Fraud, Waste, and Abuse and Their Positions in the Network

- 7 had contracts with at least 2 of them.

Among the 30 subcontractors that are key players, 7 work directly with 2 grantees and subrecipients and 23 work directly with 1 of our selected grantees and subrecipients. While the subcontractor key players do their work mainly with one or two grantees or subrecipients, these subcontractors have connections to many of the key player contractors that in turn work across multiple grantees and subrecipients.

Our analysis of contractors associated with ongoing and remediated investigations of fraud, waste, and abuse further illustrates how network analyses could be used by HUD and its grantees to understand the potential impact of fraud or other wrongdoing in the contracting environment. Having such information facilitates monitoring and the ability to mitigate potential harm and ensure relief funds are provided as intended.

Grantees and subrecipients in our review maintain documentation on allegations of fraud, waste, and abuse associated with CDBG-DR funds that they are investigating.<sup>66</sup> Based on this information and information on HUD OIG closed investigations, we identified five CDBG-DR contractors that (1) were under investigation by our selected grantees or HUD OIG as a result of allegations of fraud, waste or abuse, as of December 2022 or January 2023, respectively or (2) had had an allegation of fraud, waste, or abuse remediated as of January 2023.<sup>67</sup> These cases involved risks related to potential fraud, conflicts of interest, and waste and mismanagement. To illustrate how such information could be incorporated into a network analysis, we then examined the positions of these contractors within the network, as well as their connections to our selected grantees and subrecipients.<sup>68</sup> Our analysis found that three of

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<sup>66</sup>Selected grantees and subrecipients maintain this documentation to meet requirements to refer instances of fraud, waste, or abuse to the HUD OIG Fraud Hotline. Waste and abuse do not necessarily involve fraud or illegal acts. However, they may be an indication of potential fraud or illegal acts and may still impact the achievement of defined objectives. [GAO-14-704G](#).

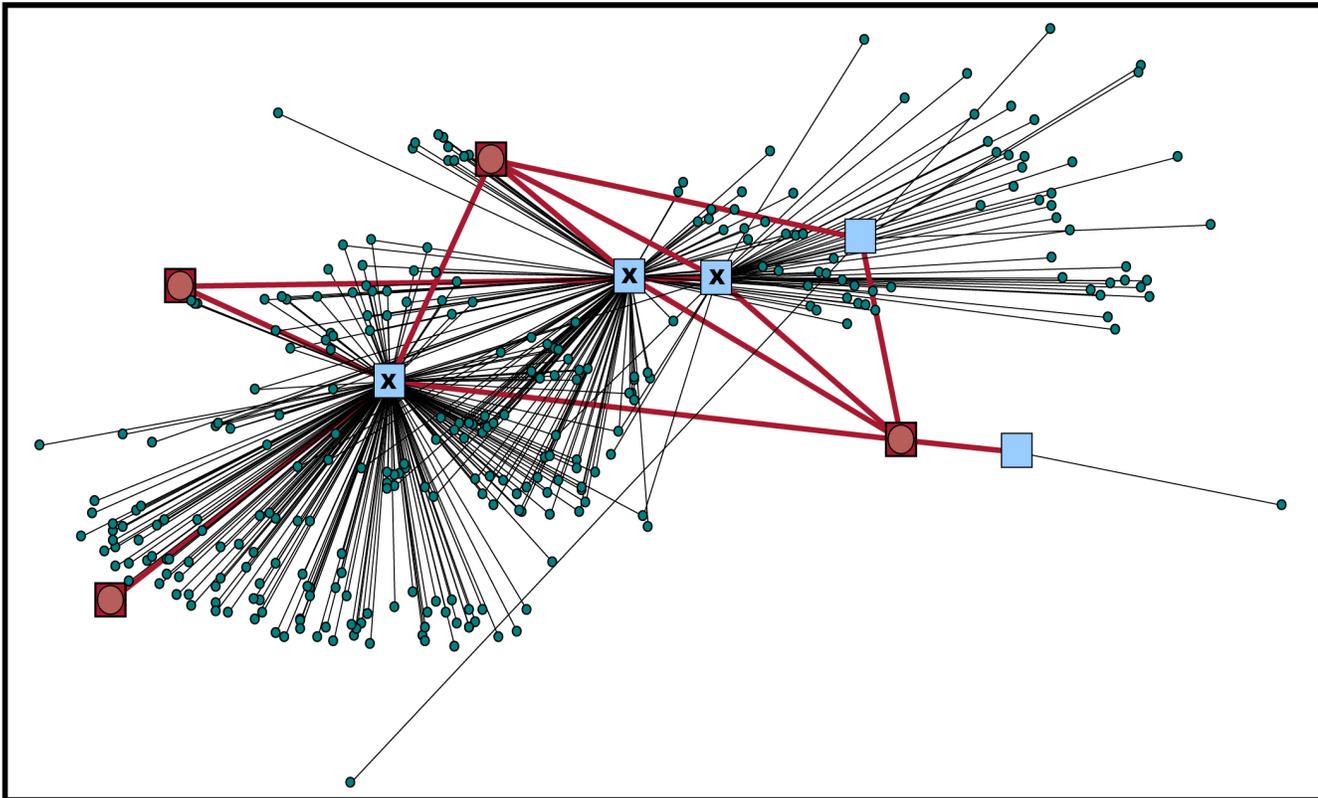
<sup>67</sup>We obtained information on allegations received between January 2020 and December 2022, along with the status of the allegation. We also obtained a list of closed CDBG cases from HUD OIG for the period June 2020 to September 2022.

<sup>68</sup>Risk is a function of likelihood and impact. Analysis of contractors associated with ongoing and remediated investigations of fraud, waste, and abuse provides context on the likelihood of risk. Examining them in the context of their network centrality and their direct ties to multiple grantees and subrecipients provides information on their potential impact.

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the five contractors were also key players in the CDBG-DR contracting network and all three worked for three or more grantees or subrecipients. Figure 8 shows these five contractors and their connections to the grantees and subrecipients they are working for. The figure also highlights the three that are key players.

**Figure 8: Network Map of Contractors Associated with Ongoing and Remediated Investigations of Fraud, Waste, and Abuse from Selected Community Development Block Grant Disaster Recovery (CDBG-DR) Grantees and Subrecipients, 2017 and 2018 CDBG-DR Grant Funds**



**Entities**

- Grantees and subrecipients
- Prime contractors (5 contractors associated with ongoing and remediated investigations of fraud, waste, and abuse)
- X Key player
- Subcontractors

**Connections**

- Connection between grantee or subrecipient and contractors associated with ongoing and remediated investigations of fraud, waste, and abuse
- Connection between contractor associated with ongoing and remediated investigations of fraud, waste, and abuse and subcontractors

Source: GAO analysis of selected grantees' and subrecipients' contractor and subcontractor data. | GAO-23-104382

Note: Contractors associated with ongoing and remediated investigations of fraud, waste, and abuse are those that (1) were under investigation by our selected grantees or HUD OIG as a result of allegations of fraud, waste, or abuse, as of December 2022 or January 2023, respectively or (2) had had an allegation of fraud, waste, or abuse remediated as of January 2023.

**Impact of Key Player Removal or Wrongdoing**

As indicated by our analysis, contractors that are key players are more likely to be working for multiple grantees. Similarly, key player subcontractors are more likely to be connected to multiple grantees through their connections to multiple contractors. HUD, its grantees, and

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subrecipients may be unaware of the extent to which grantees and subrecipients share contractors and subcontractors. These connections may offer efficiencies in terms of contractors' awareness of CDBG-DR requirements. However, their departure or removal could also put grantee programs at increased risk if one of these key contractors or subcontractors is unable to deliver on contracted requirements.

With respect to fraud, waste, abuse, and mismanagement, the extent of the impact from key players with indicators of such activity may be greater and affect multiple grantees and contracts. While key players' ability to influence or diffuse information can lead to positive outcomes, fraud risk is heightened when information on control vulnerabilities or wrongdoing is shared across the network. In instances where key players in a network are involved in fraud, waste, abuse, or mismanagement, literature notes that their connections to others in the network can, under certain circumstances, facilitate a "contagion" effect by sharing details on these schemes or how to circumvent controls. We previously reported on a study that found a small number of key players were the most successful in their ability to carry out fraudulent activities and may be associated with a leadership role in a criminal network.<sup>69</sup> Awareness of key players who are associated with ongoing and remediated investigations of fraud, waste, and abuse is important for risk-based monitoring because it provides information on both the likelihood and impact of risk in a distributed environment. While connections do not prove risk, they can provide important information about risks that can inform the prioritization of administrative and investigative resources. Further, while our analysis focused on selected grantees and recipients, the CDBG-DR contracting network is broader. Analysis of the full network of contractors working on CDBG-DR projects across all grantees could reveal additional connections and risks.

### HUD's Current Risk Management Approach May Overlook Contractors that Are Key Players in the Network

HUD's current approach to identifying and managing risks focuses on monitoring individual grantees and may not fully assess risks across the CDBG-DR contracting environment. These risks would not necessarily be apparent to HUD or its grantees based on HUD's current approach to monitoring and data collection. HUD conducts an annual risk analysis assessment of its grantees to target its resources to grantees that pose the greatest risk. Based on the 2021 Risk Analysis Monitoring Strategy,

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<sup>69</sup>GAO, *Tax Gap: IRS Can Improve Efforts to Address Tax Evasion by Networks of Businesses and Related Entities*, [GAO-10-968](#) (Washington, D.C.: Sept. 24, 2010).

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all CDBG-DR grants are determined to be high-risk and thus monitored at least annually. The specific requirements for monitoring activities of CDBG-DR grantees are detailed in HUD's Community Planning and Development Monitoring Handbook (Handbook).<sup>70</sup>

The Handbook outlines 19 questions for consideration during monitoring related to procurement, including questions regarding procurement standards utilized, if the grantee has posted certain procurement information to its website, and a sample of procurement transactions to be reviewed. For the sample of procurement transactions, HUD monitors:

- if the period of performance or the date of completion is clear;
- to confirm that certain contract types are not used;<sup>71</sup> and
- to confirm if contracts included clauses required by federal statutes, executive orders, and implementing regulations, if applicable.

The Addendum Guide for 2017 disasters outlines additional monitoring. Specific to procurement, the Guide calls for HUD to determine if the reviewed contract or agreement has incorporated performance requirements and liquidated damages. The Handbook recognizes that it is unlikely HUD can monitor all of a grantee's activities, projects, or functions and as a result, sampling is generally expected to form the basis for conclusions from monitoring. The Handbook notes that reviewers should consider the following when selecting non-random samples:

- unresolved problems identified in previous monitoring,
- any new types of activities being undertaken, and/or

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<sup>70</sup>HUD's Community Planning and Development Monitoring Handbook states that monitoring is HUD's principal means to ensure that HUD-funded programs are carried out efficiently and effectively. Chapter 6, Exhibit 6-8 of the Community Planning and Development Monitoring Handbook provides the Guide for Review of Procurement for CDBG-DR. Monitoring may cover other topics such as reviews of infrastructure, economic development, or new construction housing, which are outside the scope of this audit. In addition, Exhibit 6-14 is an addendum guide for review of CDBG-DR 2017 disasters, which also has selected review questions related to procurement.

<sup>71</sup>Cost plus a percentage of cost and percentage of constructions cost contracts are disallowed. 24 C.F.R. § 570.489(g).

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- the extent that any activities are considered high risk.<sup>72</sup>

We analyzed the 11 HUD monitoring reports for our selected grantees and subrecipients. Of the 16 contractors we identified as key players, HUD included seven of them in its sample of procurement transactions reviewed during monitoring.<sup>73</sup> Of the 30 subcontractors we identified as key players, HUD included none of them in its sample of procurement transactions reviewed during its monitoring of our selected grantees and subrecipients. Among the five contractors associated with ongoing and remediated investigations of fraud, waste, and abuse, three were included in HUD's monitoring of procurement transactions during this time.

Looking specifically at contractor risk from the grantee perspective may miss risks posed by contractors that work across grantees. For example, one subrecipient noted contractor capacity as a risk factor. For disaster recovery contracts in that subrecipient's state, capacity becomes an issue when the same contractors are used across the state's multiple different jurisdictions. This subrecipient further noted that it is not aware of work its contractors or subcontractors may have for other CDBG-DR grantees, and there are no checks for whether a contractor's capacity has been reached across the different jurisdictions. This subrecipient also noted bonding as a related risk factor.<sup>74</sup> For example, a contractor with a bonding capacity for \$10 million is at capacity with a \$5 million contract with one city and another \$5 million contract with the state. There are no checks to see if total bonding capacity has been reached. According to the subrecipient, this presented problems in the past where one contractor was awarded a \$75 million project for one city in the state while also working with the county that the city is located in. That contractor went bankrupt and left the city in debt. When the city went to make a claim on the bond, the county had already filed. The city was left

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<sup>72</sup>The Guide for Review of Procurement notes that for state grantees that direct their local governments or subrecipients to follow procurement requirements at 2 C.F.R. §§ 200.318 – 200.327, the sample of procured transactions should include at least one procurement conducted by a non-state entity.

<sup>73</sup>One of these contractors was reviewed twice in separate monitoring activities.

<sup>74</sup>Bonds—which generally apply to construction contracts—are guarantees issued by providers, such as individuals or surety companies, to ensure that projects will be completed as required and that suppliers and subcontractors will be paid if a bonded prime contractor defaults. A surety is an individual or corporation legally liable for the debt, default, or failure of a principle to satisfy a contractual obligation.

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uncompensated and all projects associated with this contractor also remained uncompleted.

