December 2002

MASS TRANSIT

Federal Action Could Help Transit Agencies Address Security Challenges

GAO

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GAO-03-263

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Why GAO Did This Study

About one-third of terrorist attacks worldwide target transportation systems, and transit systems are the mode most commonly attacked. In light of the history of terrorism against mass transit and the terrorist attacks on September 11, GAO was asked to examine challenges in securing transit systems, steps transit agencies have taken to improve safety and security, and the federal role in transit safety and security. To address these objectives, GAO visited 10 transit agencies and surveyed a representative sample of transit agencies, among other things.

What GAO Recommends

To provide transit agencies greater flexibility in paying for transit security enhancements, GAO recommends that the Secretary of Transportation consider seeking a legislative change to allow all transit agencies to use federal urbanized area formula funds for security-related operating expenses. GAO also makes several other recommendations to the Secretary of Transportation.

The Department of Transportation generally agreed with the report's findings and agreed to carefully consider GAO's recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-03-263.

To view the full report, including the scope and methodology, click on the link above. For more information, contact Peter Guerrero, at (202) 512-2834 or guerrerop@gao.gov.

What GAO Found

Transit agencies have taken a number of steps to improve the security of their systems since September 11, such as conducting vulnerability assessments, revising emergency plans, and training employees. Formidable challenges, however, remain in securing transit systems. Obtaining sufficient funding is the most significant challenge in making transit systems as safe and secure as possible, according to GAO survey results and interviews with transit agency officials. Funding security improvements is problematic because of high security costs, competing budget priorities, tight budget environments, and a provision precluding transit agencies that serve areas with populations of 200,000 or more from using federal urbanized area formula funds for operating expenses. In addition to funding challenges, certain characteristics of transit agencies make them both vulnerable to attack and difficult to secure. For example, the high ridership and open access of some transit systems makes them attractive for terrorists but also makes certain security measures, like metal detectors, impractical. Moreover, because all levels of the government and the private sector are involved in transit decisions, coordination among all the stakeholders can pose challenges.

While transit agencies are pursuing security improvements, the federal government's role in transit security is expanding. For example, the Federal Transit Administration (FTA) launched a multipart security initiative and increased funding of its safety and security activities after September 11. In addition, the Aviation and Transportation Security Act gave the Transportation Security Administration (TSA) responsibility for the security of all transportation modes, including transit. TSA anticipates issuing national standards for transit security. As the federal government's role expands, goals, performance indicators, and funding criteria need to be established to ensure accountability and results for the government's efforts.

At a planned emergency drill, firefighters practice rescuing passengers from a Washington Metropolitan Area Transit Authority subway car.

Source: GAO.

Contents

Abbreviations

APTA	American Public Transportation Association
DOD	Department of Defense
FBI	Federal Bureau of Investigation
FTA	Federal Transit Administration
GAO	General Accounting Office
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
TSA	Transportation Security Administration
TEA-21	Transportation Equity Act for the 21st Century

United States General Accounting Office
Washington, D.C. 20548

December 13, 2002

The Honorable Paul S. Sarbanes
Chairman, Committee on Banking,
  Housing, and Urban Affairs
United States Senate

The Honorable Jack Reed
Chairman, Subcommittee on
 Housing and Transportation
Committee on Banking, Housing,
  and Urban Affairs
United States Senate

Over a year has passed since the terrorist attacks of September 11, 2001, realigned our national priorities. While most of the early attention following these attacks focused on airport security, emphasis on the other modes of transportation has since grown. Moreover, terrorist events around the world have shown that mass transit systems, like other modes of transportation, are often targets of attack. For example, roughly one-third of terrorist attacks worldwide target transportation systems, and transit systems are the mode most commonly attacked.[1] In May 2002, the Department of Transportation issued a terrorist threat advisory to the transit industry indicating that subway systems were a possible target. The industry remains in a heightened state of alert.

Addressing transit safety and security concerns is complicated by the nature and scope of transit in the United States. About 6,000 agencies provide transit services, such as buses, subways, ferries, and light rail, in the United States. Each workday, about 14 million Americans ride on some form of transit. Because the effectiveness of transit systems depends on their accessibility, security measures common in aviation are difficult to apply. Furthermore, government agencies at the federal, state, and local levels and private companies share responsibility for transit safety and security and are involved in making transit decisions.

