United States Government Accountability Office

Report to Congressional Committees

July 2023

TRANSIT SECURITY

FEMA Should Improve Transparency of Grant Decisions

GAO-23-105956

GAO Highlights

Highlights of GAO-23-105956, a report to congressional committees

July 2023

TRANSIT SECURITY

FEMA Should Improve Transparency of Grant Decisions

Why GAO Did This Study

Public transit systems' open design expedites the movement of large numbers of people but also makes them attractive targets for attack and difficult to secure for public transit agencies. The National Defense Authorization Act for Fiscal Year 2022 includes a provision for GAO to review FEMA's management of the Transit Security Grant Program and assess how grant-funded projects improve public transit security.

This report: (1) describes the types of transit security projects for which FEMA awarded grants from fiscal years 2015 through 2021, (2) evaluates the extent to which FEMA's process for awarding grants is consistent with relevant federal grant requirements, and (3) evaluates how FEMA assesses risk to transit agencies' security when awarding grants. GAO analyzed FEMA's grant and scoring data from fiscal years 2015 through 2021, reviewed program documents, and interviewed all fiscal year 2021 grantees, which was the most recently completed award cycle when GAO began its review.

What GAO Recommends

GAO is making four recommendations to the Secretary of Homeland Security to ensure that FEMA (1) accurately describe all the criteria it uses to score applications in the Notice of Funding Opportunity, (2) select applications for award in accordance with its publically disclosed merit review process, (3) incorporate cyber threats into its risk assessment, and (4) document the underlying assumptions and justifications for its risk assessment. DHS concurred with GAO's recommendations.

View GAO-23-105956. For more information, contact Tina Won Sherman, 202-512-8461, ShermanT@gao.gov

What GAO Found

The Federal Emergency Management Agency (FEMA) manages the Transit Security Grant Program, a discretionary grant program that provides grants to public transit agencies to protect critical transportation infrastructure and the traveling public from terrorism. FEMA awarded nearly three-quarters of grants ($614 million) to public transit agencies for law enforcement activities ($245.2 million) and equipment ($211.5 million) from fiscal years 2015 through 2021. FEMA awarded remaining grants for infrastructure projects, training and exercises, public awareness campaigns, and planning.

Security Camera Funded by the Transit Security Grant Program

Source: GAO. | GAO-23-105956

While FEMA's award process was consistent with some relevant federal grant requirements, it did not meet other requirements for transparency of award decisions. Specifically, FEMA did not accurately describe its grant scoring criteria in the program's fiscal year 2021 Notice of Funding Opportunity, as required. By accurately describing the criteria it uses to score grant applications, FEMA would improve transparency and help ensure applicants make informed decisions when applying. Further, FEMA described the merit review process to competitively score applications in its Notice of Funding Opportunity, but did not use the results of its process as the sole basis for award decisions. For example, FEMA awarded grants to lower-scoring applications between fiscal years 2015 and 2021. By not selecting applications to recommend for award in accordance with its publicly disclosed merit review process, FEMA risked affecting the objectivity, fairness, and transparency of the process and could face questions about the integrity of the decisions.

In fiscal year 2021, FEMA assessed physical terrorist threats to transit agencies, as well as their vulnerabilities to, and the estimated consequences of, an attack, but did not consider cyber threats in its risk model. FEMA could better reflect the nature of current threats to transit agencies if it included cyber threats in the assessment. In addition, FEMA did not document the assessment's underlying assumptions and justifications. Improved documentation would allow officials to assess whether the assumptions remain true in a changing risk environment.

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Abbreviations

BASE	Baseline Assessment for Security Enhancement
DHS	Department of Homeland Security
FEMA	Federal Emergency Management Agency
TSA	Transportation Security Administration
TSGP	Transit Security Grant Program

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July 26, 2023

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

The Honorable Mark E. Green, M.D.
Chairman
The Honorable Bennie G. Thompson
Ranking Member
Committee on Homeland Security
House of Representatives

Public transit systems have an open design to expedite the free flowing movement of large numbers of people, making them attractive targets for attack and difficult to secure for public transit agencies. There has been a rise in violent assaults on public transit in the United States in recent years.[1] For example, on April 12, 2022, a shooter opened fire in a subway car in New York City, injuring at least 10 passengers.

The Department of Homeland Security's (DHS) Transit Security Grant Program (TSGP) is a discretionary grant program that provides grants to public transit agencies to protect critical transportation infrastructure and the traveling public from terrorism, and to increase transportation infrastructure resilience.[2] The Federal Emergency Management Agency (FEMA), a DHS component agency, is responsible for managing the TSGP. Eligible transit agencies can apply for grants to fund a variety of security enhancement projects. Projects may include, for example,

[1]Since 2016, the United States leads economically advanced countries in the total number of attacks on public surface transportation and number of attacks with fatalities. All 20 attacks in the United States that resulted in fatalities occurred since 2016, and 10 of those occurred in 2020-2021. See Mineta Transportation Institute, *Changing Patterns of Violence Pose New Challenges to Public Surface Transportation in the United States* (San Jose, CA: San Jose State University, 2022).

[2]For discretionary grant programs, federal agencies are to select grantees using a competitive review process based on merit and eligibility. In contrast, for mandatory grants, federal agencies are to award grants to each eligible entity under the conditions and in the amount specified in the authorizing statute.

physical security enhancements at rail and bus stations, or trainings for transit agency employees. Projects must address vulnerabilities identified in transit agencies' security assessments or plans to receive TSGP grants.

FEMA is required to administer the TSGP in accordance with the Office of Management and Budget's *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).[3] The Uniform Guidance provides a government-wide framework for grants management and requires that, for discretionary grants, federal agencies design and execute a merit review process.[4]

When we last reviewed the TSGP in 2009, we found that DHS used a risk analysis model that incorporated threat, vulnerability, and consequence information to allocate TSGP funding and award grants. We recommended, among other things, that DHS strengthen its risk model by improving the way it measured transit agencies' vulnerabilities to terrorism. DHS updated the risk model for the 2012 grant cycle in response to our recommendation.[5]

The National Defense Authorization Act for Fiscal Year 2022 includes a provision for us to review FEMA's management of the TSGP and to assess how grant-funded projects address public transportation infrastructure security.[6] This report: (1) describes the types of transit security projects for which FEMA awarded grants from fiscal years 2015 through 2021, (2) evaluates the extent to which FEMA's process for awarding grants is consistent with relevant federal grant requirements,

[3]The Uniform Guidance is an authoritative set of rules and requirements for federal grant awards codified in the Code of Federal Regulations. See 2 C.F.R. pt. 200. DHS adopted the Office of Management and Budget's consolidated grants management guidance and gave it regulatory effect. 79 Fed. Reg. 75,871, 76,084 (Dec. 19, 2014) (codified at 2 C.F.R. § 3002.10).

[4]The Uniform Guidance describes a merit review process as an objective process of evaluating federal award applications in accordance with written standards set forth by the federal awarding agency. 2 C.F.R. § 200.205.

[5]In 2009, we made a total of seven recommendations to DHS related to the TSGP; we closed all recommendations as implemented. GAO, *Transit Security Grant Program: DHS Allocates Grants Based on Risk, but Its Risk Methodology, Management Controls, and Grant Oversight Can Be Strengthened*, GAO-09-491 (Washington, D.C.: June 8, 2009).

[6]Pub. L. No. 117-81, § 6422, 135 Stat. 1541, 2419 (2021).

and (3) evaluates how FEMA assesses risk to transit agencies' security when awarding grants.

To address our first objective, we collected and analyzed FEMA data on the TSGP grants awarded from fiscal years 2015 through 2021 and program documents describing eligible project types.[7] We selected this time frame for review because the period of performance was 36 months in each of these years, meaning each grant recipient had the same amount of time to complete their projects during this time period.[8] Additionally, the amount available for award was consistent each year during this time (approximately $88 million).

We analyzed FEMA data on the number of grants awarded each year, grant recipients and their locations, amounts awarded, and project categories FEMA assigned to each grant. We assessed the reliability of FEMA's data by checking for missing values, errors, or inconsistencies and reviewing each grant to verify that the assigned project type category was appropriate. We interviewed FEMA officials to understand how they developed the data and confirm any changes we made. We determined that the data were sufficiently reliable for the purposes of describing program grants, recipients, and project types. We report additional information from this analysis in Appendix I.

For objectives one and two, we interviewed officials from all 23 transit agencies that received a TSGP grant in fiscal year 2021. We selected grant recipients from fiscal year 2021 because it was the most recently completed award cycle when we began our review in March 2022, and because the majority of the grant recipients had received TSGP grants in previous years as well. We used a semi-structured interview methodology to obtain generalizable information about fiscal year 2021 grant recipients' experiences with the TSGP. We conducted pretest interviews with officials from two transit agencies in order to ensure that the questions were clear, unbiased, and easily answered. We also visited three of these

[7]We collected the Notices of Funding Opportunity from fiscal years 2015 through 2021, the fiscal year 2021 *Preparedness Grants Manual*, and example application materials and periodic reports.

[8]In fiscal year 2014, the period of performance was 24 months. In fiscal year 2022, the period of performance was 48 months for infrastructure projects and 36 months for all other project types.

transit agencies to observe TSGP-funded security enhancements.[9] We include additional information from our interviews with transit agency officials in Appendix II.

To address our second objective, we analyzed FEMA's fiscal year 2021 grant award process and scoring data for each eligible application FEMA received that year, and compared them with relevant sections of the Uniform Guidance.[10] We interviewed officials from FEMA's Grant Programs Directorate, as well as senior FEMA and DHS officials, to obtain additional information about the grant application review, evaluation, and selection process.

We assessed the reliability of FEMA's scoring data by reviewing the scoring spreadsheets for any gaps and errors, and interviewing agency officials to understand how they developed the spreadsheets. We determined that the scoring data were sufficiently reliable for the purposes of assessing FEMA's award process against requirements.

To address our third objective, we collected and reviewed FEMA's fiscal year 2021 report to Congress and standard operating procedures describing FEMA's risk assessment methodology for the TSGP.[11] We reviewed the methodology to identify the inputs FEMA used to assess risk to transit agencies, and compared it with DHS's National Infrastructure Protection Plan and our best practices for economic analyses.[12] We interviewed officials with FEMA's Preparedness Grants Division, including its Terrorism Risk Section, to obtain additional information about the risk assessment methodology. The Preparedness Grants Division provides

[9]We visited Washington Metropolitan Area Transit Authority, Los Angeles County Metropolitan Transportation Authority, and New York Metropolitan Transportation Authority. We selected these agencies because of the amount of funding they received between fiscal years 2015 and 2021, their recently completed security projects could easily be observed, and their proximity to our working locations.

[10]2 C.F.R. §§ 200.204, .205; 2 C.F.R. pt. 200, app. I. We selected these sections of the Uniform Guidance because they contain requirements for how FEMA is to design its grant application review process and select recipients, a significant aspect of FEMA's management of the program.

[11]Federal Emergency Management Agency, *"Risk Methodology: Calculating Risk for the FY 2021 DHS Preparedness Grant Programs"* (Feb. 18, 2022).

[12]Department of Homeland Security, *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience* (2013); Department of Homeland Security, *Supplemental Tool: Executing a Critical Infrastructure Risk Management Approach*; and GAO, *Assessment Methodology for Economic Analysis*, GAO-18-151SP (Washington, D.C.: April 10, 2018).

programmatic oversight of FEMA's preparedness grants. Appendix III contains a more detailed description of our scope and methodology.

We conducted this performance audit from March 2022 to July 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.

Background

TSGP Overview

In 2003 and 2004, DHS provided grants for transit security through its Urban Area Security Initiative grant program. The Urban Area Security Initiative is a risk-informed formula grant program that awards grants to high-threat, high-density urban areas to enhance their overall security and preparedness levels and to prevent, respond to, and recover from acts of terrorism.[13] DHS then established the TSGP in 2005. The Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act) required the Secretary of Homeland Security to establish a grant program to fund security improvements for eligible public transportation agencies.[14] The act codified certain requirements for the program, such as permissible uses of funds and that DHS select grant recipients based solely on risk.[15] DHS subsequently modified the TSGP to be consistent with the requirement from the 9/11 Commission Act.

FEMA manages a diverse portfolio of grant programs, including a variety of preparedness grants. These programs are intended to enhance the capabilities of state and local governments to prevent, prepare for, protect against, respond to, recover from, and mitigate terrorist attacks and other disasters. FEMA's Grant Programs Directorate is responsible for the

[13]Eligible urban areas are determined through an analysis of relative risk of terrorism faced by the 100 most populous metropolitan statistical areas.

[14]Pub. L. No. 110-53, § 1406, 121 Stat. 266, 405-08 (codified as amended at 6 U.S.C. § 1135).

[15]6 U.S.C. § 1135(b), (c)(2).

program management of DHS's preparedness grants.[16] The Transportation Infrastructure Security Branch within the Grant Programs Directorate manages FEMA's four transportation security-related grant programs, including the TSGP.[17] In 2012, we reported on potential overlap and duplication among four preparedness grant programs, including the TSGP.[18] DHS implemented our recommendations to help reduce the risk of duplication and better assess the effectiveness of these grant programs.

The Transportation Security Administration (TSA) within DHS is the primary federal agency responsible for security in all modes of transportation in the United States, including mass transit and passenger rail, and provides subject matter expertise to support FEMA's management of the TSGP.[19] For example, TSA shares security information with FEMA to inform program policy and funding priorities and shares information about transit agencies to support FEMA's assessment of applicants' eligibility.[20] TSA supports FEMA's risk assessment process by providing FEMA with relevant risk information. TSA also assists FEMA in developing TSGP award recommendations each year.

[16]In 2018, we reported on the largest preparedness grant programs FEMA manages—the State Homeland Security Program and the Urban Area Security Initiative. The State Homeland Security Program provides federal assistance to support states' implementation of homeland security strategies related to terrorism, and FEMA awards grants annually to all states and territories. See 6 U.S.C. § 605. In fiscal year 2021, FEMA awarded $415 million through the State Homeland Security Program and $615 million through the Urban Area Security Initiative. See GAO, *Homeland Security Grant Program: Additional Actions Could Further Enhance FEMA's Risk-Based Grant Assessment Model*, GAO-18-354 (Washington, D.C.: Sept. 6, 2018).

[17]In addition to the TSGP, FEMA manages three other transportation infrastructure security grant programs. The Port Security Grant Program provides grants to state, local and private-sector partners to help protect critical port infrastructure from terrorism and enhance maritime domain awareness. The Intercity Bus Security Grant Program and the Intercity Passenger Rail Program provide owners and operators of intercity bus systems and Amtrak, respectively, with grants to help protect surface transportation infrastructure and the traveling public from acts of terrorism.