Selected grantees in our review stated that they not aware of work their contractors or subcontractors may have for other CDBG-DR grantees or subrecipients across the state or other states. Further, one grantee also noted that they are not aware of any unresolved problems identified in previous monitoring by other grantees because the results of HUD's monitoring are not shared with other grantees. With respect to HUD and grantees' ability to make risk-based decisions for monitoring, transparency into contracting across grantees and aggregate award values can reveal a different risk profile compared to the grantee level.

Our analysis of key players identified contractors who received awards from multiple grantees or subrecipients within and across two U.S. states. Among the top 7 key player contractors, three had contracts with all four selected grantees and subrecipients. The other four had contracts with three of the selected grantees and subrecipients (see table 3). Key player contract award values at the grantee and subrecipient level ranged from about \$2.5 million to about \$201 million. However, when considered across all selected grantees and subrecipients, the total contract award values for the key player contractors ranged from approximately \$120 million to approximately \$310 million. Our analysis of key players in the CDBG-DR network demonstrates how HUD and its grantees can gain insights into such risks. That insight could then be used to inform other assessments, such as those associated with capacity and bonding.

**Table 3: Top 7 Key Players - Contractor Characteristics and Approximate Award Totals Within and Across Selected Community Development Block Grant Disaster Recovery (CDBG-DR) Grantees and Subrecipients**

<b>Contractor Characteristics</b>	<b>Grantee/Subrecipient</b>	<b>Contract Range by Grantee/Subrecipient and Approximate Total (in millions)</b>
Contractor A	1	150-175
• 4 grantees/subrecipients	2	25-50
• 8 contracts	3	50-75
	4	25-50
		<b>\$310 million</b>
Contractor B	1	200 – 225
• 4 grantees/subrecipients	2	25 – 50
• 7 contracts	3	50 – 75
	4	0 – 25
		<b>\$300 million</b>
Contractor C	1	75 – 100
• 4 grantees/subrecipients	2	25 – 50
• 8 contracts	3	50 – 75
	4	25 – 50
		<b>\$210 million</b>
Contractor D	1	75 – 100
• 3 grantees/subrecipients	2	25 - 50
• 7 contracts	4	75 – 100
		<b>\$210 million</b>
Contractor E	1	75 – 100
• 3 grantees/subrecipients	2	25 – 50
• 6 contracts	4	0 – 25
		<b>\$120 million</b>
Contractor F	1	125 – 150
• 3 grantees/subrecipients	2	25 – 50
• 5 contracts	4	25 – 50
		<b>\$210 million</b>
Contractor G	1	75 -100
• 3 grantees/subrecipients	2	25 – 50
• 8 contracts	4	25 – 50
		<b>\$150 million</b>

Source: GAO analysis of data and contract documentation from Texas General Land Office, Harris County, and the City of Houston in Texas and the Florida Department of Economic Opportunity associated with 2017 and 2018 CDBG-DR grant funds. | GAO-23-104382

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Our analysis of contractors that are key players illustrates how HUD and grantees could better understand the CDBG-DR-wide risk environment and be better positioned to monitor it. A contractor or subcontractor may appear to be low risk from a grantee-specific review, but when considered from a network-wide perspective, the risk picture may change. The Fraud Risk Framework directs agencies to design and implement specific control activities, including data analytics, to prevent and detect fraud. Specifically, leading practices direct agencies to employ a risk-based approach to monitoring by taking into account internal and external factors that can influence the control environment—such as decentralized program delivery.

In order for HUD to gain greater visibility into the decentralized CDBG-DR contracting network and its risks, it would need data on contracts and subcontracts across grantees and subrecipients. Generally, grantees are required to post awarded contract information on their websites including a copy of contracts the grantee has procured directly, a description of services or goods currently being procured by the grantee, and a summary of all procured contracts, including those procured by the grantee, local government, or subrecipients.<sup>75</sup> Compliance with this requirement is assessed via monitoring by HUD. Further, HUD's Disaster Recovery Grant Reporting (DRGR) System can collect data about contractors including their name, type of organization, Data Universal Numbering System (DUNS) number, and address information.<sup>76</sup> However, these data are not collected or maintained in a way that readily enables network analysis.

To conduct our analysis, we created a dataset of contractors and subcontractors through a multi-step review of contract award documentation received from each grantee in our review. Further, when we discussed data collection to detect and prevent bid rigging and collusion, one grantee told us that the information required to be posted on its website is not adequate to do analyses to prevent or detect fraud risk. The grantee went on to note that additional information would be needed identifying all respondents to solicitations including those without an award and being able to mine those solicitations. The grantee further noted there is not definitive guidance on how frequently to collect the data

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<sup>75</sup>See, for example, 83 Fed. Reg. 5844, 5860 (Feb. 9, 2018).

<sup>76</sup>The Data Universal Number System (DUNS) number is a unique nine-digit identifier for businesses provided by Dun & Bradstreet.

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to meet the requirement for posting contract award data nor what to do with the data collected or how often HUD would conduct assessments.

DRGR is primarily used by grantees to access grant funds and report performance accomplishments for grant-funded activities. HUD has reported that it intends to explore opportunities to increase data sharing through its Disaster Recovery Data Portal (DRDP). According to HUD, the DRDP is intended to support data sharing, such as between CDBG-DR grantees and FEMA to prevent duplication of benefits. As HUD develops the DRDP, it offers opportunities for data collection and sharing among grantees to facilitate network analysis and enhance transparency into the decentralized risk environment.

With such information from DRDP or DRGR to facilitate network analysis, HUD and its grantees would be better positioned to make sampling decisions for monitoring that consider the wider risk environment. However, HUD has not implemented guidance for grantees and subrecipients on collecting contractor and subcontractor data, and its monitoring guidance does not include information for sample selection that considers CDBG-DR-wide network risks. Without a risk management approach appropriate to the decentralized environment in which CDBG-DR and its grantees operate and the corresponding guidance on data collection, HUD may miss opportunities to identify areas of increased fraud and program delivery risk. Without the data to support such analysis, or sampling guidance for monitoring that considers the wider environment from such analysis, HUD and its grantees are not best positioned to make risk-based decisions to prioritize administrative and investigative actions.

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Current Contractor and Subcontractor Data Collection Does Not Assure Contractors are Not Debarred, Suspended, or Excluded

HUD guidance states that “grantees must not make any award to any contractor or organization which is debarred or suspended, or is otherwise excluded from participating in Federal assistance programs.”<sup>77</sup> The guidance goes on to state that “Grantees *can* (emphasis added) check the federal SAM database [GSA’s System for Award Management (SAM)].”<sup>78</sup> The guidance, however, does not provide standards or requirements for collecting data to assure compliance with the guidance.

Contractors are not required to be a registered entity in SAM to receive contracts using CDBG-DR funds. However, all federally debarred or suspended contractors are to be entered into SAM—even those that are not registered.

We leveraged the same dataset that we used for network analysis to identify whether contractors and subcontractors receiving contracts using CDBG-DR funds may have been debarred, suspended, or excluded. To develop the list of contractors and subcontractors for this analysis, we obtained business name, business address, and contact names, among other data elements, from the four selected grantees and subrecipients.<sup>79</sup> Although the four selected grantees and subrecipients collect contractor and subcontractor information—similar to issues with applicant data—the type and quality of information collected differs, and some data fields were missing or unavailable.<sup>80</sup> For example, the 2017 CDBG-DR grantees were required to report the DUNS number for prime contractors; however, we were able to collect at least one DUNS number for 207 out

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<sup>77</sup>HUD, Buying Right CDBG-DR and Procurement: A Guide to Recovery. September, 2017. The guidance is addressed to grantees and subrecipients. Local government grantees must follow the procurement regulations set forth in 2 C.F.R. §§ 200.318 - 200.327. State grantees, however, must demonstrate compliance by establishing policies and procedures, and may do this by following their own state laws and regulations, or adopting the federal regulations either in whole or in part.

<sup>78</sup>SAM is a public federal database of all entities doing business with the federal government. It is also the central registration point for businesses seeking contracts with the federal government. SAM registration data contain the names of contractor businesses and owners that have registered in SAM. SAM also contains information on parties that have been suspended, debarred, or otherwise excluded from receiving federal contracts. If the grantee does not check SAM, they can collect a certification from the contractor or add a clause or condition to the covered transaction with that contractor.

<sup>79</sup>We collected this and other data elements from selected grantees and subrecipients to also conduct network analysis, which is reported previously in this report.

<sup>80</sup>The dataset identified 257 unique contractors and 1,063 unique subcontractors and approximately \$4.66 billion obligated for these contracts and subcontracts.

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of the 257 unique contractors (nearly 81 percent). As a result, we standardized the data for analysis using a multi-step process, including first matching to SAM registration data to supplement missing or unavailable contractor and subcontractor information.

Unique identifiers—such as DUNS, Commercial and Government Entity (CAGE) codes, or Taxpayer Identification Numbers (TIN)—are among the primary means for identifying entities in SAM exclusions and registration records.<sup>81</sup> Without these, the process to match to SAM is more complex and requires matching on text fields such as entity name, “doing business as” (DBA) name, contact name, or entity address. We were able to collect at least one unique identifier, including DUNS, for 218 of 257 unique contractors. We were able to collect at least one unique identifier, including DUNS, for 83 of 1,063 unique subcontractors.

As a first step in determining if our selected grantees had debarred, suspended, or excluded contractors or subcontractors, we matched all 257 unique contractors and 1,063 unique subcontractors to SAM registration information to supplement missing or unavailable information. Our matching analysis found

- Among the 218 CDBG-DR contractors for which we had unique identifiers, we successfully matched 189 (74 percent of all contractors) to confirm their registrations in SAM.
- For the 39 contractors without unique identifiers and the remaining 29 contractors with identifiers that could not be matched (per above), we attempted to match based on company name or address. We matched 24 (9 percent) using secondary information.
- The remaining 44 contractors (17 percent) did not match, indicating they were either not registered in SAM or their registrations were not readily identifiable using a unique identifier, company name, or company address.

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<sup>81</sup>In 2022, SAM.gov changed from using DUNS number to Unique Entity Identifier (UEI). The transition from DUNS number to the UEI is a federal government-wide initiative. The Office of Management and Budget directed federal agencies to complete their system transitions to the UEI no later than April 4, 2022. Contractor and Government Entity (CAGE) codes are five-character alpha-numeric identifiers assigned to entities located in the United States and its territories by the Defense Logistics Agency CAGE Program Office. Taxpayer Identification Numbers are identification number used by the Internal Revenue Service in the administration of tax laws and can include Social Security numbers and Employer Identification Numbers.

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- Combining our findings from SAM matching and earlier described network analysis, we found that all 16 contractors with the highest betweenness centrality scores could be matched in SAM.
  - We matched 197 subcontractors (19 percent) with registrations in SAM. Most subcontractors (81 percent) were either not registered in SAM, had incomplete information collected, or had registrations that were not readily identifiable under the collected unique identifier, company name, or company address.
  - Combining our findings from SAM matching and earlier described network analysis, we found that 17 of the 30 subcontractors with the highest betweenness centrality scores were among those that could not be matched in SAM. This means that 17 subcontractors with significant influence in the network were not registered in SAM or their registrations were not readily identifiable under a unique identifier, company name, or company address.

We then matched contractor and subcontractor data from our four selected grantees and subrecipients to SAM exclusions data to identify companies that have been suspended, debarred, or otherwise excluded from receiving federal contracts.<sup>82</sup> However, due to data limitations, in some cases we could not conclusively identify matches, or determine if the absence of a match meant no exclusion existed or the data were not sufficient for matching. Specifically, we found

- For the 213 contractors and 197 subcontractors we were able to match to SAM registrations (noted above), we did not identify any suspended, debarred, or otherwise excluded companies in a match to SAM exclusions data using all the unique identifier from SAM registration data.
- Within the total population of 257 contractors and 1,063 subcontractors, we identified some companies that matched to SAM exclusions data based on secondary data, such as company name, address, and point of contact. Specifically, we identified 25 contractors and 51 subcontractors that might be debarred. However, because we did not have sufficient information for these matches, we could not confirm these exclusions without additional data matching

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<sup>82</sup>SAM exclusions data identifies a party excluded from receiving federal contracts, certain subcontracts, and certain types of federal financial and non-financial assistance and benefits. The Active Exclusions field on the SAM Entity summary indicates whether there is a current exclusion record associated with that unique entity identifier.

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and verification. We matched on secondary data—including company contract signer—to identify “reincarnated” companies.<sup>83</sup> HUD guidance notes that grantees can check SAM to determine if a proposed contractor is debarred. And, in doing so, “in addition to checking the name of the contracting firm, the name of the president and owner of the firm should also be checked.”<sup>84</sup>

We found instances where contractors and subcontractors might be suspended, debarred, or otherwise excluded from receiving federal contracts. HUD officials noted they expect grantees and subrecipients to check SAM to determine whether a contractor has been suspended, debarred, or excluded from working on federal contracts, but grantees are not required to check SAM exclusions data. Though HUD’s guidance details additional SAM fields to check for suspended, debarred, or excluded contractors, HUD does not provide grantees and subrecipients specific guidance on standards or requirements for collecting contractor and subcontractor data—including unique identifiers, company name, address, or points of contact—needed to facilitate matching with these fields. One of the subrecipients in our review told us that additional guidance from HUD on how to identify debarred and suspended contractors would be helpful in their fraud detection efforts. Additional guidance from HUD on what data elements to collect—such as UEI, CAGE code, and TIN—could support grantees’ and subrecipients’ ability to identify a potential contractor’s exclusion status.