This report examines transit safety and security at the federal and local levels. In particular, the report describes (1) challenges in securing mass

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[1]Congressional Research Service, *Transportation Issues in the 107th Congress*, (Washington, D.C.: July 16, 2002).

transit systems, (2) steps transit agencies have taken to enhance safety and security, and (3) the federal role in transit safety and security. To address these issues, we visited 10 transit agencies across the country, including the Capital Metropolitan Transportation Authority in Austin; Chicago Transit Authority; Central Florida Regional Transit Authority in Orlando; Los Angeles County Metropolitan Transportation Authority; Minneapolis-St. Paul Metropolitan Council; New York City Transit; Regional Transportation District in Denver; San Francisco Bay Area Rapid Transit; San Francisco Municipal Railway; and Washington Metropolitan Area Transit Authority in the District of Columbia. We selected these agencies because they represent different geographical areas and operate transit systems of different sizes and modes. In addition, we surveyed a random sample of all transit agencies throughout the nation that are eligible to receive federal urbanized area formula funds[2] to obtain additional information on safety and security issues. We received responses to our survey from 155 of 200 transit agencies, for an overall response rate of 78 percent. Our survey results are generalizable to our sample population. The survey instrument and overall results are included in appendix I. (See app. II for a more detailed discussion of our report's scope and methodology.)

Results in Brief

Transit agencies face significant challenges in making their systems secure because, in part, certain characteristics make them both vulnerable and difficult to secure. For example, the high ridership of some transit agencies makes them attractive targets for terrorists but also makes certain security measures, like metal detectors, impractical. The high cost of transit security improvements also creates challenges for transit agencies. Although some security improvements, such as closing bus doors at night, have little or no cost, most improvements require substantial funding. For example, the total estimated cost of the identified security improvements at 8 of the 10 transit agencies we visited is over $700 million. According to our survey results and our interviews with transit agency officials, insufficient funding is the most significant challenge in making their transit systems as safe and secure as possible. Funding security improvements is challenging for a number of reasons including tight budget environments, competing budget priorities, and a prohibition on transit agencies that serve areas with populations of 200,000 or more from using federal

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[2]The federal urbanized area formula program provides federal funds to urbanized areas (jurisdictions with populations of 50,000 or more) for transit capital investments, operating expenses, and transportation-related planning.

urbanized area formula funds for operating expenses. This prohibition prevents transit agencies that serve large urbanized areas from using federal funds for security-related operating expenses, such as security personnel. Finally, our site visits and survey results show that coordination among all transit stakeholders pose challenges. Our discussions with transit agency and local government officials and our survey revealed substantial coordination on emergency planning among transit agencies and local governments; however, transit agencies reported some challenges, such as limited awareness of terrorist threats to transit and lack of coordination among various local agencies. Furthermore, coordination of emergency planning among transit agencies and governments at the regional, state, and federal levels appears to be minimal.

Despite the formidable challenges in securing transit systems, transit agencies have taken a number of steps to improve the security of their systems. The transit agencies we visited were implementing strategies to improve both safety and security before September 11; however, the terrorist attacks on September 11 elevated the importance of security-related activities. As a result, the transit agencies we visited and surveyed have implemented new security initiatives or increased the frequency of existing activities since last September. For example, many agencies have assessed vulnerabilities, provided additional training on emergency preparedness, revised emergency plans, and conducted multiple emergency drills. Several agencies we visited have also implemented innovative practices to enhance safety and security, such as training police officers to drive buses and implementing an employee suggestion program to solicit ideas for improving security.