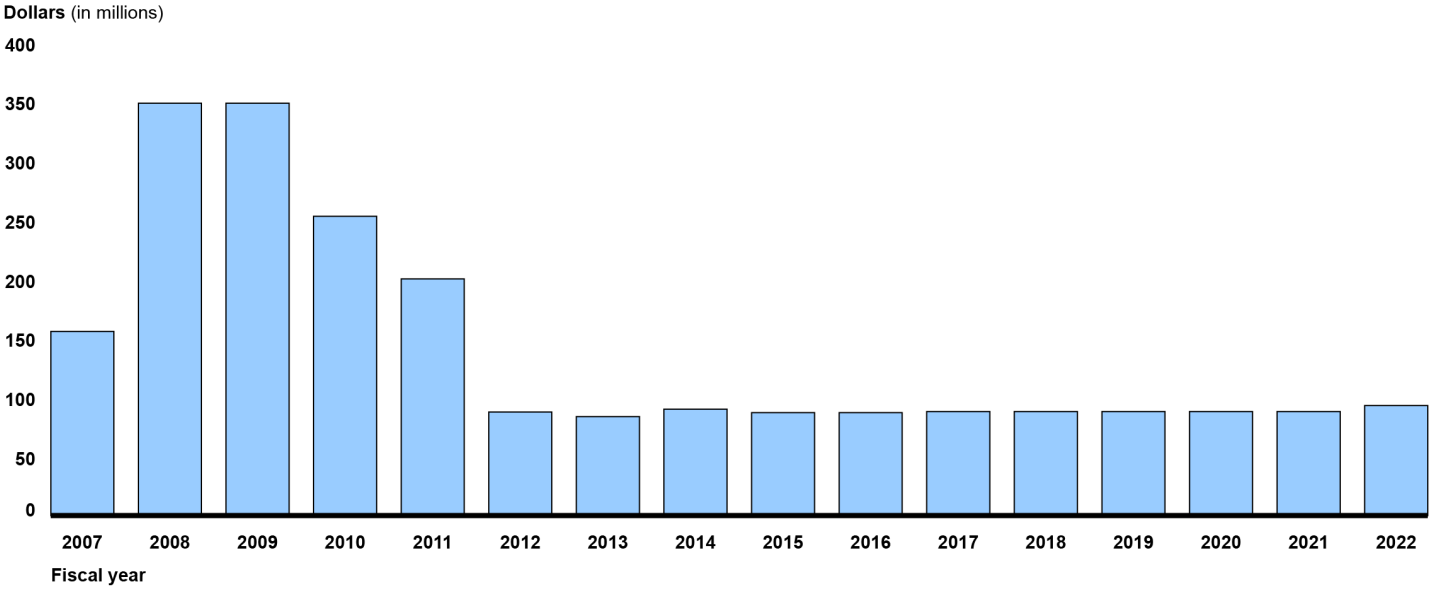
[18]GAO, *Homeland Security: DHS Needs Better Project Information and Coordination among Four Overlapping Grant Programs*, GAO-12-303 (Washington, D.C.: Feb. 28, 2012).

[19]Pub. L. No. 107-71, § 101(a), 115 Stat. 597 (2001) (codified at 49 U.S.C. § 114(d)).

[20]In 2020, FEMA and TSA signed a memorandum of agreement outlining the roles and responsibilities of each agency for implementing and managing surface transportation security grant programs for DHS, including the TSGP.

Since 2007, the TSGP awards have ranged from a total of $83.7 to $348.6 million annually.[21] Annual funding peaked in 2008 and 2009, generally declined from fiscal years 2010 through 2012, and has remained relatively consistent since. See figure 1 for the TSGP annual total awards from fiscal years 2007 through 2022.

Figure 1: Transit Security Grant Program Annual Total Awards, Fiscal Years 2007 Through 2022



Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

Risks to Transit Systems

DHS defines risk as a function of three elements: threat, vulnerability, and consequence. Threat is an indication of the likelihood that a specific type of attack will be initiated against a specific target or class of targets. Vulnerability is the probability that a particular attempted attack will succeed against a particular target or class of targets. Consequence is the effect of a successful attack. DHS outlined its risk management framework for critical infrastructure protection, including the transportation

[21]TSGP awards depend on the annual appropriations to FEMA for the program.

systems sector, in the National Infrastructure Protection Plan and the DHS Risk Management Fundamentals.[22]

Transit systems are inherently vulnerable to physical attacks (such as improvised explosive devices, active shooters, and chemical or biological attacks) due in part to factors such as high ridership, open access points, limited exit lanes, and fixed, publicly available schedules. In addition, TSA has reported that risks increase in urban areas where multiple transportation systems and high volumes of travelers merge at stations.

Further, transit systems rely on technology and internet-connected devices to manage and secure certain business functions, such as websites or communications, increasing their risks from a cyberattack. Transit agencies also increasingly rely on networked systems for tracking, signals, and operational controls of transportation equipment and services, such as computer-based systems that control signaling and train speed. Cyberattacks have the potential to significantly affect both business information systems and operational control systems.[23]

TSA periodically assesses vulnerabilities of public transportation systems through the Baseline Assessment for Security Enhancement (BASE) program. BASE is a voluntary program in which TSA evaluates the security programs of transportation entities, such as public transit agencies, offers technical assistance, and shares best practices. TSA Surface Transportation Security Inspectors assess and score transit agencies' security programs against a checklist of security fundamentals and provide transit agencies with a detailed report and recommended

[22]DHS first created the *National Infrastructure Protection Plan* in 2006 to guide the national effort to manage security risk to the nation's critical infrastructure, such as through coordination of agencies and 16 various critical infrastructure sectors, including the transportation systems sector. Department of Homeland Security, *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience* (2013); Department of Homeland Security, *Risk Management Fundamentals: Homeland Security Risk Management Doctrine* (April 2011).

[23]American Public Transportation Association, *Cybersecurity Considerations for Public Transit* (Washington, D.C.: Oct. 17, 2014).

improvements specific to their operations. We previously reported on TSA's BASE program in 2020 and 2017.[24]

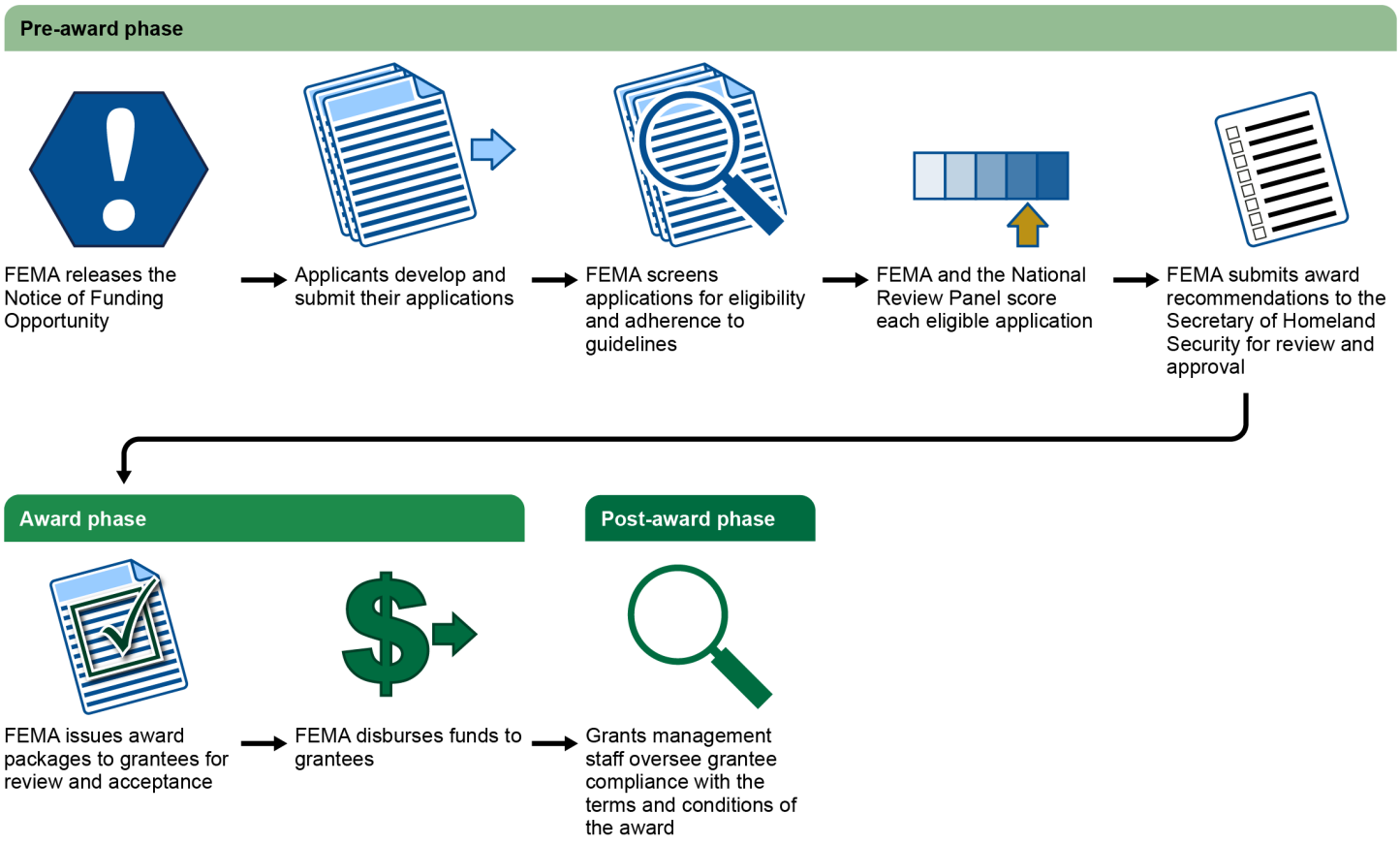
Award Process

FEMA, and federal grant-making agencies in general, follow a common grant life cycle when administering discretionary grant programs. In the pre-award phase, upon the enactment of the annual DHS appropriations act, FEMA announces the funding opportunity in a public notice, called the Notice of Funding Opportunity, and potential grantees submit applications for review. FEMA officials review and select project applications to recommend for award, and the Secretary of Homeland Security makes the final award decisions.[25] In the post-award phase, grants management officials oversee grantees' compliance with the terms of the grant, such as by reviewing reports and performing on-site visits, and close out the grant. See figure 2 for an overview of FEMA's discretionary grant award process.

[24]In April 2020, we recommended that TSA update the BASE cybersecurity template to reflect cybersecurity key practices, and update its guidance for TSA representatives. TSA has taken action to fully address our recommendations. See GAO, *Passenger Rail Security: TSA Engages with Stakeholders but Could Better Identify and Share Standards and Key Practices*, GAO-20-404 (Washington, D.C.: April 3, 2020). In December 2017, we made four recommendations to TSA related to its risk mitigation program and its program objectives, among other things, and TSA has taken action to fully address our recommendations. See GAO, *Transportation Security Administration: Surface Transportation Inspector Activities Should Align More Closely With Identified Risks*, GAO-18-180 (Washington, D.C.: Dec. 14, 2017).

[25]The authorizing statute for TSGP provides that the Secretary is to select the recipients of grants based solely on risk. 6 U.S.C. § 1135(c)(2).

Figure 2: Federal Emergency Management Agency (FEMA) Discretionary Grant Award Process



Source: GAO analysis of grants.gov and FEMA data; GAO (illustrations). | GAO-23-105956

Note: For discretionary grant programs, federal agencies are to select grantees using a competitive review process based on merit and eligibility.

TSGP Requirements

Public transit agencies are eligible to apply for TSGP if they operate intracity bus, ferry, or passenger rail systems.[26] Transit agencies must

[26]Passenger rail includes heavy, commuter, light, and intercity rail systems. Heavy rail is an electric railway that can carry a heavy volume of traffic. Heavy rail, which includes most subway systems, is characterized by high speed and rapid acceleration, passenger rail cars operating singly or in multicar trains on fixed rails, separate rights-of-way from which all other vehicular and foot traffic is excluded, sophisticated signaling, and high-platform loading. Commuter rail is characterized by passenger trains operating on railroad tracks and providing regional service, such as between a central city and its adjacent suburbs. Light rail systems typically operate passenger rail cars singly (or in short, usually two-car, trains) and are driven electrically with power being drawn from an overhead electric line.

also be located within a historically eligible Urban Area Security Initiative jurisdiction or have daily ridership of at least 100,000 passenger trips to be eligible.[27] Other eligibility requirements for transit agencies include participation in a regional transit security working group and having a recent security plan based on a security assessment.

Eligible transit agencies may submit up to eight applications to the TSGP for security enhancement projects each fiscal year.[28] Transit agencies may also submit up to five additional project applications on behalf of police departments that provide security for their transit system but are not part of their agency.[29] These additional projects must be focused on supporting a transit system's operational security capability. Transit agencies may also apply to use a portion of their award to cover grant management and administration expenses.

Grantees must complete their security projects and expend awarded funds within a designated time frame, called the period of performance. The National Defense Authorization Act for Fiscal Year 2022 codified the period of performance at 48 months for infrastructure projects and 36 months for all other project types.[30] Previously, FEMA had discretion to establish the period of performance. From fiscal years 2015 through 2021, the period of performance was 36 months. For more information about this change, as well as transit agencies' use of grant funds for management and administration expenses, see Appendix II.

[27]According to FEMA officials, a historically eligible Urban Area Security Initiative jurisdiction is any urban area that has ever been eligible for the Urban Area Security Initiative. Passengers are counted each time they board public transportation vehicles no matter how many vehicles they use to travel from their origin to their destination.

[28]Transit agencies can apply for eight security projects for each urban area in which they operate. Some transit agencies, like New Jersey Transit, operate in more than one urban area and are allowed to submit eight project applications for each urban area each fiscal year.

[29]For example, the New York Police Department provides security for the New York Metropolitan Transportation Authority but is a separate entity from the transit agency.

[30]Pub. L. No. 117-81, § 6421, 135 Stat. 1541, 2418 (2021). According to FEMA officials, infrastructure projects (also called capital projects) are larger projects that generally involve ground disturbance and construction and are not portable.

FEMA Awarded Majority of Grant Funds for Law Enforcement and Equipment in Fiscal Years 2015 through 2021

FEMA Awarded Grants for Six Types of Security Projects

We found that, between fiscal years 2015 and 2021, FEMA awarded grants for six types of transit security projects, as described in figure 3 below.[31] FEMA awarded grants for a total of 437 TSGP projects ($614 million) during this period. The awards ranged from $6,000 to $9.7 million and averaged $1.4 million each.