Federal internal control standards state that management should externally communicate quality information to achieve the entity’s objective.<sup>85</sup> Managers can do that by designing processes and identifying information requirements needed to achieve objectives and address risks as well as by processing obtained data into quality information that supports the internal control system. This can include, for example,

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<sup>83</sup>For the purposes of this report, we defined reincarnated companies as those that have been suspended or debarred, but whose principle owners create and register a new company in SAM, without disclosing prior exclusions, in order to continue receiving federal awards.

<sup>84</sup>HUD, Buying Right CDBG-DR and Procurement Guide. The guidance is addressed to grantees and subrecipients.

<sup>85</sup>[GAO-14-704G](#).

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unique identifiers to support grantees' and subrecipients' efforts to identify suspended, debarred, or excluded contractors and subcontractors.<sup>86</sup>

As demonstrated by our data analysis results, collecting additional information, such as the information available in the SAM registration data, can help a grantee or subrecipient determine whether a potential contractor is suspended, debarred, or excluded from receiving federal contracts. With such information, grantees would also be in better position to verify links to other registered or reincarnated companies to comply with HUD's guidance for checking company owner and president name for debarment.

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## HUD Updated Grantee Requirements for Fraud Detection, but Does Not Collect Information to Assure Grantees Receive Required Fraud Detection Training

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### HUD Updated Grantee Requirements to Detect Fraud, Waste, and Abuse

HUD updated its grantee requirements to detect fraud, waste, and abuse, including approaches to manage fraud risk and to introduce effective antifraud controls. Under the appropriations laws providing CDBG-DR funding in 2017 and 2018 for hurricanes, HUD is required to certify as a condition of making a grant that recipients have

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<sup>86</sup>GAO has reported on the importance of reporting complete grant information. In a 2023 testimony, we noted that federal regulations require recipients of federal awards (including contracts, grants and other financial assistance awards) to publicly report spending information on agreements they make with other entities to perform a portion of the work associated with their federal grant award. Award recipients are required to report information about these agreements, also known as subawards, into a data system that feeds into USAspending.gov. Ensuring the quality of subaward data, as reported by prime award recipients, is important to enable the public to track federal spending by providing the public with additional detail on where and how federal grants funds are used. *Grants Management: Observations on Challenges with Access, Use, and Oversight*, [GAO-23-106797](#) (Washington, D.C.: May 2, 2023).

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1. proficient financial controls and procurement processes in place;
  2. established adequate procedures to prevent any duplication of benefits; and
  3. established adequate procedures to detect and prevent waste, fraud, and abuse of funds, among others.

Prior to issuing a grant under these appropriations, HUD requires potential grantees to complete its Financial Management and Grant Compliance Certification Checklist (checklist). Through the checklist, HUD assesses a potential grantee's procedures to prevent duplication of payments and to detect fraud, waste, and abuse of funds. HUD also assesses a grantee's procedures to detect and prevent fraud, waste, and abuse of funds, which require the grantee and its subrecipients to attend any fraud-related training provided by the HUD OIG. The grantee's designated HUD representative must review and determine whether grantees' submissions are satisfactorily completed.

These requirements are important for effective fraud risk management, but GAO and HUD OIG identified limitations in the areas covered by the checklist and HUD's implementation. For example, in our May 2021 report, we identified four categories of fraud risks facing CDBG-DR, including risks from contractors—an area that was not explicitly covered in the checklist.<sup>87</sup> Additionally, prior GAO work has shown that when managing federal grants, effective oversight and internal controls are important to provide reasonable assurance that federal grant funds are used as intended and in accordance with applicable laws and regulations.<sup>88</sup> In 2017, HUD OIG reported that HUD did not provide sufficient guidance and oversight to ensure that grantees followed proficient procurement processes.<sup>89</sup> In 2021, HUD OIG identified common areas of weaknesses and risks among CDBG-DR grantees, such as not ensuring that subrecipients or contractors followed agreements or

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<sup>87</sup>[GAO-21-177](#).

<sup>88</sup>See for example, *Grants Management: Observations on Challenges and Opportunities for Reform*, [GAO-18-676T](#) (Washington, D.C.: Jul. 25, 2018)

<sup>89</sup>HUD OIG, *HUD Did Not Provide Sufficient Guidance and Oversight to Ensure That State Disaster Grantees Followed Proficient Procurement Processes* (Philadelphia, P.A.: September 22, 2017). HUD OIG 2017-PH-0002.

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requirements.<sup>90</sup> In response to these findings and findings in other GAO reports, HUD updated its checklist in May 2022.<sup>91</sup>

In the updated checklist, HUD added specific requirements for grantees pertaining to fraud, waste, and abuse to provide them additional approaches to manage fraud risk and to introduce antifraud controls (see fig. 9). Among other things, the updated checklist requires that:

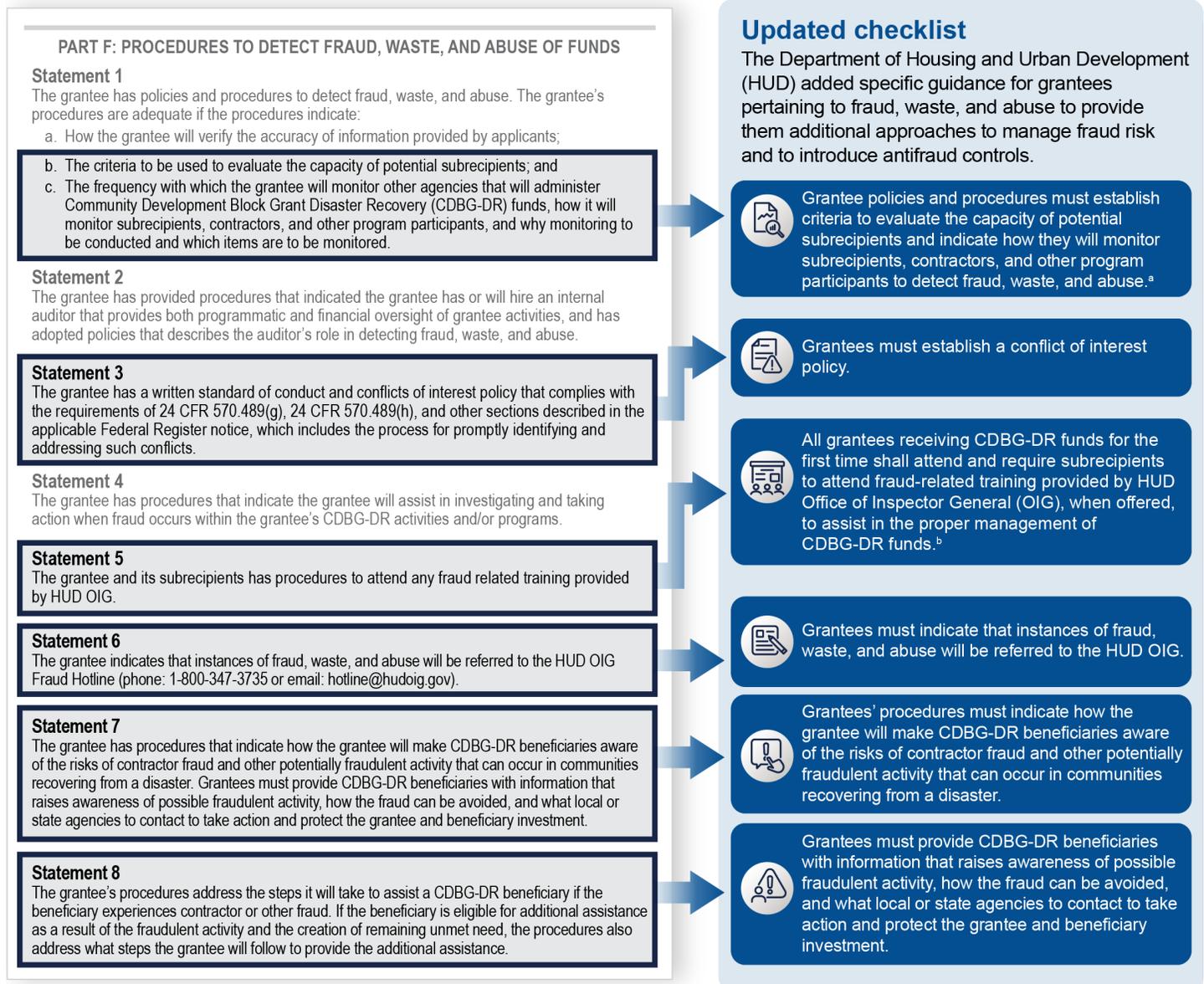
- grantees’ policies and procedures indicate how it will monitor subrecipients, contractors, and other program participants to detect fraud, waste, and abuse;
- subrecipients, contractors, and other program participants be considered in the grantee’s monitoring procedures;
- grantees establish criteria to evaluate the capacity of potential subrecipients and establish a conflict of interest policy to address risks such as undisclosed financial or personal interest in a transaction involving disaster recovery assistance; and
- grantees receiving CDBG-DR funds “for the first time” attend fraud-related training and require subrecipients to attend fraud-related training provided by the HUD OIG.

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<sup>90</sup>HUD OIG, *Lessons Learned and Key Considerations From Prior Audits and Evaluations of the CDBG Disaster Recovery Program* (Washington, DC: November 2, 2021). HUD OIG 2022-FW-0801.

<sup>91</sup>According to the Financial Management and Grant Compliance Certification Requirements for State Grantees 2020 Disasters, all state CDBG-DR grantees must complete the Financial Management and Grant Compliance Certification requirements to enable certification. The updated checklist is applicable for new grant agreements, but may not apply to all grants. If a CDBG-DR grantee is awarded a subsequent CDBG-DR grant that is related to a past grant agreement, HUD will rely on the grantee’s prior certification submissions. Two exceptions to this are (1) if it has been more than three years since the executed grant agreement for the CDBG-DR grant or (2) if the subsequent grant is equal to or greater than ten times the amount of the original CDBG-DR grant.

**Figure 9: Updated Department of Housing and Urban Development (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR) Financial Management and Grant Compliance Certification Checklist Procedures for Fraud, Waste, and Abuse**



Source: GAO analysis of HUD information and stas111/stock.adobe.com (icons). | GAO-23-104382

<sup>a</sup>Subrecipients, contractors, and other program participants must now be considered in the grantee's monitoring procedures.

<sup>b</sup>Training was a previous requirement for all grantees; however, the updated checklist specifies the requirement for fraud, waste, and abuse training is for first-time grantees. Additionally, the updated

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training requirement indicates that grantees should attend this training “when it is offered” by HUD  
OIG.

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## HUD Is Not Able to Assure Grantees and Subrecipients Have Received Required Fraud Detection Training

HUD’s checklist requires all grantees receiving CDBG-DR funds for the first time to attend fraud-related training provided by HUD OIG, when offered. It also directs grantees to require all subrecipients to attend such training. According to HUD and some selected grantee and subrecipient officials, HUD OIG staff have provided information and fraud-related training sessions to grantees and subrecipients and their staff. For example, HUD OIG led a July 2019 Problem Solving Clinic, which included reviewing

1. HUD OIG’s role in fraud investigations;
2. definitions and examples of various categories of fraud specific to the CDBG-DR environment including bribery, kickbacks, bid rigging, conflicts of interest, and billing schemes;
3. preventive measures to deter fraud including strengthening forms, monitoring bank statements and credit cards, as well as developing an anti-fraud policy and a code of conduct; and
4. the process of referring cases to HUD OIG through its Hotline.

All four selected grantees and subrecipients in our review confirmed receiving fraud, waste, and abuse training at one point between 2019 and 2021. However, HUD does not maintain attendance documentation to determine whether a grantee or subrecipient received training and which grantee and subrecipient staff received training. When we requested training records, HUD did not have such documentation and had to request it from the HUD OIG, which was able to provide the documentation. HUD is aware of training opportunities provided by HUD OIG and provided documentation that the selected CDBG-DR grantees and subrecipients in our review had an opportunity to attend training. HUD does not, however, request or review attendance information from HUD OIG to determine whether a grantee or subrecipient received training and which grantee and subrecipient staff received training. According to HUD officials, they instead coordinate with HUD OIG to ensure that each grantee has an opportunity to attend the HUD OIG fraud, waste, and abuse training, and rely on HUD OIG to provide participant information upon request.

As outlined in HUD’s Handbook, HUD is required to assess if the grantee is following its policies and procedures to detect and prevent fraud, waste,

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and abuse, as submitted in response to the checklist. However, HUD officials noted that they do not play a direct role in ensuring that grantees and subrecipients have met their checklist requirements for required training, but instead do that as part of the monitoring process of ensuring grantees are complying with their own policies and procedures. In our review of checklist documentation for the four selected grantees and subrecipients, HUD certified both grantees in our review as having procedures to attend fraud-related training provided by HUD OIG. However, without participant data, it is unclear how HUD determines that grantees and subrecipients are complying with procedures to attend training. In its most recent Top Management Challenges report, the HUD OIG identified oversight challenges related to fraud risk management, such as ensuring that grantees and subrecipients attend fraud-related training.<sup>92</sup>

Grantees and subrecipients in our review confirmed receiving fraud, waste, and abuse training, but noted challenges in accessing HUD OIG training. For example, officials from three of the four grantees and subrecipients told us they had to contact HUD OIG or their HUD representative to request this training. Both subrecipients in our review noted that lack of information—such as how and when the training can be accessed—has made it challenging for them to meet the checklist requirement to attend fraud-related training provided by HUD OIG, when offered.

HUD and the HUD OIG have taken steps to inform CDBG-DR grantees and subrecipients of fraud-related training, when it is offered. For example, HUD officials noted they provide information to grantees and subrecipients to help mitigate fraud, waste, and abuse—including materials from training—on the HUD Exchange.<sup>93</sup> According to HUD officials, HUD OIG also periodically issues various alerts, notices, and bulletins regarding fraud, waste, and abuse via the HUD Exchange.