The federal government's role in transit security is evolving. For example, although the Federal Transit Administration (FTA) has limited authority to oversee and regulate transit security, it launched a multipart security initiative after September 11. In addition, the Aviation and Transportation Security Act created the Transportation Security Administration (TSA) within the Department of Transportation and gave it responsibility for all modes of transportation; however, TSA has yet to exert full responsibility for the security of any transportation mode other than aviation. TSA and FTA are currently developing a memorandum of agreement that will define each agency's roles and responsibilities for transit security. TSA will also be transferred to the new Department of Homeland Security as part of the recently passed Homeland Security Act (HR 5005). Although most of the transit agencies we visited said FTA's security initiative has been useful, they would like the federal government to provide more assistance to

support transit security, such as more information, help in obtaining security clearances, increased funding, and more security-related research and development. When considering the federal government's role in funding transit safety and security initiatives, policymakers will need to address several issues, including (1) determining the roles of stakeholders in funding transit security; (2) developing federal funding criteria; (3) establishing goals and performance indicators for federal efforts in transit security; and (4) selecting the appropriate federal policy instruments (e.g., grants and regulations) to deliver assistance that may be deemed necessary by policymakers.

To give transit agencies greater flexibility in paying for transit security improvements, we are recommending that the Secretary of Transportation consider seeking a legislative change to allow all transit agencies, regardless of the size of the urbanized area that they serve, to use urbanized area formula funds for security-related operating expenses. We are also making several other recommendations that are designed to promote accountability, direct finite federal resources to the areas of highest priority, and help transit agencies obtain intelligence information. We provided the Department of Transportation with a draft of this report for their review and comment. Department of Transportation officials generally agreed with the report's findings and conclusions and agreed to carefully consider the report's recommendations as the Department continues working to improve transit security around the country.

Background

In 2000, mass transit systems provided over 9 billion passenger trips and employed about 350,000 people in the United States.[3] The nation's transit systems include all multiple-occupancy-vehicle services designed to transport customers on local and regional routes, such as bus, trolley bus, commuter rail, vanpool, ferry boat, and light rail services, and are valued at a trillion dollars. As figure 1 shows, buses are the most widely used form of transit, providing almost two-thirds of all passenger trips.

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[3]According to the American Public Transportation Association, its 2000 ridership data are preliminary.

Figure 1: Ridership by Transit Mode, 2000

- **1%** Trolley bus
- **2%** Other[b]
- **3%** Light rail
- **4%** Commuter rail
- **28%** Heavy rail[a]
- **61%** Bus
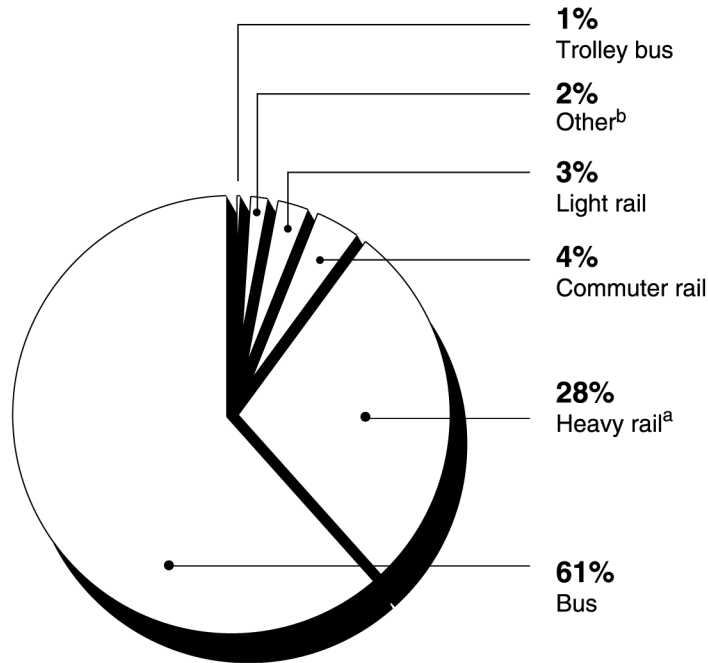
Source: American Public Transportation Association.

Note: Ridership data for 2000 are preliminary. Percentages do not add to 100 percent because of rounding.

[a]Heavy rail is an electric railway that can carry a heavy volume of traffic. It 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 are excluded, sophisticated signaling, and high-platform loading. Most subway systems are considered heavy rail.

[b]"Other" includes a variety of transit modes such as ferryboat, vanpool, and demand response (i.e., paratransit).