Figure 3: Transit Security Grant Program Project Types, Fiscal Years 2015 through 2021

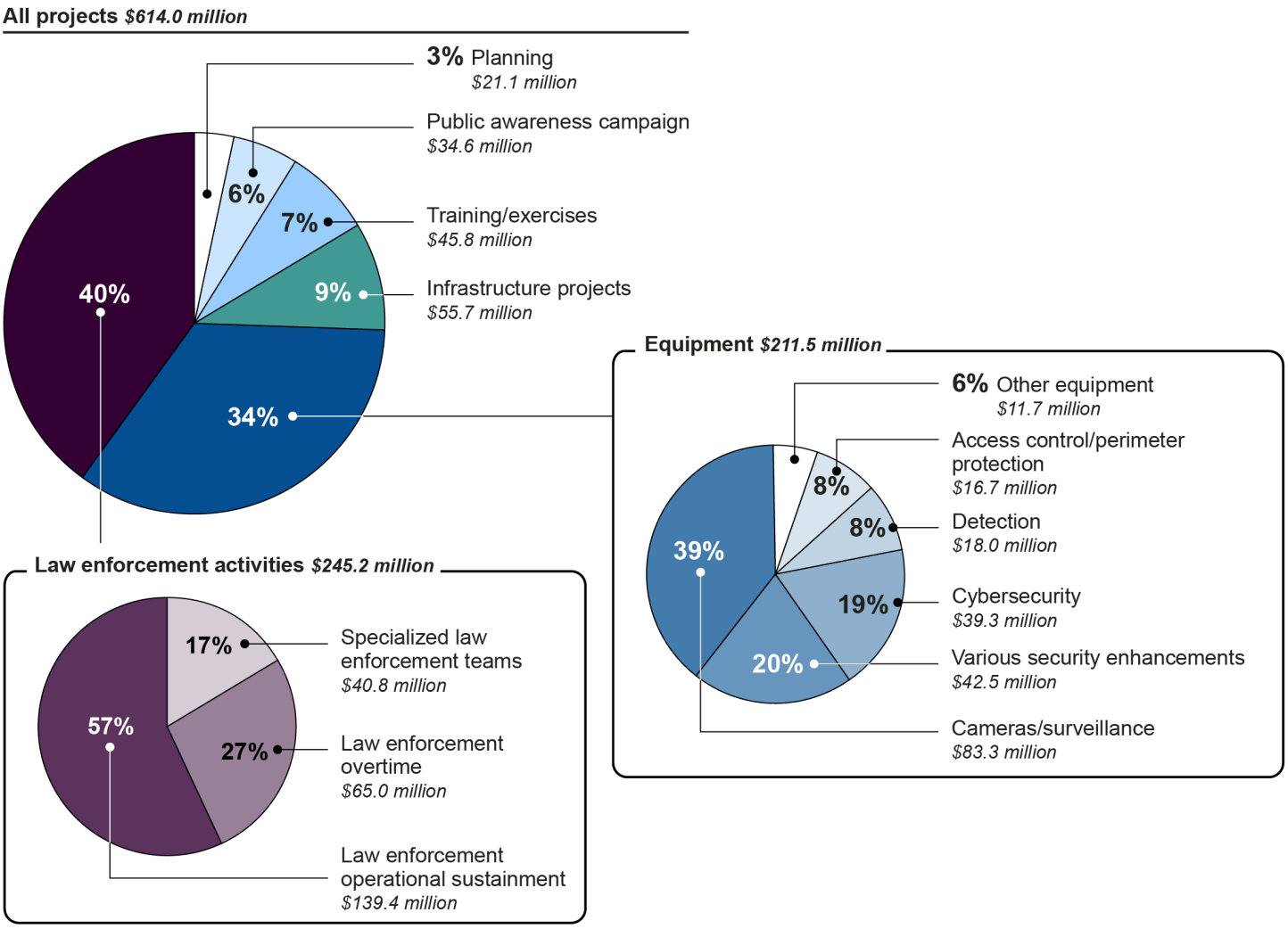
Source: GAO analysis of Federal Emergency Management Agency data; GAO (illustrations). | GAO-23-105956

[31]We selected fiscal years 2015 through 2021 for review because the period of performance was consistent during that time (36 months). The appropriations for the program were also consistent during that time, at approximately $88 million annually. Additionally, fiscal year 2021 was the most recently completed award cycle when we initiated our review in March 2022.

FEMA Awarded Majority of Grant Funds for Law Enforcement and Equipment Projects

Of the six types of projects FEMA funded in fiscal years 2015 through 2021, we found that FEMA awarded nearly three-quarters (74 percent) of program funding for law enforcement activities ($245.2 million) and for equipment ($211.5 million). The remaining project types, in order of funding amount, were infrastructure projects, training and exercises, public awareness campaigns, and planning (see fig. 4 below).

Figure 4: Transit Security Grant Program Projects by Funding Amount, Fiscal Years 2015 through 2021



Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

Note: FEMA considers training and exercises as two separate project types in its data. We combined these activities into one project type because they frequently occurred together in a single project. In addition, FEMA does not track public awareness campaigns as a separate project type in its data. FEMA categorized these projects as multiple different project types. However, because of the large

number of public awareness campaigns and their distinctness from the other project types, we chose to categorize them as a separate project type.

FEMA Awarded the Largest Share of Grant Funds for Law Enforcement Activities

We found that, between fiscal years 2015 and 2021, FEMA awarded grants for three types of law enforcement activities. Those grants, in order of funding amount, went to:

- **Sustain existing specialized teams.** FEMA awarded the largest share of law enforcement activities grant funds—$139.4 million—for transit agencies to continue operating existing specialized law enforcement teams. According to FEMA's Preparedness Grants Manual, FEMA funds three types of specialized law enforcement teams: (1) anti-terrorism teams for dedicated transit patrols on a normal operational basis, (2) explosives detection canine teams, which consist of a dog and a handler, and (3) mobile explosive screening teams, which included certified explosive ordinance technicians and explosive screening technologies.[32] See figure 5 for an example of an explosives detection canine team funded with TSGP grants.

[32]Federal Emergency Management Agency Grant Programs Directorate, *Preparedness Grants Manual,* ver. 2 (Feb. 2021).

Figure 5: Canine Explosives Detection Team Outside a Public Transit Station, Funded by the Transit Security Grant Program

Source: GAO. | GAO-23-105956

- **Pay overtime and surge support.** FEMA awarded $65 million in grants for transit agencies to pay law enforcement personnel for overtime and surge support during special events, such as heavily attended sporting events. This included directed patrols, which are targeted counterterrorism security patrols in public transportation facilities.
- **Establish new specialized teams.** FEMA awarded $40.8 million in grants for transit agencies to create new specialized law enforcement teams (as described above) when they did not already have those capabilities.

Officials from the transit agencies we interviewed told us they rely on law enforcement personnel to provide security for their transit systems.[33] Transit agencies may use TSGP funds to pay law enforcement personnel in internal transit police departments or to contract with external police departments. Of the 23 transit agencies we interviewed, 11 had an

[33]We interviewed officials from all 23 transit agencies that received a TSGP grant in fiscal year 2021.

internal police department, 11 relied on external security, either through agreements with local police departments or contracts with private security companies, and one transit agency used both.

When asked, officials from 12 transit agencies said they prioritize law enforcement projects when applying to the TSGP because they view a law enforcement presence on their transit systems as critical to their security posture. Further, officials from 16 of the 23 transit agencies we interviewed cited law enforcement as among their most commonly identified top security needs. In addition to their role in preventing and responding to terrorist attacks, officials from some transit agencies cited law enforcement personnel as critical to their threat identification process.

FEMA Awarded the Second Largest Share of Grant Funds for Equipment

We found that, between fiscal years 2015 and 2021, FEMA awarded grants for six types of equipment. The types of equipment FEMA funded were:

- **Cameras and surveillance.** FEMA awarded the largest share of equipment funding for cameras and surveillance systems ($8.3 million). Most of these grants were for cameras while some funded video storage and video analysis equipment. See figure 6 for examples of cameras funded with TSGP grants, at two public transit locations.

Figure 6: Security Cameras Funded by the Transit Security Grant Program

Source: GAO. | GAO-23-105956

- **Cybersecurity.** FEMA awarded $39.3 million for transit agencies to improve cybersecurity, such as through multi-factor authentication software, which requires more than one method to authenticate a user.
- **Detection.** FEMA awarded $18 million for transit agencies to purchase and install various types of detection equipment such as intrusion, explosive, chemical, radiation, and gunshot detectors. For example, a transit agency may install an intrusion detector at the entrance to an underground subway tunnel.
- **Access control and perimeter protection.** FEMA awarded $16.7 million for transit agencies to install equipment that keeps unauthorized individuals out of restricted areas, such as through fencing. Access control systems may use a keypad or badge reader to permit access only to authorized individuals. See figure 7 for an example of a fence funded with TSGP grants, outside a bus storage and maintenance facility.

Figure 7: Fence Funded by the Transit Security Grant Program

Source: GAO. | GAO-23-105956

- **Other equipment.** FEMA awarded $11.7 million for transit agencies to purchase and install a variety of other equipment that did not fit within any of the categories above, such as communication equipment and bomb suits.
- **Other security enhancements.** FEMA awarded $42.5 million for security enhancements that were more general in nature. We included projects in this category with insufficient detail to allow us to categorize them as any other project type or that had elements that could have fit under multiple project types. For example, these project descriptions included terms such as “facility hardening” and “security enhancements.”

When asked about their top security improvement needs, officials from 20 of the 23 transit agencies we interviewed said equipment, such as cameras, was among their top security needs.[34] In addition, transit

[34]Transit agency officials also frequently cited law enforcement (16 of 23), training and exercises (9 of 23), cybersecurity (9 of 23), and infrastructure (7 of 23) as security improvement needs.

agency officials most frequently cited cyber threats when asked about the top threats facing their transit systems; officials from 15 of the 23 transit agencies said cyber threats are one of the top threats facing their transit system, highlighting the importance of cybersecurity projects to these transit agencies.[35]

FEMA Awarded Grants for Infrastructure and Other Projects

We found that, between fiscal years 2015 and 2021, FEMA awarded $55.7 million for infrastructure projects, which represented the fewest number of grants for any project type, but the third largest share of funding.[36] For example, a transit agency might use a TSGP grant to construct a physical barrier to prevent vehicles from entering a controlled space.

FEMA officials said that the number of infrastructure projects awarded is low because of their high cost relative to the amount of funding available to the program each fiscal year. Officials from nearly half of the transit agencies we interviewed (11 of 23) told us they are cognizant of the amount of funding available through TSGP and avoid submitting projects that would constitute a large share of the funding. Officials from these transit agencies said they do not apply for infrastructure projects, in part, because TSGP does not have enough money available to fund these types of projects given their high cost.[37] Therefore, the amount of funding available affects transit agencies' decisions about what to submit for funding.

In addition, transit agency officials we spoke with said they generally do not apply for infrastructure projects through TSGP, in part because they have other sources of funding to pay for those types of projects. Officials from 18 of the 23 transit agencies we interviewed mentioned using other

[35]Transit agency officials also frequently cited domestic terrorists or lone wolf actors (9 of 23), active shooters (9 of 23), and explosives (8 of 23) as top security threats.

[36]FEMA awarded 21 grants for infrastructure projects out of 437 total projects, which represented 9 percent of total grant funding, in fiscal years 2015 through 2021.

[37]In fiscal years 2015 through 2021, the annual appropriations for TSGP was approximately $88 million annually.

sources of funding for security projects, such as Federal Transit Administration grants or the transit agency's capital budget.[38]

Between fiscal years 2015 and 2021, FEMA also awarded grants for training and exercises, public awareness campaigns, and planning. FEMA awarded $45.8 million for transit agencies to conduct training and exercises, including active shooter training and security training for transit employees. FEMA also awarded $34.6 million for transit agencies to develop and implement public awareness campaigns, such as "If You See Something, Say Something®" campaigns, to raise public awareness of terrorism indicators. FEMA awarded the smallest share of grant funding ($21.1 million) for transit agencies to develop or enhance security plans, such as continuity of operations plans, security risk management plans, and response plans, and to conduct risk assessments.

[38]The Federal Transit Administration administers the Urbanized Area Formula Grants program, which makes federal resources available to urban areas and to governors for transit capital and operating assistance, and transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more designated by the U.S. Department of Commerce, Bureau of the Census. Grants for this program are apportioned on the basis of statutory formulas. Transit agencies are generally required to spend 1 percent of their Urbanized Area Formula Grants on security projects. See 49 U.S.C. § 5307(c)(1)(J). The Infrastructure Investment and Jobs Act made available $33.5 billion for the Urbanized Area Formula Grants program for fiscal years 2022 through 2026 as part of a total of $89.9 billion in funding for public transit over the same five years. See Pub. L. No. 117-58, § 30017, 135 Stat. 429, 912 (codified at 49 U.S.C. § 5338).

FEMA's Award Process Was Not Fully Consistent with Relevant Federal Grant Requirements

FEMA's Award Process Addressed Some Federal Grant Requirements

FEMA's award process addressed some of the grants management requirements in the Office of Management and Budget's *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), according to our review of a selection of the requirements and FEMA's award documentation.[39] For example, the Uniform Guidance says that awarding agencies must announce grant opportunities in a public notice—called the Notice of Funding Opportunity—that must include specific information for applicants. We found that, in fiscal year 2021, FEMA released a Notice of Funding Opportunity for the TSGP that generally included required information, such as key dates, a program description, and eligibility information.