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<sup>92</sup>HUD OIG, *Top Management Challenges, Facing the U.S. Department of Housing and Urban Development in FY 2023*. The HUD OIG reported that HUD has continued its efforts to educate grantees on fraud prevention and deterrence through antifraud training for disaster grantees in collaboration with OIG and other partners. More than 2,000 employees of disaster grantees have attended this training.

<sup>93</sup>The HUD Exchange is an online platform for providing program information to HUD's community partners including resources, trainings, program support, grantee data and profiles, and news. Some additional trainings related to fraud, waste, and abuse include Davis Bacon and Related Acts for 2015-2019 CDBG-DR Grants and CDBG-MIT Grants (2020); 2017 CDBG and CDBG-DR Updates and Clarifications to Procurement Requirements (2017), and Duplication of Benefits (2021 and 2022).

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However, both subrecipients in our review told us that meeting the checklist requirement to receive fraud-related training would be easier were HUD to inform them of available training or make additional trainings available. One subrecipient told us that their most recent HUD OIG training occurred in 2021 and they were informed that the next available one is not scheduled to occur until 2024. One missed training could mean not receiving it for an extended period of time. The same subrecipient told us that posting some portions of HUD OIG training on the HUD Exchange, for example, could allow their staff to access the training anytime and equip them to detect and prevent fraud, waste, and abuse more effectively.

According to the Fraud Risk Framework, fraud awareness training is a key control activity to mitigate fraud risk and supports the development of a culture to combat fraud risks.<sup>94</sup> Further, federal internal control standards call on managers to use quality information to achieve the entity's objectives.<sup>95</sup> Without attendance information, HUD does not have assurance that grantees' procedures are effective at ensuring grantee and subrecipient staff have received proper training to detect fraud, waste, and abuse.

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## Conclusions

HUD is responsible for ensuring that CDBG-DR grantees have controls in place to identify applicant and contractor fraud risks in order to protect the \$39.5 billion in funds allocated in response to 2017 through 2019 natural disasters. A number of factors can present increased opportunities for fraud, including (1) the decentralized risk environment, in which CDBG-DR funds flow through grantees, subrecipients, contractors, and subcontractors and (2) the lack of permanent statutory authority for CDBG-DR, which requires HUD to customize grant requirements for each disaster. Along with these risks, an expected increase in frequency and intensity of extreme weather and climate-related events and growth in these grant appropriations present increased opportunities for fraud.

Grantees develop, and HUD certifies, financial controls and procedures for fraud risk management and assuring benefits go to eligible recipients, in the right amounts, in furtherance of program goals. Our analysis of CDBG-DR applicant eligibility data found weaknesses in applicant eligibility controls, revealing vulnerabilities to fraud. While we were able to identify these control weaknesses through our analysis, we confronted

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<sup>94</sup>[GAO-15-593SP](#).

<sup>95</sup>[GAO-14-704G](#).

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issues doing so because of incomplete and inconsistent data across grantees and subrecipients. Currently, HUD does not provide guidance that would support complete and consistent data collection for eligibility determinations and identification of program-wide fraud risks. Incomplete and inconsistent data impact grantees' and subrecipients' ability to make eligibility determinations and limit HUD's ability to oversee grantees' processes for managing fraud risk. Further, they limit transparency into program-wide risks, such as from applicants seeking funds across grantees and subrecipients.

With respect to program-wide risks, our network analysis demonstrated the value of such analyses to enable HUD and its grantees to understand their risk environment. Specifically, our analysis identified key players who are important to risk-based monitoring because of the greater potential impact of their connections and influence. These connections can increase efficiencies by sharing knowledge of the CDBG-DR programs, but can also increase risk if contractors in such positions are unable to deliver on contracts or are engaged in fraud or wrongdoing. Currently, HUD's monitoring approach focuses at the grantee level and may not fully assess risks across the CDBG-DR contracting environment. HUD's guidance for risk-based selection of contracts for review does not consider contractors that may pose greater risk when considered across grantees, particularly where allegations of fraud, waste, and abuse have been made. Our analysis demonstrated the utility of a network approach for gaining insights into the CDBG-DR contracting environment for risk-based monitoring, but it required a substantial data collection effort to map out the contracting network for analysis. HUD is developing capabilities for data collection in its DRDP and collects some contract data via its DRGR. However, HUD does not collect nor have adequate guidance to collect contractor and subcontractor data in these systems that could facilitate risk management across its decentralized environment.

Additionally, our analysis of SAM exclusions data using the CDBG-DR contractor and subcontractor data we developed for network analysis showed that grantees and subrecipients are not readily able to assure that entities are not debarred or suspended because of limitations in the data they collect. Currently, HUD does not provide grantees and subrecipients specific guidance on standards or requirements for collecting contractor and subcontractor data to assure contractors are not debarred or suspended. With better data, particularly on unique identifiers such as UEI, CAGE code, or TIN numbers, grantees would be better

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positioned to meet procurement requirements for searching companies for exclusions.

As part of its oversight responsibility, HUD requires all grantees receiving CDBG-DR funds for the first time to attend fraud-related training provided by HUD OIG, when offered. Currently, HUD receives documentation related to opportunities to attend fraud awareness training provided by the OIG, but it does not request or review available information to determine whether grantees and subrecipients actually received such training. Further, selected grantees and subrecipients in our review noted challenges in meeting this requirement to attend fraud-related training provided by HUD OIG and noted that additional information from HUD on available training and training upon demand would be helpful. Fraud awareness training is a key control activity to mitigate fraud risk and supports the development of a culture to combat fraud risks; effective fraud awareness training requires both ensuring the opportunity for training and assurance that key individuals have taken advantage of the training.

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## Recommendations for Executive Action

We are making seven recommendations to HUD:

The Assistant Secretary for Community Planning and Development should develop guidance for CDBG-DR grantees and subrecipients on collecting complete and consistent data to better support applicant eligibility determinations and fraud risk management. (Recommendation 1)

The Assistant Secretary for Community Planning and Development should update the Monitoring Handbook for Disaster Recovery Community Development Block Grant monitoring activities to provide additional guidance in the selection of contracts for review. This should include factors such as contractors that present increased risk to the CDBG-DR environment, including those where allegations of fraud, waste, or abuse have been made. (Recommendation 2)

The Assistant Secretary for Community Planning and Development should identify ways to collect and combine contractor and subcontractor data across grantees and subrecipients to facilitate risk analyses, such as by expanding the Disaster Recovery Data Portal, Disaster Recovery Grant Reporting System, or other appropriate systems. (Recommendation 3)

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The Assistant Secretary for Community Planning and Development should develop and implement guidance for CDBG-DR grantees and subrecipients to collect contractor and subcontractor data to facilitate identification of contractor and cross-cutting fraud risks through approaches such as network analysis. (Recommendation 4)

The Assistant Secretary for Community Planning and Development should develop guidance on data elements to be collected by grantees and subrecipients, to determine if a contractor has been suspended, debarred, or excluded from working on government contracts. (Recommendation 5)

The Assistant Secretary for Community Planning and Development should ensure that grantees and subrecipients have attended fraud-related training as required. This could include requesting and reviewing attendance documentation from the OIG and grantees. (Recommendation 6)

The Assistant Secretary for Community Planning and Development, in coordination with the HUD Office of Inspector General, should ensure that grantees and subrecipients are made aware of available fraud-related training and make training available on demand to grantees and subrecipients. (Recommendation 7)

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## Agency Comments, Third-Party Views, and Our Evaluation

We provided a draft of this report to HUD, HUD OIG, FEMA, and our selected grantees and subrecipients—Florida DEO, Texas GLO, Harris County and the City of Houston—for review and comment. HUD provided written comments and Texas GLO provided its written views. The other agencies, grantees, and subrecipients declined to do so. We received technical comments from HUD, HUD OIG, FEMA, and Texas GLO, which we have incorporated as appropriate.

In its written comments, which are summarized below and reproduced in appendix II, HUD concurred with three recommendations (Recommendations 1, 5, and 7) and described its plans for implementing them. HUD, however, neither agreed nor disagreed with two recommendations (Recommendations 2 and 3); and did not agree with two recommendations (Recommendations 4 and 6). We continue to believe that all of the recommendations are warranted to ensure effective fraud risk management for future disaster recovery funding and the approximately \$39.5 billion appropriated in CDBG-DR grant funds in response to the 2017 through 2019 disasters.

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HUD neither agreed nor disagreed with the second recommendation to update its Monitoring Handbook to provide additional guidance in the selection of contracts for review, including factors such as contractors that present increased risk to the CDBG-DR environment. In its response to this recommendation, HUD stated that it is implementing a department-wide fraud risk management process that includes data analytics. Specifically, HUD noted that it would undertake program-specific fraud assessments, fraud risk inventories, and periodic fraud risk training for HUD programs, including CDBG-DR. HUD's planned efforts include a review of relevant portions of the Monitoring Handbook, including annotating specific risk analysis factors and monitoring exhibit questions that may indicate heightened fraud risk.

HUD's planned efforts do not explicitly include providing HUD staff guidance on how to select contracts that may involve contractors that pose greater risk to the CDBG-DR environment, however—such as those contractors associated with ongoing and remediated investigations of fraud, waste, and abuse. HUD also stated that it has concerns about the potential legal liability for taking actions with adverse consequences for contractors that have not been debarred, suspended, or otherwise excluded from or ineligibility for participation in federal assistance programs. However, we are not recommending that HUD take action against these types of contractors, but rather that the department adopt a risk-based approach to monitoring grantees and their contractors given limited resources. While we acknowledge HUD's broader fraud risk management efforts, they may take time to develop and do not immediately or specifically address the vulnerability we identified in our review.

HUD neither agreed nor disagreed with our third recommendation to collect and combine contractor and subcontractor data across grantees and subrecipients to facilitate risk analyses, such as by expanding the Disaster Recovery Data Portal (DRDP), Disaster Recovery Grant Reporting System (DRGR), or other appropriate systems. HUD stated that the responsibility for designing systems to prevent fraud, waste, and abuse resides at the grantee level, and that given the large number of contractors and subcontractors, it is not feasible for HUD to collect and combine this information. However, HUD is not precluded—in its oversight role of both CDBG-DR and grantees—from identifying ways to collect and combine contractor and subcontractor data in a way that facilitates risk analyses across grantees and for CDBG-DR funds as a whole in order to safeguard taxpayer funds. Further, leveraging existing and developing systems such as the DRGR and DRDP provide opportunities to efficiently do so. As HUD develops or refines its data

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systems, it could exploit opportunities for ensuring common data collection, standards, and sharing to facilitate risk analysis of the full CDBG-DR environment.

HUD disagreed with recommendation four, to develop and implement guidance for CDBG-DR grantees and subrecipients to collect contractor and subcontractor data. Such data would facilitate identification of contractor and cross-cutting fraud risks through approaches such as network analysis. In its comments, HUD stated that CDBG-DR funds are awarded to grantees as block grants authorized by the Omnibus Budget Reconciliation Act of 1981, including the CDBG program.<sup>96</sup> HUD further noted that program requirements for CDBG-DR are established by Federal Register notice, statute, or CDBG program regulation. As such, according to HUD, grantees are not required to undertake specific action, such as collecting contractor data for risk analysis, to support fraud risk management. These requirements do not absolve HUD of its responsibilities for fraud risk management and protecting taxpayer dollars. Specifically, a provision of the Payment Integrity Information Act of 2019 (PIIA), codified at 31 U.S.C. § 3357, requires OMB to maintain guidelines for agencies to establish financial and administrative controls to identify and assess fraud risks and that incorporate leading practices from GAO's *Fraud Risk Framework*.<sup>97</sup> PIIA further specifies that the guidelines shall include collecting and analyzing data from reporting mechanisms on detected fraud to monitor fraud trends and using that data and information to continuously improve fraud prevention controls, and using the results of monitoring, evaluation, and investigations to improve fraud prevention, detection, and response. OMB Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control* implements this requirement and directs agencies to follow the leading practices outlined in the *Fraud Risk Framework*. The comment further disregards HUD's own policy. Specifically, HUD's *Departmental Policy on the Implementation of OMB Circular A-123, Management's Responsibility for Enterprise Risk Management (ERM) and Internal Control* specifies that HUD management has the responsibility to design, implement, and operate processes with embedded internal controls that mitigate the risk of fraud, waste, and abuse in grant programs. Accordingly, while HUD's oversight role includes ensuring that grantees follow CDBG-DR requirements, it is also responsible for

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<sup>96</sup>78 Fed. Reg. 78590, 78619 (Dec. 26, 2013).

<sup>97</sup>The Fraud Reduction and Data Analytics Act of 2015 (FRDAA) originally required OMB to establish these guidelines for agencies in 2016. FRDAA was repealed and replaced by PIIA in 2020.

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implementing appropriate financial and administrative controls to manage fraud risks. Our recommendation focuses on providing guidance to grantees for better data collection to support fraud risk management. The recommendation supports both HUD and grantees' ability to manage the crosscutting risks facing CDBG-DR, helping ensure that funds are efficiently disbursed and actions are taken to safeguard taxpayer dollars from improper use.

HUD also noted that it is neither practical nor feasible for grantees recovering from a major disaster to implement the type of sophisticated network analysis described in the report while concurrently administering the recovery programs. However, the intent of this recommendation was for HUD to develop and implement guidance for CDBG-DR grantees and subrecipients to collect contractor and subcontractor data so that HUD—not the grantees and subrecipients—can identify contractor and cross-cutting fraud risks through approaches like network analysis. Given that these risks span the CDBG-DR contracting network, individual grantees and subrecipients would not be able to identify and assess network risks. However, HUD—in its oversight role of both CDBG-DR and its grantees—is best positioned to identify and assess contractor and cross-cutting risks with the right contractor and subcontractor data. Further, we maintain that approaches like network analysis are not only practical but feasible since grantees already collect and post contractor and subcontractor data on their websites in response to CDBG-DR requirements.