A number of organizations are involved in the delivery of transit services in the United States, including federal, state, and local governments and the private sector:

- **FTA** provides financial assistance to transit agencies to plan and develop new transit systems and operate, maintain, and improve existing systems. FTA is responsible for ensuring that the recipients of federal transit funds follow federal mandates and administrative requirements. FTA's Office of Safety and Security is the agency's focal

point for transit safety (freedom from unintentional danger) and security (freedom from intentional danger).

- **State and local governments** also provide a significant amount of funding for transit services. As figure 2 shows, state and local governments provide funding for over 40 percent of transit agencies' operating expenses and about a quarter of their capital expenses. According to statute,[4] states are also responsible for establishing State Safety Oversight Agencies to oversee the safety of transit agencies' rail systems.

- **Transit agencies**, which can be public or private entities, are responsible for administering and managing transit activities and services. Transit agencies can directly operate transit service or contract for all or part of the total transit service provided. About 6,000 agencies provide transit services in the United States, and the majority of these agencies provide more than one mode of service. Although all levels of government are involved in transit security, the primary responsibility for securing transit systems has rested with the transit agencies.

[4]49 U.S.C. Sec. 5330.

Figure 2: Sources of Funding for Transit Operating and Capital Expenses, 2000

Operating expenses

- **36%** Fares
- **4%** Federal
- **17%** Other[a]
- **21%** State
- **22%** Local

Capital expenses

- **47%** Federal
- **11%** State
- **15%** Local
- **27%** Directly generated[b]
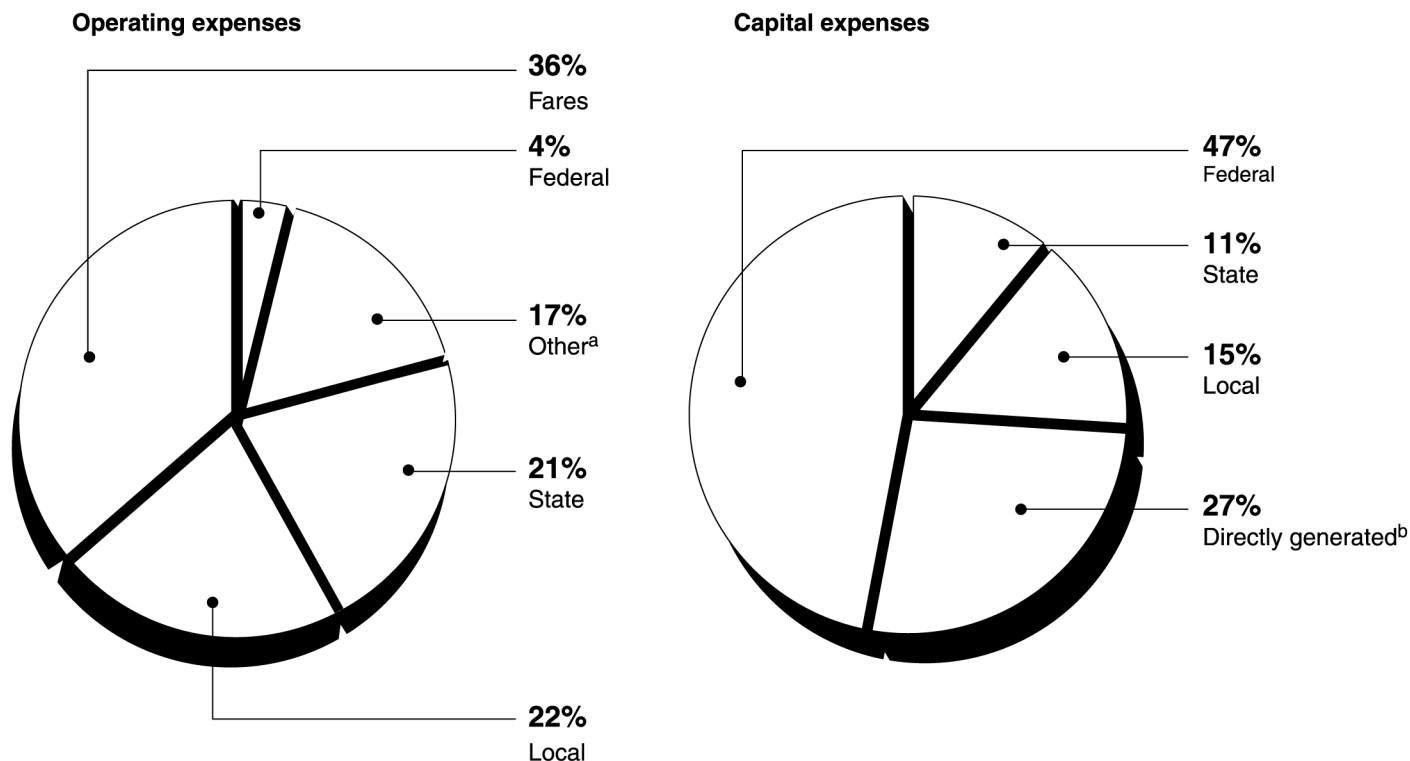
Source: American Public Transportation Association.