Further, we found that FEMA designed a merit review process to evaluate grant applications as required by the Uniform Guidance. The Uniform Guidance says a merit review is an objective process of evaluating federal award applications, with the goal of selecting recipients most likely to be successful in delivering results based on the program objectives. In fiscal year 2021, FEMA convened a panel of five experts—called the National Review Panel—to review and competitively score applications along specific criteria. According to FEMA officials, the panel consists of subject matter experts from DHS components, such as FEMA, TSA, and the Cybersecurity and Infrastructure Security Agency, as well as other

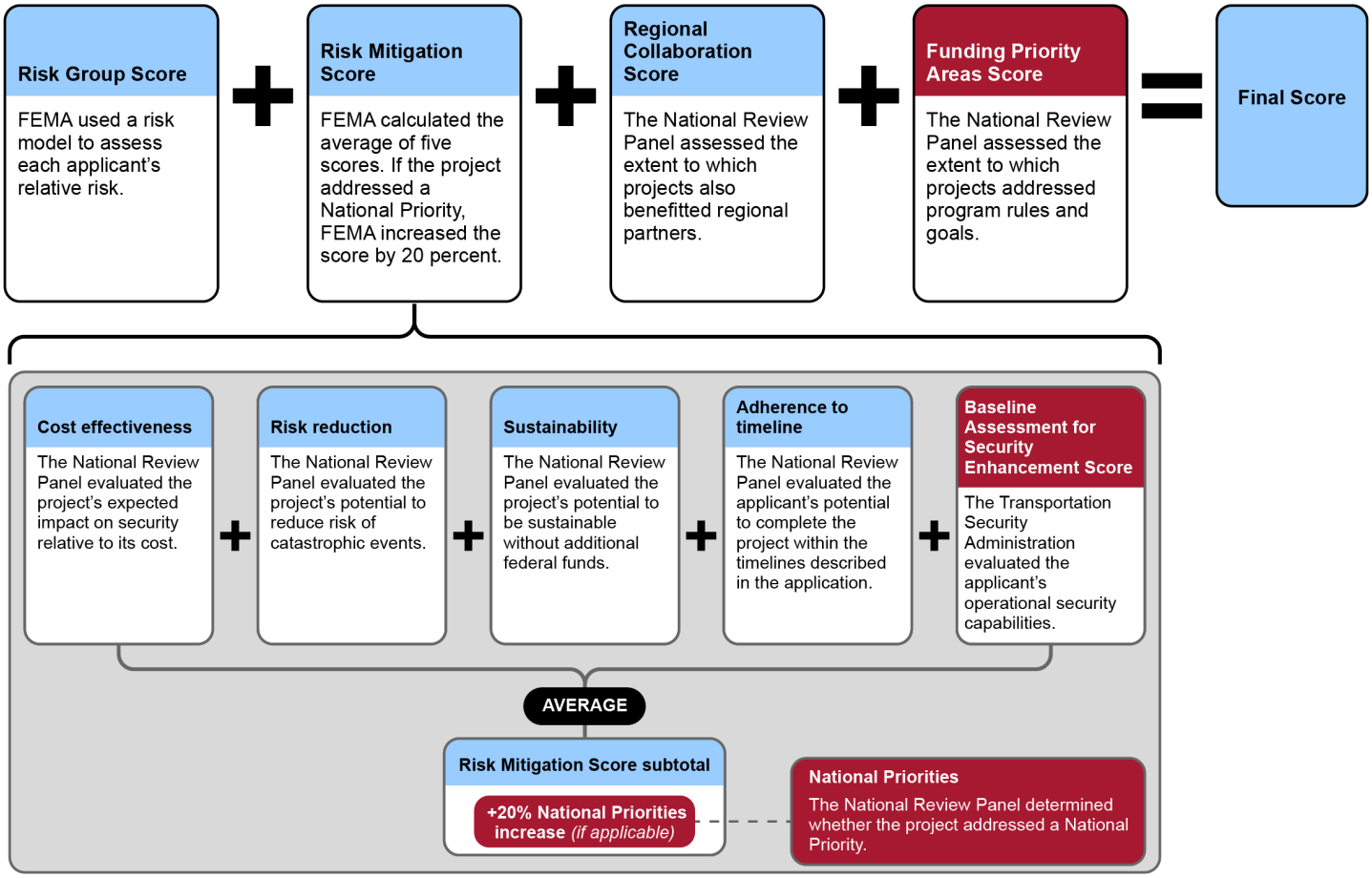
[39]We selected fiscal year 2021 for review because it was the most recently completed award cycle when we initiated our review in March 2022. We compared FEMA's award process in fiscal year 2021 against sections 204 and 205, as well as Appendix I, of the Uniform Guidance. Section 204 and Appendix I list the information that is required to be included in Notices of Funding Opportunity. Section 205 describes requirements for a merit review and selection process. See 2 C.F.R. §§ 200.204, .205; 2 C.F.R. pt. 200, app. I. We selected these sections of the Uniform Guidance because they contain requirements for how FEMA is to design its grant application review process and select recipients, a significant aspect of FEMA's management of the program. The Uniform Guidance is an authoritative set of rules and requirements for federal grant awards codified in the Code of Federal Regulations. DHS adopted the Office of Management and Budget's consolidated grants management guidance and gave it regulatory effect. 79 Fed. Reg. 75,871, 76,084 (Dec. 19, 2014) (codified at 2 C.F.R. § 3002.10).

federal agencies, such as the Department of Transportation. In the application review and evaluation plan FEMA provided to panelists for fiscal year 2021, officials stated their goal was to select the most meritorious projects according to the TSGP's requirements, objectives, and panel deliberations.

FEMA Did Not Accurately Describe All Grant Scoring Criteria

We found that, while FEMA included a description of the scoring criteria in the fiscal year 2021 Notice of Funding Opportunity as required under the Uniform Guidance, FEMA did not accurately describe how it would assess certain criteria. In fiscal year 2021, FEMA and the National Review Panel scored all eligible grant applications along four criteria: Risk Group Score, Risk Mitigation Score, Regional Collaboration Score, and Funding Priority Areas Score. FEMA calculated the Risk Mitigation Score by averaging the scores from additional project-specific criteria. FEMA officials added the scores from each of the four primary criteria to obtain a final score for each project application. We found that FEMA did not accurately describe in the Notice of Funding Opportunity how it would assess the Funding Priority Areas Score or the Risk Mitigation Score. See figure 8 below for the criteria FEMA used to score grant applications in fiscal year 2021, including the components of the Risk Mitigation Score, compared with how FEMA described them in the Notice of Funding Opportunity.

Figure 8: Criteria the Federal Emergency Management Agency (FEMA) Used to Score Fiscal Year 2021 Grant Applications, Compared with Information Described in the Notice of Funding Opportunity



Source: GAO analysis of FEMA data. | GAO-23-105956

Funding Priority Areas Score

How FEMA described it: In the fiscal year 2021 Notice of Funding Opportunity, FEMA described the Funding Priority Areas Score as a 20 percent score increase for projects' final review scores if the project sufficiently addressed one or more of that year's TSGP National

Priorities.[40] According to FEMA officials, the Secretary of Homeland Security establishes National Priorities for the preparedness grant programs, including the TSGP, and FEMA publishes them in the annual Notices of Funding Opportunity.

How FEMA scored it: FEMA applied a 20 percent score increase for projects that sufficiently addressed one or more National Priorities to the Risk Mitigation Score, instead of to the final score. Therefore, the weighted bonus did not have the same effect on the final scores as how it was described in the Notice of Funding Opportunity.[41]

To evaluate the Funding Priority Areas Score criterion, FEMA directed the National Review Panel to assign each application a score on a 0 to 7 point scale using five questions related to how well the application addressed program rules and goals.[42] For example, panelists assigned points based on how clearly the project focused on anti-terrorism activities as opposed to crime prevention, and how well the project fit into the transit agency's overall security program. However, FEMA did not include this scoring information in the Notice of Funding Opportunity.

FEMA's Explanation: Officials said they had mistakenly removed the description of the Funding Priority Areas Score from the Notice of Funding Opportunity when they introduced the National Priorities criterion

[40]In fiscal year 2021, the National Priorities were (1) enhancing cybersecurity, (2) enhancing the protection of soft targets or crowded places, and (3) addressing emerging threats, such as transnational criminal organizations, weapons of mass destruction, and unmanned aerial systems.

[41]For example, the highest possible final score in fiscal year 2021 was 24.7, using the highest possible scores for each of the four components of the final score (6.2 for Risk Mitigation Score, 1.5 for Regional Collaboration Score, 7 for Funding Priority Areas Score, and 10 for Risk Group Score), according to FEMA's calculations in fiscal year 2021. By applying a 20 percent increase to the Risk Mitigation Score, the highest possible final score was 25.94. However, if FEMA had applied the 20 percent increase to the final score instead of the Risk Mitigation Score component, the highest possible final score would be 29.64.

[42]In fiscal year 2021, FEMA directed the National Review Panel to assign the Funding Priority Areas Score to grant applications based on five questions: (1) Is the project clearly focused on security versus safety? (2) Is the project clearly linked to one or more vulnerabilities from a recent threat and vulnerability assessment? (3) Will the project measurably buy-down risk based on linkage to the threat and vulnerability assessment, and the agency's current security posture? (4) Is the project a good match for the maturity of the agency's security program? (5) Given the current threat environment, will the project address a national, regional, or local security issue?

into the scoring process in fiscal year 2020. When FEMA updated the Notice of Funding Opportunity with the new National Priorities criterion—a 20 percent score increase for projects that sufficiently addressed one or more of the National Priorities—officials said they inadvertently replaced the description of the Funding Priority Areas Score with a description of the new criterion. According to FEMA officials, as a result of our review, FEMA revised the fiscal year 2023 Notice of Funding Opportunity by adding a new description of the Funding Priority Areas Score criterion.[43]

Risk Mitigation Score

How FEMA described it: In the fiscal year 2021 Notice of Funding Opportunity, FEMA described the Risk Mitigation Score as the average of four sub-components: (1) cost effectiveness, (2) risk reduction, (3) sustainability, and (4) adherence to timelines.

How FEMA scored it: FEMA obtained an initial Risk Mitigation Score by calculating the average of five sub-components: the four described in the Notice of Funding Opportunity and applicants' most recent Baseline Assessment for Security Enhancement (BASE) scores, which officials said TSA provides directly to FEMA.[44] FEMA did not disclose that they included transit agencies' BASE scores in the calculation in the Notice of Funding Opportunity. Therefore, transit agencies may not have been aware that it was a factor in their final scores. For those projects that the National Review Panel determined sufficiently addressed one or more National Priorities, FEMA added 20 percent to the score to obtain a total Risk Mitigation Score.

FEMA's Explanation: FEMA officials said they did not include information about the BASE scores in the Notice of Funding Opportunity because applicants cannot influence their BASE scores when developing their applications. Therefore, according to officials, applicants do not need to know that FEMA factors these scores into the Risk Mitigation Score.

[43]The fiscal year 2023 Notice of Funding Opportunity says FEMA will award up to 7 points based on the extent to which project applications align with that year's funding priority areas. We did not analyze FEMA's scoring process to confirm whether FEMA scored applications according to the criteria described in the Notice of Funding Opportunity because fiscal year 2023 was outside the scope of our review.

[44]BASE is a voluntary program in which TSA evaluates the security programs of transportation entities, such as public transit agencies, offers technical assistance, and shares best practices. It consists of 17 security action items that address security best practices. According to FEMA officials, TSA provides FEMA with the scores for five of the 17 security action items because TSA determined they are most indicative of a transit agency's operational security capabilities.

Similarly, officials said they applied the 20 percent score increase, based on addressing one or more National Priorities, to the Risk Mitigation Score instead of applicants' final scores because it reflects the section of the application over which applicants have the most influence.

However, under the Uniform Guidance, Notices of Funding Opportunity must include the criteria that the federal awarding agency will use to evaluate applications and should specify the relative weight, if any, the agency will apply to these criteria.[45] The Uniform Guidance further states that the intent of the Notice of Funding Opportunity is to make the application process transparent so applicants can make informed decisions when preparing their applications to maximize fairness of the process. Additionally, FEMA's grants management manual cites the Uniform Guidance requirements and stated that applications must be scored using only the criteria published in the Notice of Funding Opportunity.[46]

In addition to the Uniform Guidance requirements for transparency, transit agency officials we interviewed told us why it is important for FEMA's evaluation process to be clear and transparent. Because the TSGP is a competitive grant program, transit agencies submit applications they believe will result in the highest scores based on their understanding of FEMA's scoring process as described in the Notice of Funding Opportunity. Therefore, transit agencies may choose not to submit applications they believe will not score competitively. For example, officials from one transit agency said that they chose not to submit a grant application for a high priority security improvement need—upgrades to their radio system and related infrastructure—because they understood from the Notice of Funding Opportunity that it would likely receive a low score.[47] By accurately describing scoring criteria and their associated weight in the Notice of Funding Opportunity, FEMA would help ensure transit agencies are making informed decisions about which security improvement projects are likely to score highly.

[45]See 2 C.F.R. § 200.204; 2 C.F.R. pt. 200, app. I.

[46]Federal Emergency Management Agency, *Grants Management*, FEMA Manual 205-0-1 (Washington, D.C.: Jan. 23, 2018).

[47]FEMA officials clarified that FEMA has awarded grants for radio projects in the past.

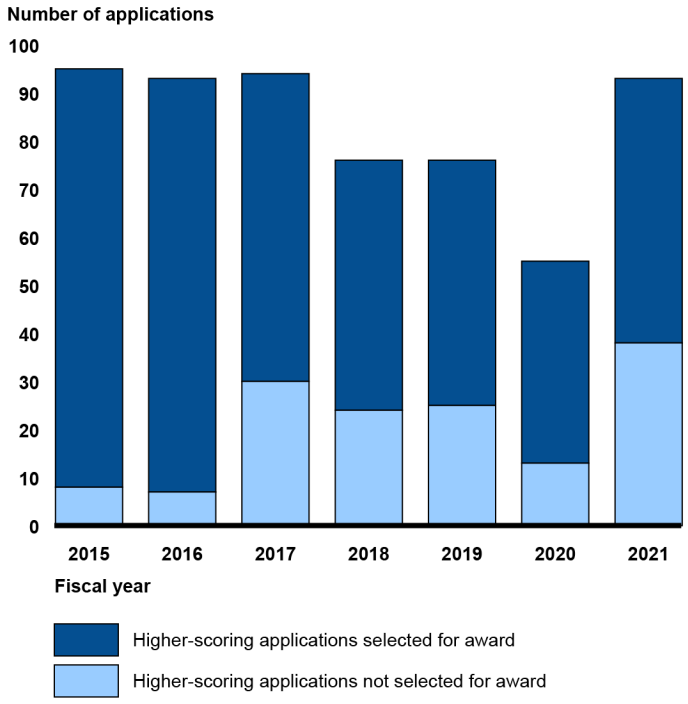
FEMA's Award Decisions Were Not Based Solely on Its Published Selection Process

We found that FEMA did not select project applications to recommend for award based solely on the selection process described in the Notice of Funding Opportunity. In the fiscal year 2021 Notice of Funding Opportunity, FEMA said that it would review and select project applications based on the final scores from four criteria, as described above. However, in fiscal year 2021, FEMA did not award grants to 38 of 93 higher-scoring applications, which were applications with a score greater than that of the lowest-scoring application that received an award.[48]

Further, we found that FEMA did not award grants to some higher-scoring applications in favor of lower-scoring applications each year between fiscal years 2015 and 2021 (see fig. 9). During this time, the number of higher-scoring applications FEMA did not select for award ranged from 7 to 38 each year. The result is that projects' final scores did not solely determine whether the applicant received an award.