HUD disagreed with recommendation six, to ensure as part of its ongoing monitoring process that grantees have attended fraud-related training as required. HUD stated that it disagrees with this recommendation because it cannot issue a non-compliance finding (during the monitoring process) to the grantee for failure to attend if the HUD OIG does not provide adequate and timely training to CDBG-DR grantees or has limited space in training offerings. HUD's concern about this recommendation appears to be tied to language it believed linked the action to its monitoring process. Apart from this nuance, HUD acknowledged our finding and agreed to coordinate with the HUD OIG to gather attendance documentation. Our intent was for HUD to take this action to help assure grantees comply with HUD's Financial Management and Grant Compliance Certification Checklist (checklist). We therefore removed from the recommendation the language relating the action to the ongoing monitoring process. HUD also noted the need for transparency in ensuring which grantees have participated in the fraud-related training and stated it would request that the HUD OIG create a system or other action to notify HUD when grantees fail to attend the training. We agree that these actions, once implemented as intended, will help ensure that

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CDBG-DR grantees have attended fraud-related training as required.

HUD also provided technical corrections and clarifications, which we incorporated as appropriate. However, in regards to these comments, we note the following:

HUD reiterated that it questions the assertion that the “leading practices” recommended in the *Fraud Risk Framework* are requirements on federal agencies administering block grants or grantees of such programs. It refers to the Omnibus Budget Reconciliation Act of 1981 and the implementing regulations that state that grantees may use their own fiscal and administrative requirements for expending and accounting for federal grants.<sup>98</sup> According to HUD, it finds efforts to impose additional requirements on grantees inconsistent with regulations and statutes. However, HUD is subject to PIIA and the associated fraud risk management guidelines established in OMB Circular A-123. Further, OMB Circular A-123 also includes additional considerations, one of which is specific to Managing Grants Risks in Federal Programs. Those considerations make clear that federal agencies, such as HUD, must consider grant risk management as part of the agency’s overall risk management approach. Specifically, OMB Circular A-123 notes the following:

- There is a shared interest for management and oversight of Federal grant dollars from both a financial management and grants management perspective.
- Leveraging the risk-based perspective, the internal controls framework should serve as a mechanism to ensure effective and efficient allocation and use of Federal grant dollars.
- Agencies must consider fraud risks in their strategic plans and ensure Federal officials involved in planning for, awarding, and managing grants and other forms of financial assistance receive training on fraud indicators and risk.

OMB Circular A-123 goes on to note that “the Federal Government has a number of complex inter-dependencies with State and local governments, and other recipients of Federal funding. From an ERM [enterprise risk

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<sup>98</sup>24 C.F.R. § 570.489(d)

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management] perspective, these inter-dependencies—called the “extended enterprise” impacts the Agency’s risk management, and give rise to certain additional risks, which need to be considered in the Agency’s risk profile.”<sup>99</sup> Finally, ERM and use of data analytics is a best practice for award and grantee risk mitigation where federal awarding agencies plan for and execute monitoring and mitigation activities.

HUD also stated that the draft report overstated or incorrectly stated the fraud risks in CDBG-DR assistance as it relates to applicant eligibility determinations. HUD highlighted caveats such as that our work did not confirm receipt of benefits from FEMA, NFIP, or SBA; that there was a lapse of time between initial eligibility determination and provision of assistance; and other eligibility determinations steps that may have come subsequent to the initial determination of eligibility. However, the caveats that HUD noted in their comments to our draft report were noted in our report, as appropriate. In addition, this report was not intended to re-adjudicate eligibility determinations for individual households or applicants. Instead, our analysis focused on approved applicants at increased risk of fraud.

For example, we examined households that reported not receiving assistance or that were missing this information in the selected grantee and subrecipient data, when a review of external sources identified potentially duplicative assistance and household income. We also found instances of households that had applied for or received benefits that were not recorded in the grantee and subrecipient data for those programs. As a result of this approach, we do not overstate or incorrectly state the fraud risks facing the CDBG-DR. Rather our analyses highlights weaknesses in grantees’ control activities for all three areas of applicant eligibility determination we reviewed and noted that control weaknesses increase vulnerability to fraud. As appropriate, we referred specific instances of potential fraud to the HUD OIG for investigation.

Finally, HUD stated that the draft report does not identify the types of contractors that are recommended for review as program management and programs services delivery contractors pose very different risks from construction contractors. We agree with this clarification and noted that

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<sup>99</sup>According to Office of Management and Budget (OMB) Circular A-123, *Management’s Responsibility for Enterprise Risk Management and Internal Control* (July 16, 2016), enterprise risk management is a component of a governance framework. It deals with identifying, assessing, and managing risks. Through adequate risk management, agencies can concentrate efforts towards key points of failure and reduce or eliminate the potential for disruptive events.

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the types contractors and subcontractors referred to in this report are ones involved in disaster recovery in areas such as damage assessment, construction/repair, inspection, and management.

In addition, Texas GLO provided third-party views on the draft report that are summarized below and reproduced in appendix III. Texas GLO noted that a one-size fits all approach may not uniformly reduce fraud risks for all grantees and subrecipients. It also said that HUD should consider the impacts of future guidance that may increase the administrative burdens to carry out program activities for potential instances of fraud. Texas GLO agreed that improving access and awareness of fraud-related training would be beneficial, but that the impact could be greater when associated with instructional training on how to detect or analyze data for potential fraud. Texas GLO also noted that while the data we used to determine potential risks are not available or required of grantees and subrecipients, CDBG-DR grantees and subrecipients could benefit from risk analyses if HUD were to provide comprehensive training or provide completed analytical reports through databases like the DRGR and DRDP.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Housing and Urban Development, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

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If you or your staff have any questions about this report, please contact me at (202) 512-6722 or [shear@gao.gov](mailto:shear@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

A handwritten signature in black ink that reads "Rebecca Shea". The signature is written in a cursive style with a large initial 'R' and 'S'.

Rebecca Shea  
Director, Forensic Audits and Investigative Service

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*Congressional Committees*

The Honorable Chuck Grassley  
Ranking Member  
Committee on the Budget  
United States Senate

The Honorable Gary Peters  
Chairman  
The Honorable Rand Paul, M.D.  
Ranking Member  
Committee on Homeland Security and Governmental Affairs  
United States Senate

The Honorable Chris Murphy  
Chair  
The Honorable Katie Britt  
Ranking Member  
Subcommittee on Homeland Security  
Committee on Appropriations  
United States Senate

The Honorable Brian Schatz  
Chair  
The Honorable Cindy Hyde-Smith  
Ranking Member  
Subcommittee on Transportation, Housing and Urban Development, and  
Related Agencies  
Committee on Appropriations  
United States Senate

The Honorable Ron Johnson  
Ranking Member  
Permanent Subcommittee on Investigations  
Committee on Homeland Security and Governmental Affairs  
United States Senate

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The Honorable Maxine Waters  
Ranking Member  
Committee on Financial Services  
House of Representatives

The Honorable Bennie Thompson  
Ranking Member  
Committee on Homeland Security  
House of Representatives

The Honorable James Comer  
Chairman  
The Honorable Jamie Raskin  
Ranking Member  
Committee on Oversight and Accountability  
House of Representatives

The Honorable Nydia Velázquez  
Ranking Member  
Committee on Small Business  
House of Representatives

The Honorable Samuel "Sam" Graves  
Chair  
The Honorable Rick Larsen  
Ranking Member  
Committee on Transportation and Infrastructure  
House of Representatives

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The Honorable Dave Joyce  
Chair  
The Honorable Henry Cuellar  
Ranking Member  
Subcommittee on Homeland Security  
Committee on Appropriations  
House of Representatives

The Honorable Tom Cole  
Chair  
The Honorable Mike Quigley  
Ranking Member  
Subcommittee on Transportation, Housing and Urban Development, and  
Related Agencies  
Committee on Appropriations  
House of Representatives

The Honorable Emanuel Cleaver, II  
Ranking Member  
Subcommittee on Housing and Insurance  
Committee on Financial Services  
House of Representatives

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*List of Requesters*

The Honorable Marco Rubio  
United States Senate

The Honorable Al Green  
House of Representatives

The Honorable Jim Jordan  
House of Representatives

The Honorable Michael McCaul  
House of Representatives

The Honorable Gary Palmer  
House of Representatives

The Honorable Ann Wagner  
House of Representatives

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# Appendix I: Objectives, Scope, and Methodology

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As part of wide-ranging disaster-related work we are conducting, this report focuses on the potential for fraud in Community Development Block Grant Disaster Recovery (CDBG-DR) homeowner assistance programs. This report examines the extent to which (1) CDBG-DR applicant data indicate vulnerabilities to fraud and data quality presents challenges to identifying such vulnerabilities; (2) network and other analyses can help the Department of Housing and Urban Development (HUD) manage risks associated with the contracting environment, and (3) HUD's grantee requirements support fraud detection and training.

For all objectives, we interviewed officials and examined documentation from HUD and its Office of Community Planning and Development, which administers CDBG-DR, and the HUD Office of Inspector General (OIG). We also selected and interviewed officials from four state and local governments in Texas and Florida, which administer five homeowner assistance programs under CDBG-DR. These selected offices are:

- Florida Department of Economic Opportunity (DEO)—which is the HUD grantee in Florida that administers CDBG-DR funds for Hurricane Irma;
- Texas General Land Office (GLO)—which is the HUD grantee in Texas that administers CDBG-DR funds for Hurricane Harvey; and
- Two of Texas GLO's subrecipients, Harris County and City of Houston.<sup>1</sup>

The five homeowner assistance programs in our review are: (1) Texas GLO's Homeowner Assistance Program (HAP); (2) Texas GLO's Reimbursement Program (HRP); (3) Harris County's Residential Buyout, Homeowner Assistance, and Homeowner Reimbursement programs; (4) City of Houston's Homeowner and Homebuyer Assistance programs, and

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<sup>1</sup>We refer to Texas General Land Office (GLO) and Florida Department of Economic Opportunity (DEO) as "grantees" and Harris County and City of Houston as "subrecipients" throughout this report. As subrecipients of GLO, Harris County and the City of Houston originally were responsible for providing homeowner assistance to all eligible residents in their jurisdictions under locally administered programs. However, in March and April 2020, GLO launched separate state-run Homeowner Assistance Programs for Harris County and Houston because of the lack of significant progress. These state-run programs partially replaced the locally administered programs for most eligible residents.

(5) Florida DEO's Rebuild Florida Housing Repair and Replacement program.

We focused our review of CDBG-DR fraud risks on selected grantees and subrecipients in Texas and Florida in part because of their history of natural disasters—including heavy damage following Hurricanes Harvey and Irma in 2017—and the amount of CDBG-DR funds (\$2.3 billion and \$10.8 billion, respectively) allocated by HUD to these two states since 2011 to address unmet recovery needs.<sup>2</sup> We examined CDBG-DR fraud risks in direct aid programs overseen by our selected grantees and subrecipients by examining data from homeowner assistance programs, which pay funds directly to approved applicants and households. We then examined fraud risks to CDBG-DR assistance that is disbursed in a more decentralized control environment, by reviewing information on contractors and subcontractors working under our selected grantees and subrecipients. We analyzed the extent to which HUD's practices align with relevant leading practices in our *Framework for Managing Fraud Risks in Federal Programs* (Fraud Risk Framework).<sup>3</sup> The relevant leading practices from the Fraud Risk Framework relate to

1. designing and implementing data analytics and other control activities—such as combining data across programs from separate databases to facilitate reporting and analytics, if legally permissible—to prevent and detect fraud,
2. employing a risk-based approach to monitoring by taking into account internal and external factors that can influence the control environment, and
3. designing and implementing specific control activities—including policies and procedures, techniques, and mechanisms—to prevent and detect potential fraud.

We also assessed the extent to which HUD's practices align with principles in the *Standards for Internal Control in the Federal*

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<sup>2</sup>While also allocated funds in response to the 2017 hurricane, we did not include Puerto Rico or the U.S. Virgin Islands in the scope of our review in part because neither had prior experience with large Community Development Block Grant Disaster Recovery (CDBG-DR) allocations.

<sup>3</sup>GAO, *A Framework for Managing Fraud Risks in Federal Programs*, [GAO-15-593SP](#) (Washington, D.C.: July 28, 2015).

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*Government*, specifically principles related to using quality information to achieve an entity's objectives.<sup>4</sup>

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Extent to which CDBG-DR Applicant Data Indicate Vulnerabilities to Fraud and Data Quality Presents Challenges to Identifying Such Vulnerabilities

We took a number of steps to examine CDBG-DR applicant data related to (1) unreported duplication of other benefits, including with the Federal Emergency Management Agency's (FEMA) Individuals and Households Program (IHP), Small Business Administration (SBA) disaster loans, and National Flood Insurance Program (NFIP); (2) invalid and vacant addresses; and (3) unreported or under-reported income.

- *Review of CDBG-DR eligibility requirements*—We reviewed relevant federal laws, regulations, program policies, *Federal Register* notices allocating CDBG-DR funds, and specific applicant eligibility requirements for our selected grantees and subrecipients. Specifically, we examined *Federal Register* notices that govern the 2017 and 2018 grants and Texas and Florida action plans, which outline state-specific eligibility criteria for applicants seeking CDBG-DR assistance.
- *Data matching and analysis*—As part of this work, we analyzed individual homeowner assistance programs' applicant level data from programs in response to Hurricanes Harvey in Texas and Irma in Florida in 2017. Specifically, we obtained and analyzed applicant data from:
  - Texas GLO's Homeowner Assistance Program and Homeowner Reimbursement Programs;
  - Harris County's Residential Buyout, Homeowner Assistance, and Homeowner Reimbursement Programs;
  - City of Houston's Homeowner and Homebuyer Assistance Programs, and
  - Florida DEO's Rebuild Florida Housing Repair and Replacement Program.