Note: Operating and capital expense data for 2000 are preliminary.

[a]"Other" includes taxes levied directly by transit agencies and other dedicated funds, such as tolls and advertising.

[b]Directly generated expenses include nongovernmental funding, subsidies from the nontransit sectors of a transit agency's operations, taxes levied directly by a transit agency, and bridge and tunnel tolls.

FTA administers a number of programs, both discretionary and formula based, that provide federal funding support to transit agencies. The largest of these programs is the urbanized area formula grant program, which provides federal funds to urbanized areas (jurisdictions with populations of 50,000 or more) for transit capital investments, operating expenses, and transportation-related planning. As figure 3 shows, the urbanized area formula grant program accounts for almost one-half of the total authorized funds for all transit programs under the Transportation Equity Act for the

21st Century (TEA-21).[5] Recipients of urbanized area formula funds are required to spend at least 1 percent of these funds to improve the security of existing or planned mass transportation systems unless the transit agencies certify that such expenditures are unnecessary.[6]

Figure 3: Funding Authorized by TEA-21 for the Urbanized Area Formula Program and All Other Federal Transit Programs, 1998-2003

44%
Urbanized area formula program
($18 billion)

56%
All other programs
($23 billion)
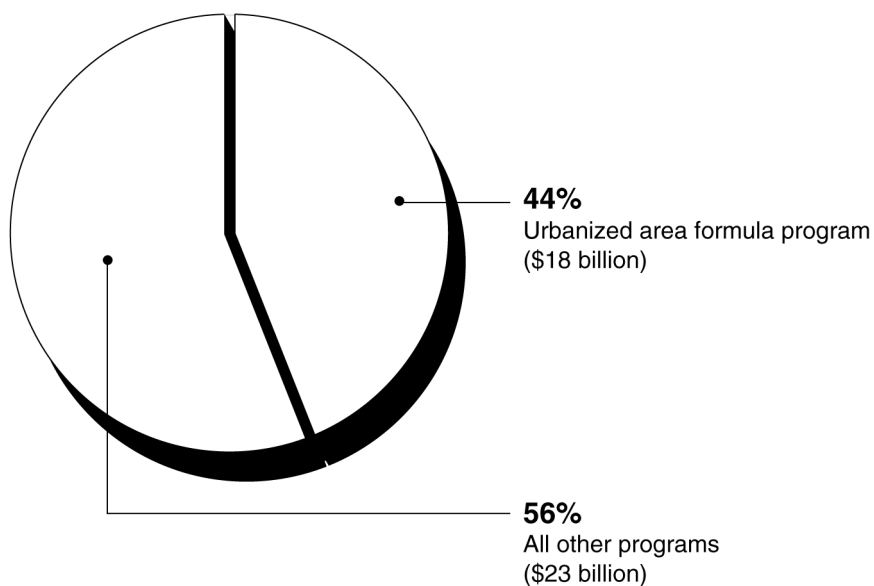
Source: *Federal Register*, Vol. 67, No. 1, January 2, 2002, Notices (pp. 126 and 181).

Note: Totals represent guaranteed and nonguaranteed funding.

Restrictions on the use of urbanized area formula funds for operating expenses have changed over the years. When the urbanized area formula program was created in 1982,[7] funds could be used by transit agencies, regardless of an area's population, for operating expenses with certain

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[5]P.L. No. 105-178 (1998). TEA-21 is the current authorizing legislation for federal transit programs.