[48]We selected fiscal year 2021 for review because it was the most recently completed award cycle when we initiated our review in March 2022.

Figure 9: Number of Higher-Scoring Applications Not Selected for a Transit Security Grant Program Award, Fiscal Years 2015 Through 2021



Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

Note: A higher-scoring application is any with a score greater than that of the lowest-scoring application that received an award.

To select project applications to recommend for award, FEMA officials said that, in coordination with TSA, they take a series of steps to revise the list of project applications ranked by their final scores, which were generated through the merit review process described above. Officials said they use the ranked list of project applications as the starting point to develop option runs, or alternative versions of the list. According to officials, the first option is the list of project applications ranked by their final scores, and the last option is the list the program office recommends to the Secretary. Officials said the steps they took to develop the option runs were generally consistent in recent years.

FEMA officials provided us with documentation that describes the steps they took in fiscal year 2021 to develop option runs and their recommended list of grantees. These steps were to:

Reduce awards for law enforcement activities. Officials first reduced the awards for law enforcement projects to one year of funding.[49] FEMA noted in its documentation that officials took this step because it allowed the program to award grants to additional projects with high scores and to transit agencies that would otherwise not have received an award.

Remove higher-scoring, but lower-quality, applications. FEMA officials said they carefully review the National Review Panel's scores and comments to identify applications that are relatively low-quality, regardless of their final scores. The National Review Panel scores three of the four components of the final scores—the Risk Mitigation Score, the Regional Collaboration Score, and the Funding Priority Areas Score—and panelists provide comments on the quality or other aspects of the applications. The fourth component of the final score is the Risk Group Score, which reflects FEMA's assessment of the relative terrorism risk of each transit agency applicant. A project may have a high final score because of its Risk Group Score but receive low scores on the project-specific criteria from the National Review Panel. According to officials, by not selecting some high-scoring but otherwise low-quality applications, as determined by the National Review Panel, more funding is available for additional transit agencies to receive an award.

FEMA noted in its documentation that this step allowed them to redistribute funds to historic Tier II transit agencies, which are transit agencies FEMA had historically designated as lower-risk of terrorism.[50] FEMA's documentation noted that, under the previous option run, no historic Tier II transit agencies had been selected for award. In this option run, eight historic Tier II transit agencies would receive an award.

Select an additional grantee. FEMA developed its last option run by electing to include one transit agency's project application for award that did not score highly enough to be included in the previous option runs. FEMA's documentation noted that FEMA officials selected this transit

[49]In fiscal year 2021, transit agencies could apply for up to three years of funding for law enforcement activities in a single grant application.

[50]Under the methodology FEMA used to award TSGP grants prior to fiscal year 2011, DHS had grouped regions, and the transit agencies within those regions, into two tiers based on their terrorism risk. DHS grouped regions it determined were at the highest risk of a terrorist attack into Tier I and lower-risk regions into Tier II. However, according to officials, FEMA stopped using this methodology for awarding grants in fiscal year 2010. For more information about this methodology, see GAO-09-491.

agency because it was in a historic Tier I region. This option run was the program office's recommended option to the Secretary.

FEMA officials did not provide a consistent explanation for why they developed the option runs. Initially, officials told us they developed the option runs because in 2016 the Secretary requested they provide additional options that dispersed grants among a larger number of transit agencies and across a larger geographic area than what resulted from the final scores alone. The documentation FEMA provided supports this explanation, as described above. However, officials later retracted this explanation and said they produce the option runs based on their understanding that the Secretary expects to see multiple options, but not for the reasons previously cited.

While FEMA designed a merit review process to competitively evaluate applications, it did not use the results of that process as the sole basis for selecting project applications to recommend for award. Further, FEMA did not disclose these additional considerations for award decisions in the Notice of Funding Opportunity. The Uniform Guidance states that, for discretionary federal grant programs, agencies must award grants using a merit review process described in the Notice of Funding Opportunity.[51] According to the Uniform Guidance, a merit review is an objective process of evaluating applications in accordance with the written standards set forth by the awarding agency, including any preferences, program policies, or other factors the selecting official may consider.

As described above, FEMA designed its review and selection process with the intention of objectively identifying the most meritorious projects to select for funding. Projects with the highest scores should therefore reflect those of the highest quality submitted by the agencies with the highest risk from terrorism, as determined by an independent review panel and FEMA's own risk assessment process. By not selecting applications to recommend for award in accordance with its publicly disclosed merit review process, FEMA risked affecting the objectivity, fairness, and transparency of the award process and could face questions about the integrity of the award decisions.

[51]See 2 C.F.R. § 200.205.

FEMA Assessed Risk for Each Applicant but Did Not Consider Cyber Threats or Document Underlying Assumptions

FEMA Assessed the Relative Risk of Each Applicant, but Did Not Account for Cyber Threats

In fiscal year 2021, FEMA used a risk assessment methodology (risk model) to assess the relative terrorism risk for transit agencies that applied to the TSGP.[52] FEMA assessed transit agencies' risk as a function of terrorist threats, transit agencies' vulnerabilities to attacks, and the estimated consequences of an attack, in accordance with DHS's definition of risk.[53] FEMA used the results of its assessment as the Risk Group Score for TSGP, one of four components of applicants' final scores. In fiscal year 2021, the Risk Group Score ranged from one to 10 and indicated a transit agency's terrorism risk relative to other applicants.

For fiscal year 2021, FEMA's TSGP risk model assessed the terrorism risk to a transit agency's rail systems and bus systems separately to account for the different characteristics of each transit mode. FEMA weighted rail systems at 95 percent and bus systems at 5 percent to reflect FEMA's and TSA's assessment that there is a greater terrorism risk to rail infrastructure. FEMA officials said that rail systems are generally more vulnerable to, and have higher consequences from, a terrorist attack than bus systems, so they assign more risk to rail systems. FEMA then added the weighted scores for rail and bus systems together to calculate a transit agency's overall Risk Group Score.[54] If a transit

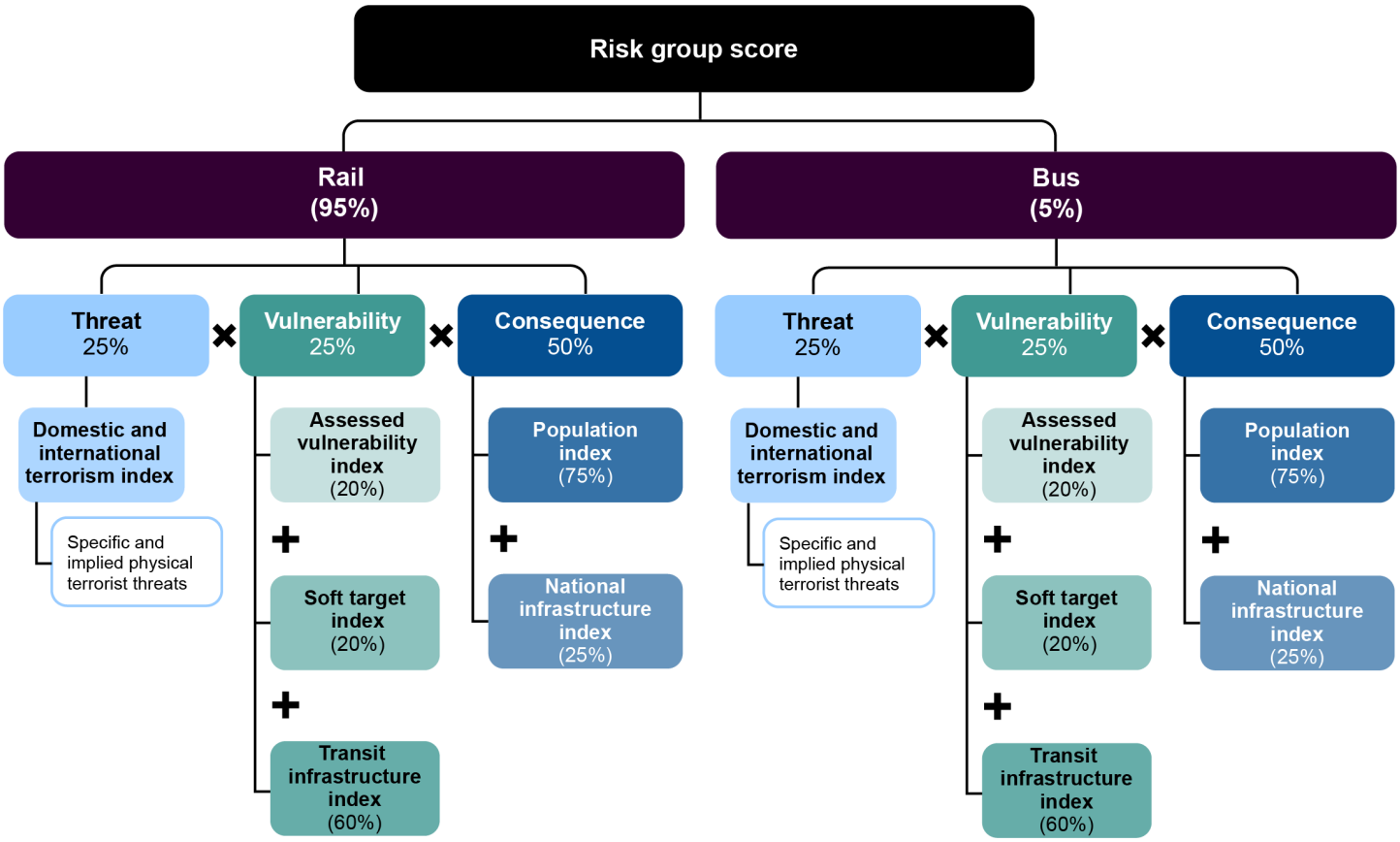
[52]We selected fiscal year 2021 for review because it was the most recently completed award cycle when we initiated our review in March 2022.

[53]In January 2021, FEMA released the Public Transit Risk Assessment Methodology, a tool for transit agencies to assess security risk for their systems. It produces risk values for each asset within a transit system, based on qualitative estimates of risk as assigned by a panel of experts within each transit agency. FEMA officials said they plan to require applicants to submit the assessment as part of their TSGP applications in fiscal year 2024.

[54]Eligible transit agencies may employ other modes of transportation, such as ferries. FEMA officials told us that transit systems with ferries are only eligible for TSGP if they are otherwise an eligible mass transit system. Officials said they include ferry passenger data in their calculations if available. Officials noted that ferry systems are also eligible for FEMA's Port Security Grant Program, but a ferry system cannot receive a grant from both programs in the same fiscal year.

agency only employed one mode of transit, such as a bus system, officials said they would calculate risk for the bus system, use a value of zero for the rail system, apply the weights as previously described, and add the resulting scores. See figure 10 for an overview of FEMA's risk model for the TSGP.

Figure 10: Federal Emergency Management Agency's (FEMA) Risk Model for the Transit Security Grant Program, as of Fiscal Year 2021



Source: GAO analysis of FEMA's risk assessment model. | GAO-23-105956

Threat Component

For fiscal year 2021, FEMA used information on physical terrorist threats but not cyber threats in the TSGP risk model.[55] FEMA used DHS Office of Intelligence and Analysis data on physical terrorist threats to calculate the

[55]DHS generally estimates threat as the likelihood of an attack, which accounts for both the intent and capability of the adversary.

threat component of the Risk Group Score.[56] The data include specific and implied physical terrorist threats to urban areas.[57] According to FEMA officials, urban area-level threat information is an appropriate proxy for threats to transit agencies because transit systems are generally spread across large geographic areas. FEMA weighted threat information at 25 percent of the Risk Group Score for both rail and bus systems.

FEMA considered cyber threats for other risk-based grant programs it manages but not for the TSGP. In fiscal year 2021, FEMA incorporated data on cyber threats into its risk model for the State Homeland Security Program and Urban Area Security Initiative grant programs. The Office of Intelligence and Analysis maintains the cyber threats data, which officials calculate at the urban area level. The data incorporate multiple sources of information on attempted, suspected, and confirmed cyber intrusions, data exfiltration, and disruptive cyberattacks targeting critical infrastructure.[58] Officials with the Office of Intelligence and Analysis said they used cyber reporting data from the intelligence community and the Cybersecurity and Infrastructure Security Agency, and urban area data from the Bureau of Labor Statistics, in its cyber threats analysis.[59]

DHS and officials from the transit agencies we interviewed recognize cyber threats as a major security concern for transit agencies. DHS's National Infrastructure Protection Plan states that DHS components, such as FEMA, must address both physical and cyber threats when assessing

[56]This data set is called the Domestic and International Terrorism Index. The Office of Intelligence and Analysis uses data from a variety of sources, including the National Counterterrorism Center and the Department of Justice, to inform its assessment of physical terrorist threats. Office of Intelligence and Analysis officials said they also source data from classified intelligence community reporting, open source information, information from state and local stakeholders, and DHS intelligence reporting.

[57]Urban areas, or metropolitan statistical areas, are core geographic areas containing a substantial population as defined by the Office of Management and Budget. The Office of Intelligence and Analysis assigns each urban area one of four levels to represent its relative terrorism threat level.

[58]According to FEMA officials, the Office of Intelligence and Analysis measures cyber threats for an urban area, or metropolitan statistical area, by calculating cyber threat levels for each critical infrastructure sector in that area, including the transportation sector. The Office of Intelligence and Analysis then weighs the numerical scores for each sector by the concentration of sector-specific workforce in the area. The Office of Intelligence and Analysis adds the scores for all sectors in each area to produce an overall cyber threat score for the area.

[59]The Bureau of Labor Statistics is an agency of the United States Department of Labor.

threats to critical infrastructure.[60] Further, DHS introduced cybersecurity as a National Priority for TSGP in fiscal year 2019, indicating that cyberattacks are a relevant threat to transit agencies. Officials from 15 of the 23 transit agencies we interviewed cited cyberattacks when asked about top threats facing their transit systems.