These data included households approved for CDBG-DR assistance from the first quarter of calendar year 2020 through the third quarter of calendar year 2021. Our data did not include information on final assistance paid, if any. As a result, we do not know if applicants received their final assistance.

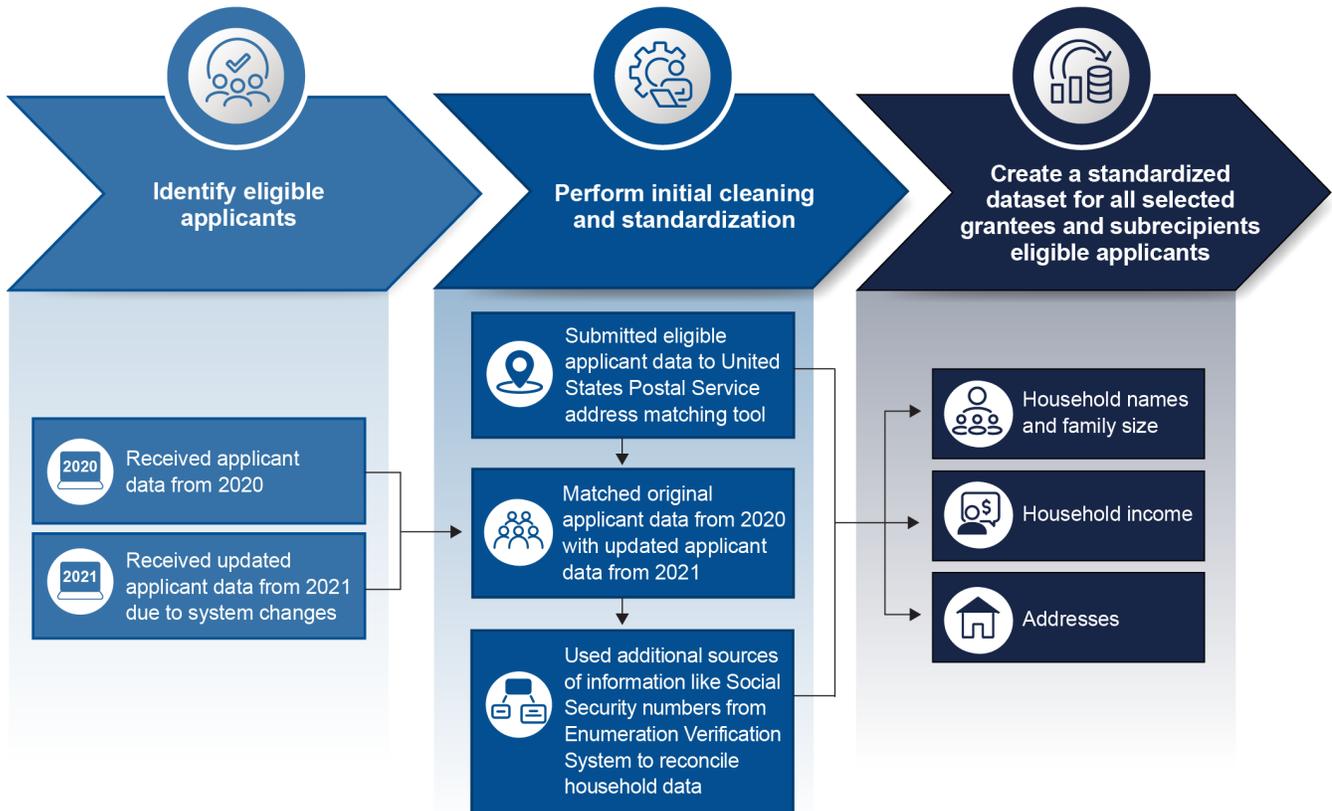
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<sup>4</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 10, 2014).

We took numerous steps to standardize and format available applicant data to create a final dataset that would facilitate multi-grantee data analysis and fraud detection. As shown in figure 10, we received two sets of data from our selected grantees and subrecipients because some grantees and subrecipients updated their data systems. All approved applicants included in our review were approved by the program at the time of the initial and the updated data.

- Florida provided us with updated applicant data that was program-verified in November 2021.
- Harris County implemented a new system in October 2021 that is now able to integrate with Texas GLO's system. The new system used a different set of unique identifiers than our initial data. The updated system also maintains different information than the initial system. For example, the updated system does not maintain Social Security numbers (SSNs), but the old system did.
- Texas GLO runs two CDBG-DR homeowner programs, HAP and HRP, which use separate systems. HAP provided updated data in October 2021 that included unique identifiers that enabled us to connect records from across the multiple provided datasets. These identifiers were not included in the original data we received. HRP provided updated applicant income data that had been verified by the program.
- City of Houston provided updated data from their same system as the initial data.

Figure 10: Generalized GAO Process to Standardize Grantee and Subrecipient Applicant Data for Data Analysis



Source: GAO analysis of Department of Housing and Urban Development data; and stas111/stock.adobe.com (icons). | GAO-23-104382

Once we identified applicants that were approved in the initial and updated data, we matched them to other reported household members from both sets of data. We submitted applicant address information from each program to the United States Postal Service’s Address Management System to receive standardized address information for each applicant; we then merged that standardized address information back into the applicant and household data. We standardized the formatting for information such as applicant and family member name and date of birth, which we used to match to the Social Security Administration’s (SSA) Enumeration Verification System in order to obtain SSNs. We used the SSNs to match to the Department of Health and Human Services National Directory of New Hires (NDNH) to procure income information, the process and limitations for which will be discussed later in this appendix. We also cleaned and standardized the remaining applicant and family member data fields and counted the number of household

members at each address. We then combined the standardized data from across all five of our selected homeowner assistance programs to create datasets on which to perform our applicant eligibility control analyses.

We then matched the total set of applicant data to numerous data sources (see below) to examine applicant data and controls for (1) unreported duplication of other benefits, including with FEMA's Individuals and Households Program, SBA disaster loans, and NFIP; (2) invalid and vacant addresses; and (3) unreported or under-reported income. We conducted this matching on the basis of common data elements including name, the address of the damaged property listed reported on the application, date of birth, and SSN, when available.

- FEMA Information Data and Analysis System (FIDA), which maintains Individuals and Household Program data on all individuals applying for and receiving assistance from FEMA's IHP including the 17 disasters declared during calendar year 2017. Additionally, these data contain information on assistance received from SBA.
- FEMA NFIP claims data, which maintains a cumulative list of all claims that were filed to NFIP since the start of the program.
- The United States Postal Service (USPS) Address Management System Application Programming Interface, a data system provided by USPS that enables addresses to be matched to an address management system database extract and verifies whether those addresses are valid or vacant;
- USPS archive data for Texas and Florida, which are historical extracts of address information, including vacancy data for 49 CDBG-DR eligible counties in Texas as of August 12, 2017 (the month Hurricane Harvey landed in Texas) and 48 counties in Florida as of September 9, 2017 (the month Hurricane Irma landed in Florida);<sup>5</sup>
- HUD Income Limits, which are published annually and determine eligibility for many programs including CDBG-DR;

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<sup>5</sup>We reviewed USPS archive data for 48 eligible counties in Florida. An additional county was deemed eligible for CDBG-DR assistance in Florida after we requested the archive records from the United States Postal Service. During our analysis, we identified that there were no approved CDBG-DR households from our selected grantees and subrecipients from that specific county, and as such it would not impact our results.

- SSA's Enumeration Verification System, a system that identifies whether the SSN, name, and date of birth match SSA's records for a given individual;
- Department of Health and Human Services' NDNH, a national repository of information reported by employers, states, and federal agencies that contains quarterly wages on existing employees and data on individuals who apply for or received unemployment compensation.

For our income analysis involving SSA's Enumeration Verification System and the NDNH, we did not necessarily have name and date of birth from every household member to obtain SSNs. As such, it is possible our income calculations could be missing income information for some household members, thus understating the amount of the total household income. We used the SSNs we were able to reliably match to identify income in the NDNH for these household members. The data residing in the NDNH include records from State Directories of New Hires, quarterly wage and unemployment insurance data from the state workforce agencies, and new hire and quarterly wage data from federal agencies. Income from self-employment is generally not included in the NDNH. We matched each household member to the wage information from the quarter they applied to CDBG-DR, and used it to estimate the annual household income. We then compared our estimated household income to the Area Median Income (AMI). We followed HUD's guidance on calculating estimated annual income.

It is possible that some applicants accurately reported zero income even though they had wages reported in NDNH in the same quarter in which they applied to CDBG-DR. For example, a household member may have earned wages at the start or end of a quarter, but was not earning wages at the time of submitting the CDBG-DR application. Conversely, our analysis cannot identify applicants who may have earned additional taxable income that is not part of NDNH data, such as income for individuals who are self-employed or receiving alimony. This methodology may understate or overstate income given that household members may not have earned the same amount in each of the four quarters or across the quarter during which they applied to CDBG-DR.

To determine the reliability of the applicant data, we reviewed relevant documentation, interviewed knowledgeable agency officials, and performed electronic testing of specific data elements in the selected grantees' and subrecipients' data and in the federal data files that we

used to perform our work. We similarly assessed the reliability of datasets used for applicant matching. On the basis of our own testing and our discussions with agency officials, we concluded that the data were sufficiently reliable for reporting potential indicators of applicant eligibility fraud. Due to factors such as variation in program features and differing practices among CDBG-DR grantees and subrecipients, our data analytics results are not projectable to other jurisdictions or disasters, and data matching alone cannot confirm specific instances of fraud. As appropriate, we made referrals of specific instances of potential fraud we identified through our analysis to the HUD OIG for additional investigation.

- *Covert testing*—We performed two covert tests (i.e., fictitious online applications) from March 2019 through November 2021 to test CDBG-DR’s internal controls associated with disaster-related benefits from individual applicant-focused programs in Texas. We submitted two online applications to the Texas GLO Homeowner Assistance and Reimbursement Programs in an attempt to receive CDBG-DR funds. The application submitted to the Texas GLO HAP tested the residency requirement of the program by submitting a fictitious county property tax receipt of a non-residential address. The application submitted to the Texas GLO HRP tested the site visit requirement of the program by providing a non-existent residential address. The results of our covert tests are illustrative and are not generalizable to the universe of CDBG-DR homeowner applicants.

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### Extent to Which Network Analysis and Other Analyses Can Help HUD Manage Risks Associated with the Contracting Environment

We took a number of steps to examine the extent to which network analysis can help HUD understand contractor fraud risks and how its oversight and data collection approach help identify these risks, including:

- *Literature search and review*— We conducted a search of relevant articles on network-based fraud detection, including the roles of intermediaries and bridging, and their associated statistical measures, such as centrality, density, clustering, relationship indices, and other metrics. We selected and reviewed approximately 40 articles that offer examples of how network analysis can be used to detect potential contractor risks, such as collusive bidding, bribery, and procurement manipulation. The literature we reviewed included theoretical discussions, analytic tests of network or criminal behavior theory, and practical use cases of network analysis to identify criminal behavior and various fraud risks. The studies covered a wide range of models, measures, environments, and outcomes. The themes derived from

these studies provide a general framework for understanding the analysis we conducted of the CDBG-DR contracting network.

- *Developing a data file for further analysis*—We requested data from our selected grantees and subrecipients on contractors and subcontractors and developed a data collection instrument to facilitate coding source data into data fields for further analysis. Sources included CDBG-DR contracts, contractor and subcontractor lists, and contractor payment information, among others, associated with 2017 and 2018 CDBG-DR grant funds.<sup>6</sup> We communicated with grantee and subrecipient officials to ensure we received the correct and complete information in response to our requests. For all four selected grantees and subrecipients, we also retrieved and reviewed information from their public contracting websites such as contract reports, grant reports, responses to technical questions, and contract and subcontract files, where available. We developed our data collection instrument and coding process to include techniques that would help ensure the reliability of the data collected therein for the purposes of mapping out selected grantees' and subrecipients' contractor and subcontractor network and General Services Administration's (GSA) System for Award Management (SAM) data matching. Specifically, we tested the fields in the data collection instrument using selected contract files to establish the baseline framework and improve the reliability of the fields. Then, using a randomly generated number sequence, we selected several test file batches comprised of a mix of entity contract and subcontract files of different formats until we achieved saturation of new data elements. Finally, we created coding instructions and reconciliation process to ensure reliable coding by two independent analysts.

To ensure consistency throughout our coding process of contractor and subcontractor data noted above, we used a two-person independent coding approach. Our substantive coding process involved agreeing on a working file set, performing independent coding of the selected working file set, comparing results and noting discrepancies, and reconciling results through real-time discussion. Once reconciliation was complete, we then performed entity resolution to assign a unique GAO identifier and a standardized business name to the contractors and subcontractors. We combined the results into a final dataset that was reviewed for accuracy. In total, we identified approximately \$4.66 billion in contract awards for a population of 257 unique contractors. However, we were unable to collect complete

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<sup>6</sup>The contract data we requested included contractors for both support and administrative roles, as well as construction contractors.

information on contract amounts awarded through subcontracts needed to report accurate totals for the subcontractor population included in our review. We performed additional electronic testing to further assess the reliability of the data collected. We determined that the data were sufficiently reliable for our purpose of mapping our selected grantees' and subrecipients' contractor and subcontractor networks and data matching to identify contractors and subcontractors registered and/or debarred in SAM.