[6]49 U.S.C. Sec. 5307 (d)(1)(J)(i) and (ii).

[7]Surface Transportation Assistance Act of 1982, P.L. 97-424.

limitations.[8] However, during fiscal years 1995 to 1997, an overall cap was placed on the total amount of these formula grants that could be used for operating expenses. In fiscal year 1995, the cap was $710 million, and in fiscal years 1996 and 1997 it was $400 million. With the passage of TEA-21 in 1998, the restrictions on urbanized area formula funds were again changed. Specifically, TEA-21 prohibits transit agencies that serve urbanized areas with populations of 200,000 or more from using urbanized area formula funding for operating expenses. According to FTA officials, the prohibition was instituted because policymakers believed the federal government should only pay for the construction of mass transit systems, not their operations. The legislative history of TEA-21 indicates that the Congress allowed transit agencies serving urban areas with populations of less than 200,000 to continue to use urbanized area formula funds for operating expenses so that they would have sufficient funding flexibilities.

Throughout the world, public surface transportation systems have been targets of terrorist attacks. For example, the first large-scale terrorist use of a chemical weapon occurred in 1995 in the Tokyo subway system. In this attack, a terrorist group released sarin gas on a subway train, killing 11 people and injuring about 5,500. In addition, according to the Mineta Transportation Institute,[9] surface transportation systems were the target of more than 195 terrorist attacks from 1997 through 2000. As figure 4 illustrates, buses were the most common target during this period.

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[8]Specifically, urbanized areas with populations over 1 million could use up to 80 percent of their urbanized area formula funds for operating expenses; urbanized areas with populations between 200,000 and 1 million could use up to 90 percent; and urbanized areas with populations of less than 200,000 could use up to 95 percent.

[9]Congress, as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), established the Mineta Transportation Institute. The Institute focuses on international surface transportation policy issues as related to three primary responsibilities: research, education, and technology transfer.

Figure 4: Targets of Attacks on Public Surface Transportation Systems Worldwide, 1997-2000

41%
Buses

1%
Bridges and tunnels

5%
Other

5%
Tourist buses

8%
Bus terminals

8%
Tracks

10%
Subway and train stations

22%
Subways and trains
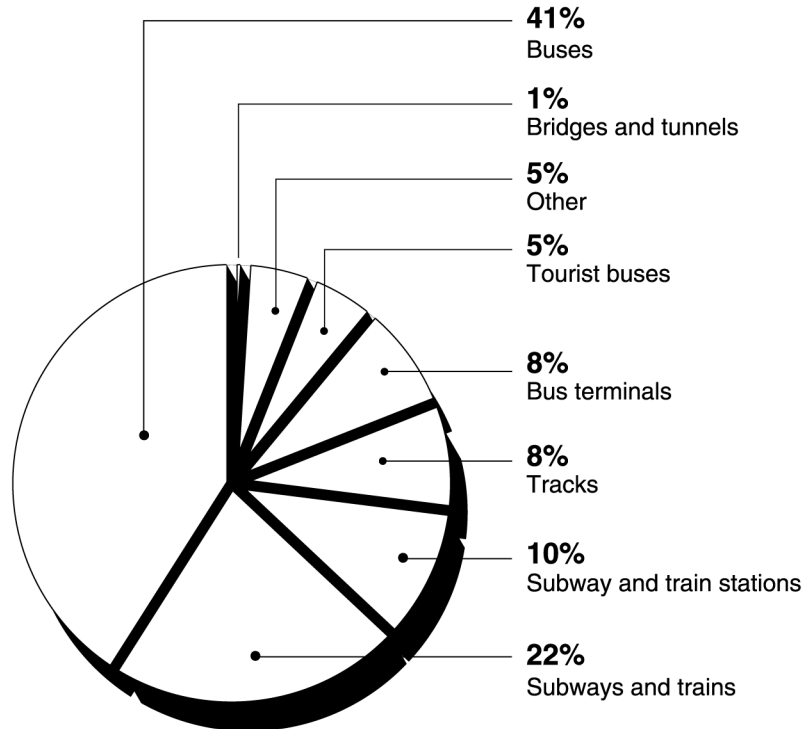
Source: Based on information from the Mineta Transportation Institute.