FEMA officials said that, in fiscal year 2021, they considered incorporating the cyber threats data used in the State Homeland Security Program and Urban Area Security Initiative risk model into the TSGP risk model. Officials said they consulted with TSA and the Office of Intelligence and Analysis and determined the data were too broad for the TSGP risk model. Specifically, FEMA officials said they did not add the cyber threats data to the TSGP risk model because the data reflect cyber threats to urban areas as a whole, rather than to individual transit agencies. However, as discussed above, the threat data that FEMA currently uses in the TSGP risk model assesses physical threats to the urban areas in which the transit agencies operate, rather than to transit agencies specifically. This demonstrates that, in the case of physical threats, FEMA already considers threats to urban areas to be a valid representation of threats to the transit agencies that operate within those areas. FEMA officials said they are working to identify an alternative cyber threats data source that could be appropriate for the TSGP risk model. By incorporating cyber threats into the TSGP risk model, FEMA's model would better reflect the nature of current threats facing transit agencies, including those to agencies' cybersecurity.

Vulnerability Component

For fiscal year 2021, FEMA used three data sources, described below, to calculate the vulnerability component of the Risk Group Score.[61] FEMA weighted vulnerability information at 25 percent of the Risk Group Score for both rail and bus systems.

- **Assessed Vulnerability Index.** FEMA evaluated transit agencies' security vulnerabilities using the Assessed Vulnerability Index. To calculate this index, FEMA used components of TSA's Baseline Assessment for Security Enhancement (BASE) scores. The BASE program is intended to assess the operational security capabilities of

[60]Department of Homeland Security, *Supplemental Tool: Executing a Critical Infrastructure Risk Management Approach*.

[61]A vulnerability is a physical or operational characteristic that makes an entity open to exploitation or susceptible to a given hazard.

a transit system.[62] TSA provides FEMA with transit agencies' scores for five of the 17 assessment items covered by the BASE because TSA determined these five items are most indicative of a transit agency's operational security capabilities.[63] FEMA averaged the inverse of these scores to calculate the Assessed Vulnerability Index. FEMA weighted this index at 20 percent of the vulnerability component for both rail and bus systems.

- **Soft Target Index.** The Soft Target Index is intended to capture risk from increased usage of public transit during special events, such as sporting events. FEMA calculates the Soft Target Index using data on special events provided by the DHS Office of Operations Coordination.[64] FEMA weighted this index at 20 percent of the vulnerability component for both rail and bus systems.
- **Transit Infrastructure Index.** For both rail and bus systems, FEMA calculated the Transit Infrastructure Index by assessing whether a transit agency serves key transportation infrastructure. TSA designates transportation infrastructure, like a station or a bridge, nationally critical by including it on its Top Transit Asset List. For rail systems, FEMA also factored in the total number of underground track miles in the rail system. According to FEMA, underground rail tracks reflect an increased vulnerability because they are harder to monitor, protect, and repair. FEMA weighted this index at 60 percent of the vulnerability component for both rail and bus systems.

Consequence Component

For fiscal year 2021, FEMA used two data sources to calculate the consequence component of the Risk Group Score. FEMA weighted consequence information at 50 percent of the Risk Group Score for both rail and bus systems.

[62]BASE is a voluntary program. For transit agency applicants that do not have a BASE score, FEMA officials said they would use the inverse of the average score of all transit agencies when calculating their Risk Group Scores. For example, if the average score for all transit agencies is 68 percent, then transit agencies without BASE scores would have a score of 32 percent in the TSGP risk model (100 minus 68).

[63]The five selected components of the BASE score that TSA provides to FEMA are: (1) Security and Response Plans, (2) Security and Emergency Training, (3) Public Awareness, (4) Drills and Exercises, and (5) Established Risk Assessment.

[64]Organizers of special events, such as the Super Bowl, may voluntarily submit information to DHS's Office of Operations Coordination for a risk assessment. Based on the result of the risk assessment, the federal government may provide security assistance to support the event.

- **Population Index.** FEMA used the average number of weekday passenger trips to calculate the Population Index for both rail and bus transit systems.[65] FEMA weighted the Population Index at 75 percent of the consequence component for both rail and bus systems.
- **National Infrastructure Index.** TSA analyzed the current vulnerability levels of key transportation infrastructure on the Top Transit Asset List, which FEMA used to calculate the National Infrastructure Index. FEMA weighted the National Infrastructure Index at 25 percent of the consequence component for both rail and bus systems.

FEMA Did Not Consistently Document Underlying Assumptions and Justifications of Its Risk Model

We found that FEMA's documentation for the TSGP risk model did not consistently include information that would enable users or reviewers of the model to understand the underlying assumptions and justifications that form the basis for the model.[66] Such assumptions and justifications could include the size of the weights assigned to each of the three components of the model or the reasoning behind changes to the model from one year to the next. Each year, FEMA is required to submit a report to Congress with information about how it assesses risk for the preparedness grant programs it manages.[67] The fiscal year 2021 report documented information about FEMA's TSGP risk model, including the model's components, data sources, and year-to-year changes.[68] FEMA also documented information about the TSGP risk model in standard operating procedures. However, these documents did not consistently

[65]Average weekday passenger trips represent the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

[66]GAO and the National Research Council have previously reported on the importance of DHS documenting the assumptions underlying its risk models. In 2018, GAO recommended that FEMA fully document the assumptions and justifications of the risk-based assessments for the State Homeland Security Program and Urban Area Security Initiative. FEMA has taken action to fully address our recommendation. GAO-18-354. In 2010, the National Research Council recommended that DHS should document its risk analyses to improve transparency. National Research Council, *Review of the Department of Homeland Security's Approach to Risk Analysis* (Washington, D.C.: The National Academies Press, 2010).

[67]The 9/11 Commission Act required FEMA to annually report to the appropriate congressional committees on its risk assessment methodologies for the risk-based preparedness grant programs it administers. 6 U.S.C. § 612(c)(2). These grant programs are the State Homeland Security Program, the Urban Area Security Initiative, the Port Security Grant Program, the Transit Security Grant Program, and Operation Stonegarden.

[68]Federal Emergency Management Agency, *Risk Methodology: Calculating Risk for the FY 2021 DHS Preparedness Grant Programs* (Feb. 18, 2022).

include information about FEMA officials' reasoning behind key decisions underlying the risk model.

Key weighting assumptions. FEMA officials could not provide documentation that explained the assumptions behind key decisions FEMA had previously made about the TSGP risk model. For example, in fiscal year 2021, the TSGP risk model weighted risk to rail systems at 95 percent of the Risk Group Score and risk to bus systems at 5 percent (see fig. 10 above). Officials told us they could not explain why the TSGP risk model used these specific weights, only that they generally consider risk to rail systems to be greater. Officials told us the weights had been assigned at the inception of the program and officials at that time had not documented their assumptions for selecting those specific weights. Similarly, FEMA's documentation did not contain information that would allow a reviewer to understand why officials selected the specific weights for the vulnerability and consequence components' data sources, as described above.[69]

Justifications for year-to-year model adjustments. FEMA documented recent changes to the TSGP risk model in its annual report to Congress but did not always document the reasoning for the changes. For example, the fiscal year 2021 report to Congress said that, in fiscal year 2020, FEMA moved the National Infrastructure Index, described above, from the vulnerability component of the risk model to the consequence component. FEMA officials told us they discussed their recommended changes to the risk model with TSA officials before making the changes in fiscal year 2020. FEMA documented the change in its report to Congress and standard operating procedures, but did not include its justification for the decision. As a result, reviewers and future users of the methodology would not understand the reasoning behind the change, and would therefore be unable to verify that the change was appropriate or assess whether the justification continued to hold true over time.

FEMA officials told us that the composition of the model and any changes to it are policy decisions stemming from conversations with subject matter experts and internal analyses. For example, FEMA officials told us that they work with TSA officials annually to review and improve the risk

[69]FEMA officials told us that some changes to weights in the TSGP risk model are the result of shifting ratios among model components and are not selected for a particular reason. For example, if officials decide to decrease the weight of one component, they must adjust the weights of other components to account for the change, according to officials.

model. According to FEMA officials, they do not document these decisions because they come from informal conversations. However, they acknowledged that the reasoning underlying these decisions, such as why they had selected specific weights for each component, could be unclear to others reviewing the model at a later date. Officials told us they are considering developing internal rules to guide how they make changes to the weights in the model so those decisions would be more transparent.

The DHS National Infrastructure Protection Plan states that when DHS components develop a risk assessment, any assumptions, weighting factors, and subjective judgments need to be transparent to the user of the risk assessment.[70] Additionally, in April 2018, we identified documentation and transparency as key methodological elements to the baseline structure of an economic analysis, such as a risk assessment.[71] Specifically, analyses should describe and justify the analytical choices, assumptions, and data used in the assessment.

FEMA could improve the transparency and clarity of its risk model for reviewers and future users of the methodology by documenting underlying assumptions and the justifications. By improving its documentation, FEMA would better preserve agency officials' collective understanding of the model and its underlying assumptions so that in the future, program officials can understand and assess the model and determine whether the underlying assumptions still apply in a changing risk environment.

Conclusions

DHS's Transit Security Grant Program is intended to help public transit agencies protect the traveling public and critical infrastructure from acts of terrorism. As the component responsible for managing the TSGP, FEMA is to competitively assess applications using a transparent and objective merit review process that is publicly disclosed and that incorporates transit agencies' risks of terrorism. FEMA designed a competitive merit review process that incorporates a risk assessment, and shared that process in its public Notice of Funding Opportunity. However, FEMA did not accurately describe how it would score grant applications. Improving transparency about its scoring process would help ensure that transit

[70]Department of Homeland Security, *Supplemental Tool: Executing a Critical Infrastructure Risk Management Approach*.

[71]GAO, *Assessment Methodology for Economic Analysis*, GAO-18-151SP (Washington, D.C.: April 10, 2018).

agencies are making informed decisions about the types of security enhancement projects they should pursue. Further, FEMA did not use the results of its publicly disclosed review process as the sole basis for selecting project applications to recommend for award. By selecting project applications using undisclosed criteria that were not part of its merit review process, FEMA risked affecting the objectivity, fairness, and transparency of the award process and could face questions about the integrity of the award decisions.

FEMA assessed the terrorism risk of each transit agency applicant but did not consider cyber threats in that assessment. DHS and transit agencies acknowledge that cyber threats are a major security concern for public transit. FEMA would improve its risk assessment by incorporating cyber threats into the methodology. FEMA would further improve its risk assessment by consistently documenting underlying assumptions and justifications for key decisions. Improving documentation would allow FEMA to better preserve institutional knowledge and assess whether those underlying assumptions and justifications remain true in the future.

Recommendations for Executive Action

We are making the following four recommendations to DHS:

The Secretary of Homeland Security should ensure that the Administrator of FEMA accurately describes all the criteria FEMA uses to score applications in the Transit Security Grant Program's Notice of Funding Opportunity, to include how associated weights are applied. (Recommendation 1)

The Secretary of Homeland Security should ensure that the Administrator of FEMA selects Transit Security Grant Program project applications to recommend for award in accordance with FEMA's publicly disclosed merit review process, to include scoring criteria published in the Notice of Funding Opportunity. (Recommendation 2)

The Secretary of Homeland Security should ensure that the Administrator of FEMA incorporates cyber threats into the Transit Security Grant Program risk model. (Recommendation 3)

The Secretary of Homeland Security should ensure that the Administrator of FEMA documents the underlying assumptions and justifications for the Transit Security Grant Program risk model, to include the rationale used to assign weights to components. (Recommendation 4)

Agency Comments and Our Evaluation

We provided a draft of this report to DHS for review and comment. In its comments, reproduced in appendix IV, DHS concurred with our recommendations. DHS also provided technical comments, which we incorporated as appropriate.

Regarding our recommendation that FEMA accurately describe the criteria it uses to score grant applications in the program's Notice of Funding Opportunity, FEMA agreed to clarify the language about its evaluation process. FEMA also noted that there may be circumstances in which it could not disclose certain information because of its sensitivity. If fully implemented, FEMA's language clarifications should address the recommendation.

Regarding our recommendation that FEMA select grant applications to recommend for award in accordance with its publicly disclosed process, FEMA agreed to expand the narrative in the annual Notice of Funding Opportunity to clarify its evaluation process. FEMA also noted that the Secretary of Homeland Security retains the authority to exercise discretion over the grant process based on risk, as appropriate. While the program's authorizing statute does provide that the Secretary shall select grant recipients based solely on risk, FEMA would fully implement this recommendation by selecting grant applications to recommend to the Secretary for review and approval based on its publicly disclosed merit review process.

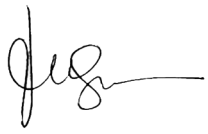
Regarding our recommendation that FEMA incorporate cyber threats into the program's risk model, FEMA stated that, in coordination with TSA, the Cybersecurity and Infrastructure Security Agency, and the Office of Intelligence and Analysis, it would continue to research possible enhancements to the risk model. FEMA stated it plans to add a cyber data element to the risk model if it can identify an appropriate data source. FEMA provided specific steps and time frames as part of this plan. If fully implemented, these actions should address the recommendation.

Regarding our recommendation that FEMA document the underlying assumptions and justifications for the risk model, FEMA stated it would continue to document and provide evidence for changes to the model in its annual report to Congress and other program documentation. FEMA stated that the risk model's weights are determined by policy and that FEMA officials routinely review the model's weights in coordination with TSA, and DHS leadership approves any changes. Specifically, FEMA noted that the policy decision behind the weights assigned to bus versus

rail inputs was documented in a 2008 report to Congress, and FEMA and TSA have not encountered new information that would justify a change. However, the documentation FEMA provided to us did not consistently include information that would allow reviewers to understand the rationale behind those decisions, as described above. In addition, that documentation did not include information about FEMA's routine re-assessment of those weights or describe its rationale for maintaining those weights since 2008. To fully implement this recommendation, FEMA's documentation should consistently include information about the underlying assumptions and justifications for key decisions in the model, to enable future users and reviewers to assess whether they continue to hold true.

We are sending copies of this report to the appropriate congressional committees and the Secretary of Homeland Security. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact Tina Won Sherman at (202) 512-8461 or shermant@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix V.