- *Conducting network analysis*—Using the dataset noted above, we conducted network analysis to map relationships—among grantees, subrecipients, contractors, and subcontractors—and to identify and graphically represent potentially unknown relationships with risk indicators. Network analysis is a set of quantitative and graphical methods to identify the underlying patterns and structures in a complex set of relationships among many entities such as country, organizations, or individuals.<sup>7</sup> We used a network approach to illustrate the utility of such a technique in examining risk in decentralized environments, such as by identifying undisclosed connections to carry out fraud schemes.

As part of our review, we identified “key players,” which are influential individuals or entities in a network that have high levels of betweenness centrality. They are also the set of network members who (1) if they were to leave or be removed, would most disrupt a network or (2) are in a position to most efficiently influence or diffuse information through a network. Being a key player does not mean an entity is more likely to commit fraud. To identify key players in our CDBG-DR contractor network, we calculated a betweenness centrality score for each contractor and subcontractor in the network. In technical terms, betweenness centrality measures the number of shortest paths between each pair of nodes in a network that pass through a given node. We calculated betweenness centrality for each of the 1,063 subcontractors, 4 grantees and subrecipients, and for each of the 257 contractors. We standardized the betweenness scores by the number of pairs of nodes in that network. We chose betweenness centrality because it identifies an entity’s position within a network in terms of its ability to make connections to other pairs or groups in a network. Further, research shows that entities that have high betweenness are recognized as important to risk management

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<sup>7</sup>One of our selected grantees and subrecipients provided limited information on subcontractors relative to the other entities. This may cause the betweenness scores between some contractors and subcontractors to be undercalculated.

because their position in the network enables them to coordinate and communicate with or influence larger numbers of potential participants. We then examined the distribution of betweenness centrality scores and used a score of 1.25 as a cut off to identify the 16 contractors with the highest betweenness centrality scores. We also examined the distribution of betweenness centrality scores for subcontractors and used a score of 0.365 as the cut off to identify the 30 subcontractors. Additionally, we calculated another centrality measures (degree) and one ego network measure (effective size). However, both yielded similar results to the betweenness centrality scores we calculated. For the purposes of this report, we referred to these 46 contractors and subcontractors as key players (based on their scores) and those that may participate in many contracts, and thus connect or influence a wide array of entities.

Using the UCINET network analysis tool, we mapped relationships between the four selected grantees and subrecipients in our review and their prime contractors and subcontractors to identify and graphically represent relational risks in the CDBG-DR contracting environment. To do this, we performed a name-matching exercise of the names of the prime contractors and subcontractors. We then developed graphic representations of the network of our selected CDBG-DR grantees and subrecipients and their prime contractors and subcontractors. We then used UCINET and its NetDraw graphics tool to develop graphic prototypes, which were further refined for this report. For each of the static representations, the graphics juxtaposed four sets of data from our selected grantees and subrecipients to form the following network maps: (1) key players in the selected CDBG-DR contract network and (2) subcontractors that are key players in the network.

We also examined the top seven key players and their contractor characteristics and the award totals within and across grantees. Specifically, we reviewed the number of contracts, total contract dollar amounts, dollar amount of each contract, and the grantee total contract awards, and the contractor total awards. This analysis illustrates how HUD and grantees could better understand the CDBG-DR-wide risk environment and be better positioned to monitor it, especially considering a contractor or subcontractor may appear to be low risk from a grantee-specific review, but when considered from a network-wide perspective, the risk picture may change.

- *Identifying contractors associated with ongoing and remediated investigations of fraud, waste, and abuse*—We reviewed documentation of allegations of fraud, waste, and abuse maintained

by our selected grantees and subrecipients for allegations received between January 2020 and December 2022, along with the status of the allegation. We also obtained a list of closed CDBG cases from HUD OIG for the period June 2020 to September 2022. While such allegations are not proof of wrongdoing, they can be indicative of vulnerabilities that may warrant closer monitoring. Through this review, we identified contractors that (1) were under investigation by our selected grantees or HUD OIG as a result of allegations of fraud, waste, or abuse, as of December 2022 or January 2023, respectively or (2) had had an allegation of fraud, waste, or abuse remediated as of January 2023.<sup>8</sup> To illustrate how such information could be incorporated into a network analysis, we then examined the positions of these contractors within the network.<sup>9</sup>

- *Review of HUD monitoring reports and annual risk analysis assessments*—We examined relevant documentation from HUD—including monitoring reports and annual analysis assessments—and also interviewed HUD officials. We reviewed HUD’s Community Planning and Development Monitoring Handbook, which outlines questions for considerations during monitoring related to procurement. We then analyzed HUD’s monitoring reports for our selected grantees and subrecipients to determine whether any of the procurement transactions from the 46 key players (16 contractors and 30 subcontractors) we identified were reviewed by HUD during monitoring. We also analyzed the same monitoring reports to determine whether any of the procurement transactions from the five contractors associated with ongoing and remediated investigations of fraud, waste, and abuse we identified were included in HUD’s monitoring during this time.

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<sup>8</sup>Waste is the act of using or expending resources carelessly, extravagantly, or to no purpose. Importantly, waste can include activities that do not include abuse and does not necessarily involve a violation of law. Rather, waste relates primarily to mismanagement, inappropriate actions, and inadequate oversight. Abuse is behavior that is deficient or improper when compared with behavior that a prudent person would consider reasonable and necessary business practice given the facts and circumstances, but excludes fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements. Abuse also includes misuse of authority or position for personal financial interests or those of an immediate or close family member or business associate.

<sup>9</sup>Risk is a function of likelihood and impact. Analysis of contractors associated with ongoing and remediated investigations of fraud, waste, and abuse provides context on the likelihood of risk. Examining them in the context of their network centrality provides information on their potential impact.

- *SAM data matching*—Using the data we collected from the selected grantees and subrecipients and GSA’s SAM exclusion and registration data, we also conducted data matching on identifying information such as company name and address to detect contractors and businesses that may have been (1) a registered entity and/or (2) suspended, debarred, or reincarnated (suspended/debarred companies that reform and operate under a new name).<sup>10</sup> For our network analysis and GSA SAM data matching, information was obtained from select grantees and subrecipients (Texas, GLO, Harris County, City of Houston, and Florida DEO). Due to various factors, including variation in program features and differing practices among CDBG-DR grantees and subrecipients, our data matching results are not projectable to other jurisdictions or disasters.

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## Extent to Which HUD’s Grantee Requirements Support Fraud Detection and Training

To assess the extent to which HUD’s grantee requirements support fraud detection and training, we reviewed the *Federal Register* notices allocating the CDBG-DR funds, specifically focusing on HUD’s pre-award certification process and monitoring efforts. We examined relevant documentation—including HUD’s 2017 and 2022 Financial Management and Grant Compliance Certification Checklist (checklist)—related to fraud, waste, and abuse and also interviewed HUD officials. We also reviewed our four selected CDBG-DR grantees’ and subrecipients’ completed checklists to identify their policies and procedures to detect and prevent to fraud, waste, and abuse. We assessed the extent to which our selected grantees and subrecipients received fraud-related training and the extent to which HUD documents or reviews attendance information to determine whether a grantee or subrecipient received training and which grantee and subrecipient staff received training. We compared these findings against HUD’s Community Planning and Development Monitoring Handbook, GAO’s Fraud Risk Framework related to training as a key control activity to mitigate fraud risk and federal internal control standards related to using quality information to achieve the entity’s objective.<sup>11</sup>

We conducted this performance audit from June 2020 to August 2023 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

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<sup>10</sup>General Services Administration’s System for Award Management is the central registration point for businesses seeking contracts with the federal government. SAM also contains information on contractors that have been excluded from receiving federal contracts, such as due to suspensions and debarments.

<sup>11</sup>[GAO-14-704G](#).

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**Appendix I: Objectives, Scope, and Methodology**

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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. We conducted our related investigative work March 2019 through November 2021 in accordance with standards prescribed by the Council of the Inspectors General on Integrity and Efficiency.

# Appendix II: Comments from the Department of Housing and Urban Development



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
WASHINGTON, DC 20410-7000

PRINCIPAL DEPUTY ASSISTANT SECRETARY  
FOR COMMUNITY PLANNING AND DEVELOPMENT

Rebecca Shea  
Director, Forensic Audits and Investigative Services  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

RE: GAO Audit – Draft Report CPD-23-104382

Dear Ms. Shea:

On June 13, 2023, the Government Accountability Office (GAO) issued the draft report entitled, “HUD Should Develop Data Collection Guidance to Support Analysis of Block Grant Fraud Risks” [GAO-23-104382]. The draft report was provided to HUD for review and comment. As part of a GAO review of a range of disaster recovery issues following the 2017 and 2018 disasters, the draft report examines, among other objectives, the extent to which (1) applicant data indicate vulnerabilities to fraud and data quality presents challenges to identifying such vulnerabilities, and (2) network and other analyses can help HUD manage risks associated with the contracting environment.

The draft report includes seven (7) recommendations, most notably references that HUD develop guidance to collect: applicant data to support eligibility decisions, and contractor data to facilitate identifying risks and to determine if a contractor has been suspended, debarred, or excluded from federal contracts.

This letter provides agency comment on the draft report and describes the specific actions that the Department is taking to manage fraud risks associated with Community Development Block Grant disaster recovery (CDBG-DR) funds.

**Recommendation 1.** The Assistant Secretary for Community Planning and Development should develop guidance for CDBG-DR grantees and subrecipients on collecting complete and consistent data to better support applicant eligibility determinations and data analytics to support fraud risk management.

**HUD Comment:**

The Department agrees with this recommendation. Community Planning and Development (CPD) will develop guidance for grantee applicant data collection and provide technical assistance to grantees and subrecipients on best practices for data collection, data format, and protection of Personally Identifiable Information. CPD, however, will not impose new requirements that exceed existing requirements in 2 CFR 200.

[www.hud.gov](http://www.hud.gov)

[espanol.hud.gov](http://espanol.hud.gov)

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**Appendix II: Comments from the Department  
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**Recommendation 2.** The Assistant Secretary for Community Planning and Development should update the Monitoring Handbook for Disaster Recovery Community Development Block Grant monitoring activities to provide additional guidance in the selection of contracts for review. This should include factors such as contractors that present increased risk to the CDBG-DR environment, including those where allegations of fraud, waste, abuse, or mismanagement have been made.

**HUD Comment:**

The HUD Departmental Fraud Risk Management Policy maintains that fraud data analytics will be led at the Departmental level. The Department plans to initiate a fraud risk management process over the next 12 months with CPD as the pilot program office. The Department's Chief Risk Officer (CRO) will oversee this initiative.

Pursuant to HUD Office of Inspector General (OIG) Audit Memorandum 2022-FO-0801 and at the direction of the CRO, CPD agreed to develop and implement a comprehensive fraud risk management program to include, for all CPD programs, including CDBG-DR, program-specific fraud assessments, fraud risk inventories, and periodic fraud risk training. CPD will perform the first iteration of these fraud risk management components on the CDBG and Emergency Solutions Grant programs and will include steps to address unique aspects of CARES Act funding. CPD's fraud risk management program will be continual in nature and CPD will manage the program components, such as assessments, in accordance with industry best practices. CPD will implement the program as our authority allows and encourage dissemination of training and oversight beyond our purview. CPD plans to implement risk assessments on a triannual cycle and include risk-based annual reviews.

By September 1, 2024, CPD will have a fraud analytics methodology in place to use in HUD's data analytics program, and, in turn, CPD staff will become users of said program to the extent that its outputs are useful for CPD's grant management program purposes. CPD will use available data, including but not limited to information collected in the grantee risk assessment and monitoring processes, to begin conducting data analyses to identify potential fraud risks for further review.

As part of this effort, the Department is undertaking a review of relevant CPD monitoring exhibits. In addition to annotating the existing monitoring exhibits covering compliance with requirements in 2 CFR 200, *Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards* containing reviews of internal controls, improper payments, and other areas (e.g., procurement), CPD will develop a dedicated CPD Fraud Risk Monitoring Exhibit for Chapter 34. HUD will annotate specific risk analysis factors and monitoring exhibit questions that may indicate heightened fraud risk and provide regular (usually annual) training for field staff.

With respect to identifying contractors that present an increased risk to the CDBG-DR environment, the Department has concerns about the potential legal liability for taking actions with adverse consequences for contractors that have not been debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs or activities.

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**Appendix II: Comments from the Department  
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Notwithstanding the fraud risk management program discussed above, CPD notes that all allegations of fraud are reported to the Office of the Inspector General for investigation. Allegations are evaluated for possible criminal, civil, or administrative violations and potential remedies. As such, some allegations will result in the initiation of an investigation, while others may be referred internally to the OIG's Office of Audit or Office of Evaluation, to HUD management, or to another law enforcement agency. In criminal matters, HUD OIG works closely with the Department of Justice (DOJ) and local authorities. At the conclusion of the investigation, a report is prepared that will summarize the facts and findings of the investigation. The results of OIG investigations may be used for administrative action by the Department, as well as for criminal and civil action by the DOJ or state and local authorities. If such referrals do not result in criminal prosecution or other administrative actions by the Department, HUD continues monitoring in accordance with the CPD Monitoring Handbook.

**Recommendation 3.** The Assistant Secretary for Community Planning and Development should identify ways to collect and combine contractor and subcontractor data across grantees and subrecipients to facilitate risk analyses, such as by expanding the Disaster Recovery Data Portal, Disaster Recovery Grant Reporting System, or other appropriate systems.

**HUD Comment:**

Please see the discussion in response to Recommendation 2 above. The Departmental Fraud Risk Management Policy maintains that fraud data analytics will be led at the Departmental level.