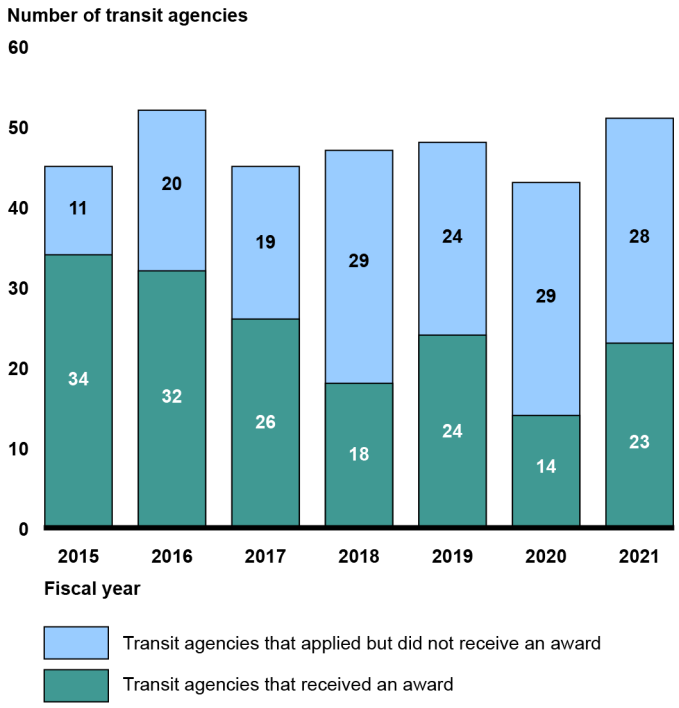


Tina Won Sherman
Director, Homeland Security and Justice

Appendix I: Additional Information about Transit Security Grant Program Recipients

The Transit Security Grant Program (TSGP) is a discretionary grant program that provides grants to public transit agencies to protect critical transportation infrastructure and the traveling public from terrorism and to increase transportation infrastructure resilience. From fiscal years 2015 through 2021, the number of transit agencies eligible to apply to the TSGP annually ranged from 117 to 120.[1] During that time, the Federal Emergency Management Agency (FEMA) awarded grants to a total of 48 transit agencies; of those, 34 transit agencies received multiple grants. See figure 11 for the number of transit agencies that applied and received grants each fiscal year.

Figure 11: Transit Security Grant Program Applicants and Recipients, Fiscal Years 2015 through 2021



Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

[1]We selected this timeframe for review because the period of performance—the time in which a grantee must complete their project—was consistent during that time (36 months). The appropriations for the program were also consistent during that time, at approximately $88 million annually. Additionally, fiscal year 2021 was the most recently completed award cycle when we initiated our review in March 2022.

The transit agencies that received the most TSGP funding during fiscal years 2015 through 2021 were the New York Metropolitan Transportation Authority, New Jersey Transit, the Chicago Transit Authority, the Los Angeles County Metropolitan Transportation Authority, and the Washington Metropolitan Area Transit Authority. For more information about each transit agency that received a grant from fiscal years 2015 through 2021, see table 1.

Table 1: Transit Agencies that Received Transit Security Grant Program Awards, Fiscal Years 2015 through 2021

Transit agency	Urban area	Total amount received (in dollars)	Total number of projects awarded
Bi-State Development Agency	St. Louis	**236,000**	**1**
Broward County	Ft. Lauderdale	**596,949**	**1**
Capital Metropolitan Transportation Authority	Austin	**630,476**	**2**
Central Puget Sound Regional Transit Authority	Seattle	**2,896,472**	**8**
Charlotte Area Transit System	Charlotte	**162,750**	**1**
Chicago Transit Authority	Chicago	**87,120,091**	**24**
City and County of Honolulu Department of Transportation Services	Honolulu	**30,000**	**1**
City of Kansas City, MO	Kansas City	**6,000**	**1**
Connecticut Department of Transportation	New York City	**4,382,679**	**5**
Dallas Area Rapid Transit	Dallas/Fort Worth	**1,871,877**	**9**
Delaware River Port Authority	Philadelphia	**8,873,799**	**9**
Fort Worth Transportation Authority (Trinity Metro)	Dallas/Fort Worth	**683,800**	**2**
Greater Cleveland Regional Transit Authority	Cleveland	**1,109,926**	**3**
Kansas City Area Transportation Authority	Kansas City	**174,000**	**2**
King County Department of Transportation	Seattle	**5,613,304**	**18**
Los Angeles County Metropolitan Transportation Authority	Los Angeles	**35,602,671**	**9**
Maryland Transit Administration	National Capital Region	**9,328,662**	**18**
Massachusetts Bay Transportation Authority	Boston	**34,179,872**	**30**
Metro Transit	Minneapolis/St. Paul	**2,462,354**	**11**
Metropolitan Atlanta Rapid Transit Authority	Atlanta	**5,996,747**	**8**
Metropolitan Transit Authority of Harris County	Houston	**492,636**	**3**
Metropolitan Transportation Authority	New York City	**166,873,778**	**60**
Miami Dade County	Miami-Dade	**187,890**	**1**
Milwaukee County Transit System	Milwaukee	**754,709**	**4**
New Jersey Transit	New York City & Philadelphia	**99,741,717**	**53**
New Orleans Regional Transit Authority	New Orleans	**202,233**	**1**
Niagara Frontier Transportation Authority	Buffalo	**412,514**	**2**
North County Transit District	San Diego	**117,888**	**1**
Northeast Illinois Commuter Railroad Corporation	Chicago	**7,429,549**	**5**
Orange County Transportation Authority	Los Angeles	**730,500**	**6**
Pace Suburban Bus	Chicago	**265,360**	**1**
Pierce County Public Transportation Benefit Area Corp	Seattle	**414,965**	**1**
Pinellas Suncoast Transportation Authority	Tampa	**435,000**	**1**

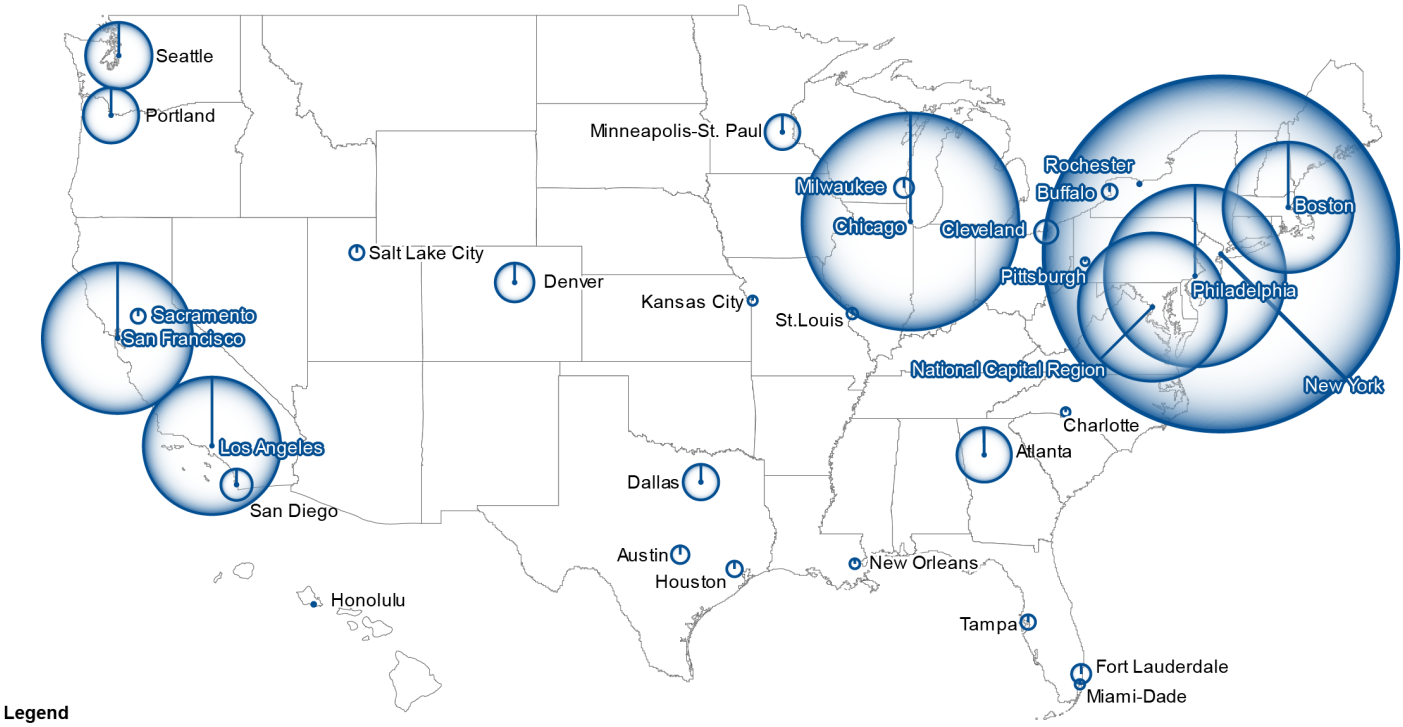
Transit agency	Urban area	Total amount received (in dollars)	Total number of projects awarded
Port Authority Of Allegheny County	Philadelphia & Pittsburg	**1,002,326**	**4**
Port Authority of New York and New Jersey	New York City	**19,220,955**	**19**
Regional Transportation District	Denver	**3,040,267**	**3**
Rochester Genesee Regional Transportation Authority	Buffalo & Rochester	**79,000**	**2**
Sacramento Regional Transit District	Sacramento	**413,590**	**7**
San Diego Metropolitan Transit System	San Diego	**1,875,681**	**8**
San Francisco Bay Area Rapid Transit District	San Francisco	**30,405,554**	**13**
San Francisco Municipal Transportation Agency	San Francisco	**14,154,800**	**8**
Santa Clara Valley Transportation	San Francisco	**1,000,000**	**1**
South Florida Regional Transportation Authority	Fort Lauderdale	**151,238**	**1**
Southeastern Pennsylvania Transportation Authority	Philadelphia	**19,439,574**	**27**
Southern California Regional Rail Authority	Los Angeles	**1,681,719**	**1**
Tri-County Metropolitan Transportation District	Portland	**6,209,957**	**13**
Utah Transit Authority	Salt Lake City	**417,150**	**5**
Washington Metropolitan Area Transit Authority	National Capital Region	**34,891,021**	**23**
Total		**614,000,000**	**437**

Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

From fiscal years 2015 through 2021, FEMA awarded TSGP grants to transit agencies in 31 of 59 eligible urban areas (see fig. 12 below).[2] Multiple transit agencies may operate within a single urban area. For example, FEMA awarded grants to four transit agencies in the New York City urban area. The New York City urban area received more than one third of the total program funding ($253.2 million) from fiscal years 2015 through 2021. The urban areas that received the next highest total award amounts were Chicago ($94.8 million), Philadelphia ($66.2 million), San Francisco ($45.6 million), and the National Capital Region ($44.2 million).

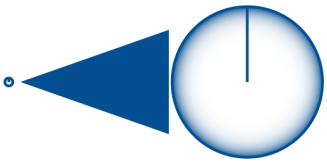
[2]These are the same urban areas designated under the Urban Area Security Initiative. The Urban Area Security Initiative is a risk-informed formula grant program that provides funding to high-threat, high-density urban areas to enhance their overall security and preparedness levels and to prevent, respond to, and recover from acts of terrorism.

Figure 12: Transit Security Grant Program Total Award Amounts by Urban Area, Fiscal Years 2015 through 2021



Legend

Circles depict relative amount of total grant funding by urban area



$25,000 $253,169,810

Source: GAO analysis of Federal Emergency Management Agency data. | GAO-23-105956

Appendix II: Additional Perspectives on the Transit Security Grant Program

The Transit Security Grant Program (TSGP) is a discretionary grant program that provides grants to public transit agencies to protect critical transportation infrastructure and the traveling public from terrorism and to increase transportation infrastructure resilience. We interviewed officials from all 23 transit agencies that received a grant from the TSGP in fiscal year 2021. We asked officials a variety of questions about their experiences with the program, including the factors they consider when developing their grant applications, such as the period of performance, and the costs of managing the grant award.

Period of Performance

The National Defense Authorization Act for Fiscal Year 2022 increased the period of performance—the time in which a grantee must complete their project—for infrastructure projects from 36 months to 48 months.[1] Officials from the transit agencies we interviewed generally expressed appreciation for the period of performance extension given that infrastructure projects take time to complete and delays are common. For example, transit agency officials told us they must undergo their own internal approval, planning, and procurement processes after receiving a grant award, complete environmental reviews, and award contracts to third parties, such as vendors and contractors. Officials from 20 of the 23 transit agencies we interviewed said that 48 months is adequate for infrastructure projects under the TSGP, and officials from 21 transit agencies said 36 months is adequate for all other project types.

However, the period of performance was not a primary factor in transit agencies' decisions about whether to apply for infrastructure projects in fiscal year 2022. Officials from all 20 of the transit agencies we interviewed that applied in fiscal year 2022 said the extended period of performance did not affect their decisions about whether to apply for infrastructure projects in fiscal year 2022.[2] Transit agency officials cited other factors as having a greater impact on their decisions. For example, officials from nine transit agencies said the period of performance was not a major factor because they submit projects based on their security priorities, which they largely derive from threat assessments, regardless of the amount of time they have to complete projects. With time, the extended period of performance may have more impact; officials from 16

[1]The Act also codified the period of performance for all other project types at 36 months. FEMA implemented this change beginning in fiscal year 2022. Pub. L. No. 117-81, § 6421, 135 Stat. 1541, 2418 (2021).

[2]Officials from three of the 23 transit agencies we interviewed said they did not apply for the TSGP in fiscal year 2022.

transit agencies said that the extension in the period of performance may affect their decisions in the future about whether to apply for infrastructure projects.

Grant Management and Administration

The Federal Emergency Management Agency (FEMA) allows TSGP grantees to use up to 5 percent of their awards for grant management and administration expenses. Expenses must directly relate to the management and administration of current fiscal year TSGP grants, meaning grantees cannot use the funds to manage previous or future TSGP awards. This includes preparing and submitting required reports and documenting expenditures for accounting purposes. Grantees may also use these funds for grant management contractors and domestic travel expenses related to grant administration. For example, the transit agency officials we interviewed who said they apply for management and administration funds in their grant applications reported they used the funds to pay for grant managers, consultant or contractor fees, employee training, and related travel expenses.

TSGP applicants are required to provide a detailed budget as part of their application package. In addition to project-related costs, the budget must include a justification of any requested management and administration funds. According to FEMA officials, FEMA's regional offices perform financial monitoring of grantees, including oversight of their use of management and administration funds.

We found that nine of 23 fiscal year 2021 grantees (39 percent) requested management and administration funds in their TSGP applications. These agencies requested to use between two and five percent of their awards for grant management and administration. These requests equated to between $7,811 and $254,139, depending on the total requested amount for the project. FEMA officials said they would always approve management and administration requests if grantees include them in their applications and if the requests are for allowable expenses.

Transit agency officials we interviewed reported that the primary reason they may not apply for management and administration funds is that they already have funding for grant management incorporated into their budgets. For example, agencies may already have staff dedicated to managing a variety of grants. Officials from three transit agencies said they do not apply because they do not want to take funds away from their projects, and officials from one transit agency said they found the

additional reporting requirements associated with using the funds burdensome.