The Department is taking steps to improve its fraud risk assessment and annual grantee risk analysis. Consistent with the fraud risk management program outlined above, the Department is currently developing a fraud risk assessment template. Using this template, CPD will consider whether contractor and subcontractor data can be incorporated into its fraud risk assessments.

Given the large number of contractors and subcontractors across the grant portfolio, it is not feasible for CPD to collect and combine this information. Responsibility for designing systems to prevent fraud, waste and abuse resides at the grantee level.

**Recommendation 4.** The Assistant Secretary for Community Planning and Development should develop and implement guidance for CDBG-DR grantees and subrecipients to collect contractor and subcontractor data to facilitate identification of contractor and cross-cutting fraud risk through approaches such as network analysis.

**HUD Comment:**

The Department disagrees with this recommendation.

CDBG-DR funds are awarded to grantees as block grants authorized by the Omnibus Budget Reconciliation Act of 1981, including the State CDBG program (78 FR 78619). As further specified by program regulations in 24 CFR 570.489(d) "Fiscal Controls and Accounting Procedures," a State may satisfy its obligation to have fiscal and administrative requirements for

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**Appendix II: Comments from the Department  
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expending and accounting for grant funds by using its own fiscal and administrative requirements rather than by applying the provisions of 2 CFR 200.

Program requirements for CDBG-DR are established by *Federal Register* notice, statute, or CDBG program regulation. Beyond attendance at mandatory OIG training, there is no program requirement for a grantee to undertake specific action, such as collecting contractor data for risk analysis, in furtherance of fraud risk management. Moreover, it is neither practical nor feasible for grantees recovering from a major disaster to implement the type of sophisticated network analysis described in the report while concurrently administering the recovery programs.

**Recommendation 5.** The Assistant Secretary for Community Planning and Development should develop guidance on data elements to be collected by grantees and subrecipients, to determine if a contractor has been suspended, debarred or excluded from working on government contracts.

**HUD Comment:**

The Department agrees with this recommendation. HUD requires that grantees check the debarment list at SAM.gov before awarding a contract. HUD will develop guidance to increase grantee and subrecipient understanding of how to use SAM.gov, clarify the data elements associated with debarment checks, and increase awareness of state and local debarment lists to complement reviews.

**Recommendation 6.** The Assistant Secretary for Community Planning and Development should ensure, as part of its ongoing monitoring process, that grantees have attended fraud-related training as required. This could include requesting and reviewing attendance documentation from the OIG and grantees.

**HUD Comment:**

The Department disagrees with this recommendation. CPD will coordinate with the OIG to request attendance documentation and additional training for CDBG-DR grantees, but CPD disagrees with monitoring CDBG-DR grantees for this purpose. If the HUD OIG is not providing adequate and timely training to CDBG-DR grantees, or has limited space in training offerings, CPD cannot issue a non-compliance Finding to the grantee for failure to attend. As such, the Department will coordinate with the OIG to gather attendance documentation but will not use this information for monitoring grantees. The Department shares the concern however, that there should be transparency in ensuring which grantees have participated in the training and will request that the HUD OIG create a system or other action to notify the Department when grantees fail to attend the training.

**Recommendation 7.** The Assistant Secretary for Community Planning and Development, in coordination with the HUD Office of Inspector General, should ensure that grantees and subrecipients are made aware of available fraud-related training and make training available on demand to grantees and subrecipients.

**HUD Comment:**

The Department agrees with this recommendation. HUD can ensure that grantees and subrecipients are made aware of available fraud-related training but has no authority to direct

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OIG to make training available on demand to grantees and subrecipients. The Department is currently working with the HUD OIG to set up web-based fraud awareness training for CDBG-DR grantees and subrecipients. This training would be available on demand and create an audit trail for all trainees.

Technical Corrections and Clarifications

1. HUD questions the assertion that the “leading practices” recommended in GAO’s Fraud Risk Framework are requirements on federal agencies administering block grants or grantees of such programs (p. 16). As noted above, the Omnibus Budget Reconciliation Act of 1981 and the implementing regulations at 24 CFR 570.489(d) state that grantees may use their own fiscal and administrative requirements for expending and accounting for federal grants. The Department finds efforts to impose additional requirements on grantees to be inconsistent with regulations and statutes.
2. The Department would like to emphasize that the report concerns potential fraud rather than actual fraud or *likely* fraud. As the report states, “data matching results are not proof of fraud” (p.5). Indications of potential fraud merely suggest areas for investigation to determine whether actual fraud has occurred or is likely to occur. As noted above, all allegations of fraud within CDBG-DR are reported to the Office of the Inspector General for investigation.
3. The graphic, “*Households Potentially Receiving Duplicative Benefits from Multiple Programs*” (p. 1), incorrectly states that “households received potentially duplicative benefits.” The study did not confirm receipt of benefits from the Federal Emergency Management Agency (FEMA), Small Business Administration (SBA), National Flood Insurance Program (NFIP), or CDBG-DR. The report’s data matching identified applicants that “had applied for or received assistance” from FEMA, SBA, or Indian Housing Plan (p. 20) and could thus include applicants that did not receive the potentially duplicative assistance. Further, the report notes, “our data did not include information on final [CDBG-DR] assistance paid, if any.” (p. 5 and p. 17, footnote 25). It is therefore misleading to state that applicants “received” potentially duplicative benefits. Furthermore, as the study did not include information on the actual amounts of final assistance paid, it is difficult to interpret the figures associated with specific fraud vulnerabilities. The figures essentially state the amounts potentially at risk had grantees undertaken no duplication of benefits review after an initial eligibility determination.
4. The report overstates fraud risk in several instances:
  - a. In considering potential duplication of benefits, the report fails to consider the actual amount of CDBG-DR assistance provided, if any, following duplication of benefits reviews. Grantees conduct duplication of benefits reviews on an ongoing basis as projects progress from intake to construction and new information on assistance from insurance payments and other sources become available. Grantees adjust award calculations as new information becomes available on other assistance received. As such, the report’s use of initial award amounts for

- the GAO-identified pool of 575 households who might have received assistance, that was not reported may overstate the potential fraud remaining after a grantee's verification of benefits and final duplication of benefits analysis (p. 20).
- b. In practice, substantial time elapses between an initial eligibility determination and the provision of assistance, allowing time for clerical errors in the record, such as blank fields to be addressed or updated information to be received and incorporated into award calculations. The report's focus on an approved amount at a specific point in time ignores the full scope of the grantee's internal controls. The report further ignores the grantee's efforts to recapture funds where appropriate. It is common for duplicative assistance to be reported or received after CDBG-DR assistance is provided, and standard practice to recapture funds in such events.
  - c. In assessing potential Duplication of Benefits from SBA assistance, the report does not reflect the many situations in which SBA loan assistance is not duplicative. For instance, an SBA loan that is awarded but later canceled, or is drawn but used for recovery purposes, may not constitute a duplication of benefits based on section 1210 of the Disaster Recovery and Reform Act of 2018 (Disaster Recovery Reform Act). If an SBA loan was used for a disaster-related purpose, it is not considered "assistance" and would not be duplicative. GAO found 75 households that were determined eligible for SBA assistance before applying to CDBG-DR and three households that were determined eligible for SBA assistance after applying to CDBG-DR (p. 21). Actual receipt of SBA assistance, if any, and its use was not determined. It is misleading to imply that all SBA assistance would be duplicative.
  - d. In assessing applicant income, the report implies that applicants with missing income information at the point of eligibility determination may have been ineligible. A grantee may provide assistance to an applicant under the Urgent Need national objective (with no income limit) or the Low and Moderate-Income national objective. Further, substantial amounts of time may occur between an initial eligibility determination and the provision of assistance, allowing time for clerical errors in the record, such as blank fields, to be addressed. Accordingly, missing income information at the eligibility determination stage may not impact the applicant's eligibility, depending on the grantee's program design. The report indicates that 2,200 applicant files out of 8,260 were missing income information or reported no income at the point of eligibility determination (p. 29).
  - e. In considering uninsured applicants with income over 120% of the median income, the report fails to determine whether the property was located in a floodplain. Only properties within a floodplain at the time of the storm, owned by an applicant with income more than 120% of median income, are ineligible for assistance. The report found 117 households without NFIP insurance with income over 120% of the Area Median Income (p. 29). The report notes that confirming floodplain status and private insurance status was not part of the scope of the review, and "as such we do not know whether or not these properties may have been ineligible to receive CDBG-DR assistance." (p. 30, footnote 43)
  - f. In considering ineligible properties, the report assumes properties that appeared to be vacant at the time of the storm (from the United States Postal Service (USPS)

**Appendix II: Comments from the Department  
of Housing and Urban Development**

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records) were ineligible. Properties identified as vacant at the time of the storm may not have been ineligible for CDBG-DR assistance if the home was not a second home as defined in CDBG-DR notices. While obtaining assistance for a vacant home ineligible under a grantee's program guidelines could be potential fraud, CDBG-DR does allow assistance to such properties if the grantee chooses to provide it. Similarly, a rental property, investment property or inherited property that is the applicant's primary residence would not be considered a (prohibited) second home and could be eligible for assistance. In addition, per the February 9, 2018 Notice, a property may be eligible for assistance if it qualifies at the time of application for assistance rather than at the time of the storm. The report identifies 50 properties that appeared to be vacant at the time of the storm (from USPS records) (p.25).

5. The report does not clearly identify the types of contractors recommended for review. Program management and program services delivery contractors pose very different risks from construction contractors.

Thank you for the opportunity to comment on this draft report.

Sincerely,

**MARION  
MCFADDEN**

Marion M. McFadden  
Principal Deputy Assistant Secretary  
for Community Planning and Development

Digitally signed by MARION  
MCFADDEN  
Date: 2023.07.31 18:50:53  
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# Appendix III: Comments from the Texas General Land Office



TEXAS GENERAL LAND OFFICE  
COMMISSIONER DAWN BUCKINGHAM, M.D.

June 30, 2023

Rebecca Shea, Director of Forensic Audits and Investigative Services  
Government Accountability Office  
202-512-6722

RE: GAO-23-104382 Draft Report

Dear Director Shea:

The Texas General Land Office Community Development and Revitalization Division (GLO) appreciates the opportunity to comment on draft report GAO-23-104382, with an anticipated issuance in July 2023. GLO acknowledges the U.S. Government Accountability Office's (GAO) recommendations to reduce fraud risk within the U.S. Department of Housing and Urban Development (HUD), Community Development Block Grant – Disaster Recovery (CDBG-DR) programs.

CDBG-DR programs need flexibility in design to adapt, innovate, and best serve those in communities impacted by disasters. As noted in the report, disasters occur throughout our communities yearly. With each new year, disasters can result in an increase of new grantees and subrecipients. For less experienced entities, new or additional funding can create its own challenges when implementing a recovery program. A one-size fits all approach may not uniformly reduce fraud risks for all grantees and subrecipients. HUD should consider the impacts of future guidance that may increase the administrative burdens to carry out program activities for potential fraud occurrences in relation to historical fraud trends. Specifically, how new guidance will be attainable for new or smaller grantees and subrecipients.

Internal controls aid in fraud prevention and provide a cost-effective way to reduce fraud risks. Improving access and awareness of fraud risk training would be beneficial but could prove even greater when associated with instructional training on how to detect or analyze data for potential fraud. Program designs also impact potential fraud risks; however, post-disaster impacts for individuals of low- and moderate- income applicants can mean a loss of paperwork and official documents. Each individual's efforts to replace documentation can be difficult, costly, and time-consuming.

Requiring specific source documentation could reduce fraud risks, but also limit or delay grantees' and subrecipients' ability to help people back into their homes and communities. It requires applicants to work within the timeframes of other various entities that may create a barrier to entry to these programs. Delays in the application process could unjustly impact those with different socioeconomic statuses and lose out on funding simply through the application period. The delays for applicants seeking replacement documentation can in turn exacerbate economic losses in those communities and inhibit long-term recovery.

Detection procedures included in the Federal Registers required participants to be able to notify

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P.O. Box 12873, Austin, Texas 78711-2873  
512-463-5001 glo.texas.gov

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**Appendix III: Comments from the Texas  
General Land Office**

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grantees and subrecipients of possible fraud. The report's recommendations encourage additional detection procedures: however, some data used by the GAO to determine potential risks are not readily available or required of grantees and subrecipients. Adding requirements to conduct complex analyses would require training, staffing, and applications to facilitate additional data science to detect fraud. Grantees and subrecipients could benefit from these analyses if HUD facilitates comprehensive training or provides completed analytical reports through existing databases and reporting systems. These HUD actions would allow grantees and subrecipients greater ability to act and monitor fraud risks in a consistent manner.

GLO appreciates GAO's dedication and commitment to the improve processes, procedures, and controls with HUD to better serve people and communities impacted by disasters.

Sincerely,

*Abby McClean*

Abby McClean, Deputy Director  
Monitoring & Quality Assurance  
General Land Office - Community Development and Revitalization

cc: Heather Lagrone, Deputy Director GLO

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# Appendix IV: GAO Contacts and Staff Acknowledgments

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## GAO Contact

Rebecca Shea, (202) 512-6722 or [SheaR@gao.gov](mailto:SheaR@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, Heather Dunahoo, Mariana Calderón, and April Gamble (Assistant Directors), Tina Paek (Analyst-in-Charge), Michael Distler, David Dornisch, Tangere Hoagland, Brenda Mittelbuscher, Haley Klosky, and April Van Cleef made key contributions to this report. Also contributing to the report were Mark Braza, Sara Daleski, Leia Dickerson, Colin Fallon, Barbara Lewis, Maria McMullen, James Murphy, Christopher Schmitt, and Mike Silver.

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