Appendix III: Objectives, Scope, and Methodology

This report: (1) describes the types of transit security projects for which the Federal Emergency Management Agency (FEMA) awarded Transit Security Grant Program (TSGP) grants from fiscal years 2015 through 2021, (2) evaluates the extent to which FEMA's process for awarding grants is consistent with relevant federal grant requirements, and (3) evaluates how FEMA assesses risk to transit agencies' security when awarding grants. To address these objectives and obtain background information, we reviewed relevant statutes and regulations, including the Implementing Recommendations of the 9/11 Commission Act of 2007, and internal policies for FEMA's grant programs.[1] We reviewed previous reports related to FEMA's risk-informed preparedness grant programs.[2] We also interviewed officials from the American Public Transportation Association, which represents public transit agencies, to obtain their perspectives on the TSGP and reviewed their relevant publications.[3]

To address our first objective, we collected and analyzed FEMA data on grants awarded from fiscal years 2015 through 2021 and program documents describing eligible project types.[4] The data included the number of grants awarded each year, grant recipients and their locations, amounts awarded, and project categories FEMA assigned to each grant. We provide additional information from this analysis in Appendix I. We selected this time frame for review because the period of performance was 36 months for each year we reviewed, meaning each grant recipient had the same amount of time to complete their projects during this time

[1]Pub. L. No. 110-53, 121 Stat. 266; Federal Emergency Management Agency, *Grants Management*, FEMA Manual 205-0-1 (Washington, D.C.: Jan. 23, 2018).

[2]GAO, *Homeland Security Grant Program: Additional Actions Could Further Enhance FEMA's Risk-Based Grant Assessment Model*, GAO-18-354 (Washington, D.C.: Sept. 6, 2018); and National Research Council, *Review of the Department of Homeland Security's Approach to Risk Analysis* (Washington, D.C.: The National Academies Press, 2010).

[3]American Public Transportation Association, *Security Risk Assessment Methodology for Public Transit* (Washington, D.C.: March 23, 2021); American Public Transportation Association, *Survey of United States Transit System Security Needs, Summary of Findings* (Washington, D.C.: April 2010).

[4]We collected the Notices of Funding Opportunity from fiscal years 2015 through 2021, the fiscal year 2021 *Preparedness Grants Manual,* and example application materials and periodic reports.

period.[5] Fiscal year 2021 was the most recently completed award cycle when we initiated our review in March 2022.

We validated FEMA's project type categories by reviewing each grant and assessing whether the assigned category matched the project's description and the definition of the category FEMA provided. Two analysts independently reviewed the project descriptions and proposed categories that better fit the descriptions, if needed. The analysts compared results and reached consensus to identify the most appropriate project type category. We confirmed the accuracy of any changes we made to the project type categories with FEMA officials. We developed additional project type categories to describe in more detail the types of law enforcement and equipment projects for which FEMA awarded grants during this time.

We further assessed the reliability of FEMA's data by checking for missing values, errors, or inconsistencies, and comparing them with publicly available information about grant recipients. We identified some errors and inconsistencies in naming conventions and grant recipient locations across the 7 years of grant data. We confirmed the errors in the data with FEMA officials and made changes based on consultation with FEMA officials to ensure consistency for reporting purposes. We also interviewed FEMA officials to understand how they developed the data, the sources of the data, how FEMA used them, and any steps FEMA took to ensure their accuracy. We determined that the data were sufficiently reliable to describe the number of grants awarded, the grant recipients, amounts awarded, and the types of projects for which FEMA awarded grants during this time period.

For objectives one and two, we interviewed officials from all 23 transit agencies that received a TSGP grant in fiscal year 2021. These agencies were:

- Chicago Transit Authority
- City of Kansas City, MO
- Connecticut Department of Transportation
- Dallas Area Rapid Transit

[5]In fiscal year 2014, the period of performance was 24 months. In fiscal year 2022, the period of performance was 48 months for infrastructure projects and 36 months for all other project types.

- Delaware River Port Authority
- Fort Worth Transportation Authority (Trinity Metro)
- King County Department of Transportation
- Los Angeles County Metropolitan Transportation Authority
- Maryland Transit Administration
- Massachusetts Bay Transportation Authority
- Metropolitan Atlanta Rapid Transit Authority
- New York Metropolitan Transportation Authority
- Milwaukee County Transit System
- New Jersey Transit
- Niagara Frontier Transportation Authority
- Port Authority of New York and New Jersey
- San Diego Metropolitan Transit System
- San Francisco Bay Area Rapid Transit District
- San Francisco Municipal Transportation Agency
- Southeastern Pennsylvania Transportation Authority
- Southern California Regional Rail Authority
- Tri-County Metropolitan Transportation District
- Washington Metropolitan Area Transit Authority

We selected grant recipients from fiscal year 2021 because it was the most recently completed award cycle when we initiated our review in March 2022, and because the majority of the grant recipients had received TSGP grants in previous years as well. We used a semi-structured interview methodology to obtain generalizable information about fiscal year 2021 grant recipients' experiences with the TSGP, including how transit agencies identify security improvement needs, the factors they consider when developing their grant applications, and their perspectives on FEMA's management of the TSGP. We conducted pretest interviews with officials from two transit agencies to ensure that the questions were clear, unbiased, and easily answered. We included additional information from these interviews in Appendix II.

We also visited three of these transit agencies—Washington Metropolitan Area Transit Authority, Los Angeles County Metropolitan Transportation

Authority, and New York Metropolitan Transportation Authority—to observe TSGP-funded security enhancements. We selected these agencies because they were among the transit agencies that received the most funding between fiscal years 2015 and 2021, they had recently completed security projects that we could easily observe, and they were located in proximity to our work sites.

To address our second objective, we reviewed FEMA's fiscal year 2021 grant award process and compared it with sections 204 and 205, as well as Appendix I, of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance).[6] The Uniform Guidance is federal regulation and provides a government-wide framework for grants management. We selected these sections of the Uniform Guidance because they contain requirements for how FEMA is to design its grant application review process and select recipients, a significant aspect of FEMA's management of the program. To obtain additional information about FEMA's award process, we collected and reviewed program documents, including FEMA's grant application review and evaluation plan, application scoring spreadsheets, and internal briefing materials. We interviewed officials from FEMA's Grant Programs Directorate, as well as senior FEMA and Department of Homeland Security (DHS) officials, to obtain additional information about the application review, evaluation, and selection process.

We compared the information in the fiscal year 2021 Notice of Funding Opportunity with the scores FEMA assigned applications, and the process FEMA used for selecting recipients, that year to assess the extent to which FEMA's award process was consistent with requirements in the Uniform Guidance. We selected fiscal year 2021 because it was the most recently completed award cycle when we began our review in March 2022. We also analyzed FEMA's scores for all grant applications from fiscal years 2015 through 2021 to obtain further evidence about FEMA's award process and identify any trends. We selected this time frame for consistency with the scope of our first reporting objective. We assessed the reliability of FEMA's scoring data by reviewing the scoring spreadsheets for any gaps and errors, and interviewing agency officials to understand how they developed the spreadsheets. We determined that

[6]2 C.F.R. §§ 200.204, .205; 2 C.F.R pt. 200, app. I.

the scoring data were sufficiently reliable for the purposes of assessing FEMA's award process against requirements.

To address our third objective, we collected and reviewed FEMA's fiscal year 2021 report to Congress and standard operating procedures describing FEMA's risk assessment methodology for the TSGP.[7] We reviewed the methodology to identify the inputs FEMA used to assess risk to transit agencies, and compared it with DHS's National Infrastructure Protection Plan and our best practices for economic analyses.[8] We reviewed our previous work on FEMA's risk assessment methodology for other preparedness grant programs.[9] We interviewed officials with FEMA's Preparedness Grants Division, including its Terrorism Risk Section, to obtain additional information about the risk assessment methodology.

For Appendix II, we collected and analyzed all fiscal year 2021 investment justifications (project proposals submitted by applicants) to identify how many transit agencies that year applied for grant management and administration funds and the amounts they requested. We compared the amounts requested for grant management and administration to the total amount requested for the grants. We used the results of this analysis to identify the range of grant management and administration funds requested by fiscal year 2021 applicants as a percentage of their total grant requests.

We conducted this performance audit from March 2022 to July 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.

[7]Federal Emergency Management Agency, *Risk Methodology: Calculating Risk for the FY 2021 DHS Preparedness Grant Programs* (Feb. 18, 2022).

[8]Department of Homeland Security, *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience* (2013); Department of Homeland Security, *Supplemental Tool: Executing a Critical Infrastructure Risk Management Approach*; and GAO-18-151SP.

[9]GAO-18-354.

Appendix IV: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

July 12, 2023

Tina Won Sherman
Director, Homeland Security and Justice
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548-0001

Re: Management Response to Draft Report GAO-23-105956, "TRANSIT SECURITY: FEMA Should Improve Transparency of Grant Decisions"

Dear Ms. Sherman:

Thank you for the opportunity to comment on this draft report. The U.S. Department of Homeland Security (DHS or the Department) appreciates the U.S. Government Accountability Office's (GAO) work in planning and conducting its review and issuing this report.

DHS leadership is pleased to note GAO's positive recognition that the Department updated the risk analysis model to allocate Transit Security Grant Program (TSGP) funding and award grants for the 2012 grant cycle by improving the way the model measured transit agencies' vulnerabilities to terrorism. GAO also noted that DHS took action reduce the risk of duplication and better assess the effectiveness of the four-transportation security related grant programs managed by the Federal Emergency Management Agency's (FEMA) Transportation Infrastructure Security Branch, including the TSGP. DHS remains committed to managing an award process that is consistent with federal grant requirements.

The draft report contained four recommendations with which the Department concurs. Enclosed find our detailed response to each recommendation. DHS previously submitted technical comments addressing several accuracy, contextual, and other issues under a separate cover for GAO's consideration.

Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

Sincerely,

JIM H CRUMPACKER

Digitally signed by JIM H CRUMPACKER
Date: 2023.07.12 13:05:01 -04'00'

JIM H. CRUMPACKER, CIA, CFE
Director
Departmental GAO-OIG Liaison Office

Enclosure

2

Enclosure: Management Response to Recommendations Contained in GAO-23-105956

GAO recommended that the Secretary of Homeland Security ensure that the Administrator of FEMA:

Recommendation 1: Accurately describes all the criteria FEMA uses to score applications in the Transit Security Grant Program's Notice of Funding Opportunity, to include how associated weights are applied.

Response: Concur. FEMA Grant Programs Directorate (GPD) will further clarify the language on the application evaluation process in the annual Notice of Funding Opportunity (NOFO). However, it is important to note that GPD may be limited in certain circumstances on what it can disclose regarding methodologies, inputs, and weights due to the potentially sensitive nature of the information related to transit security grants. Further, FEMA GPD will update the NOFO after the enactment of the fiscal year (FY) 2024 DHS Appropriations Act, which may impact milestones for this effort. Estimated Completion Date (ECD): June 28, 2024.

Recommendation 2: Selects Transit Security Grant Program project applications to recommend for award in accordance with FEMA's publicly disclosed merit review process, to include scoring criteria published in the Notice of Funding Opportunity.

Response: Concur. Following enactment of the FY 2024 DHS Appropriations Act, FEMA GPD will expand the narrative in the annual NOFO to clarify the entire evaluation process. It is important to note, however, the Secretary of Homeland Security retains the authority to exercise discretion over the grants process based on risk, as appropriate. ECD: June 28, 2024

Recommendation 3: Incorporates cyber threats into the Transit Security Grant Program risk model.

Response: Concur. FEMA GPD, in coordination with the Transportation Security Administration (TSA) Security Operations Surface Division, Cybersecurity and Infrastructure Security Agency (CISA) National Risk Management Center (NRMC), and the DHS Office of Intelligence and Analysis, continues to research possible enhancements to the TSGP risk model that include a cyber data element. If an appropriate data source is identified, FEMA GPD will include cyber data as an element of threat. Specifically, this activity will include:

Actions	ECD
Research, identify, analyze, and evaluate possible cyber national-level data sets	October 31, 2023
Evaluate weights and identify potential alternatives	November 30, 2023
DHS partners and stakeholders provide feedback on potential cyber data set and weights	January 31, 2024
FEMA and DHS evaluation and recommendation	March 29, 2024
Finalize draft report	June 28, 2024
Incorporate cyber threats into the Transit Security Grant Program risk model. Document the underlying assumptions and justifications for the Transit Security Grant Program risk model, to include the rationale used to assign weights to components.	December 31, 2024

Overall ECD: December 31, 2024.

Recommendation 4: Documents the underlying assumptions and justifications for the Transit Security Grant Program risk model, to include the rationale used to assign weights to components.

Response: Concur. The weights are determined by policy, which is documented in the 2008 "Risk Methodology Report to Congress" (RMRTC). FEMA GPD and the TSA Security Operations Surface Division routinely review the weights for the overall bus and rail weighted risk inputs, and neither FEMA GPD nor TSA have encountered any new data that would justify changes to the relative weights. However, multiple changes have been made to the various Threat, Vulnerability, and Consequence data input weights over the years, and these changes were reviewed and approved by FEMA, TSA, and DHS leadership. FEMA GPD will continue to document and provide evidence for modeling changes to data inputs and their associated weights each year in the RMRTC and other annual TSGP documentation. When necessary to protect sensitive information, the underlying assumptions and justifications will be documented internally and maintained for audit and oversight purposes. Specifically, this activity will include:

Actions	ECD
Research, identify, analyze, and evaluate possible cyber national-level data sets	October 31, 2023
Evaluate weights and identify potential alternatives	November 30, 2023
DHS partners and stakeholder provide feedback on potential cyber data set and weights	January 31, 2024
FEMA and DHS evaluation and recommendation	March 29, 2024
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Incorporate cyber threats into the Transit Security Grant Program risk model. Document the underlying assumptions and justifications for the Transit Security Grant Program risk model, to include the rationale used to assign weights to components.	December 31, 2024

Overall ECD: December 31, 2024.

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Appendix V: GAO Contact and Staff Acknowledgements

GAO Contact

Tina Won Sherman at 202-512-8461 or ShermanT@gao.gov

Staff Acknowledgements

In addition to the contact named above, Orin (Ben) Atwater (Assistant Director), Kelsey Burdick (Analyst in Charge), Amelia Koby, Rebecca Rogers, and Kelsey Wilson made key contributions to this report. Nasreen Badat, Steven Flint, Charlotte Gamble, Eric Hauswirth, John Karikari, Tracey King, and Amanda Miller also contributed to this report.

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