Transit Agencies Face Challenges in Making Transit Systems Secure

Transit agencies face significant challenges in making their systems secure. Certain characteristics of transit systems, such as their high ridership and open access, make them both vulnerable to attack and difficult to secure. The high cost of transit security improvements, coupled with tight budgets, competing needs, and a restriction on using federal funds for operating expenses (including security-related operating expenses such as additional security patrols) in large urban areas creates an even greater challenge for transit agencies. Moreover, because of the numerous stakeholders involved in transit security, coordination can become a problem.

Characteristics of Transit Systems Pose Security Challenges

According to transit officials and transit security experts, certain characteristics of mass transit systems make them inherently vulnerable to terrorist attacks and difficult to secure. By design, mass transit systems are open (i.e., have multiple access points and, in some cases, no barriers) so that they can move large numbers of people quickly. In contrast, the aviation system is housed in closed and controlled locations with few entry points. The openness of mass transit systems can leave them vulnerable because transit officials cannot monitor or control who enters or leaves the systems. In addition, other characteristics of some transit systems—high ridership, expensive infrastructure, economic importance, and location (e.g., large metropolitan areas or tourist destinations)—also make them attractive targets because of the potential for mass casualties and economic damage. Moreover, some of these same characteristics make transit agencies difficult to secure. For example, the number of riders that pass through a mass transit system—especially during peak hours—make some security measures, such as metal detectors, impractical. In addition, the multiple access points along extended routes make the costs of securing each location prohibitive.

Further complicating transit security is the need for transit agencies to balance security concerns with accessibility, convenience, and affordability. Because transit riders often could choose another means of transportation, such as a personal automobile, transit agencies must compete for riders. To remain competitive, transit agencies must offer convenient, inexpensive, and quality service. Therefore, security measures that limit accessibility, cause delays, increase fares, or otherwise cause inconvenience could push people away from transit and back into their cars. Our discussions with transit agency officials and our survey results indicate that striking the right balance between security and these other needs is difficult. For example, as shown in figure 5, 9 percent of survey respondents reported that the most significant barrier to making their transit systems as safe and secure as possible is balancing riders' need for accessibility with security measures.

Figure 5: Most Significant Challenge to Securing Transit Systems as Reported by Surveyed Agencies

Identified challenges

Challenge	Percentage
Insufficient funding	44
Balancing security and safety priorities against other priorities	16
Unsure about what level of security is appropriate	12
Balancing riders' need for accessibility with safety and security measures	9
Lack of available technology or information on technology	1
Inadequate information on terrorist threats	4
Insufficient staff time or availability to devote to safety and security	4
Limited staff knowledge	4
Lengthy process to gain approval for safety and security measures	1
Other	2
No challenges	4

Percentage

Source: Analysis of GAO survey results.

Note: Percentages do not add to 100 percent due to rounding.

Funding Security Improvements Is a Key Challenge

Funding security improvements is a key challenge for transit agencies. Our survey results and our interviews with transit agency officials indicate that insufficient funding is the most significant challenge in making transit systems as safe and secure as possible. Moreover, our survey results indicate that the most common reason for not addressing items identified as needing attention through safety and security assessments is insufficient funding. Factors contributing to funding challenges include high security costs, tight budgets, competing budget priorities, and a provision prohibiting transit agencies in large urbanized areas from using federal urbanized area formula funds for operating expenses, such as security training.

Transit security investments can be quite expensive. While some security improvements are inexpensive, such as removing trash cans from subway platforms, most require substantial funding. For example, one transit agency estimated that an intrusion alarm and closed circuit television system for only one of its portals would cost approximately $250,000—an amount equal to at least a quarter of the capital budgets of more than half the transit agencies we surveyed. According to our survey results, the top three safety and security funding priorities of transit agencies regardless of size are enhanced communication systems, surveillance equipment, and additional training. The transit agencies we visited have identified or are identifying needed security improvements, such as upgraded communication systems, additional fencing, surveillance equipment, and redundant or mobile command centers. Of the 10 transit agencies we visited, 8 had developed cost estimates of their identified improvements. The total estimated cost of the identified security improvements at the 8 agencies is about $711 million. The total cost of all needed transit security improvements throughout the country is unknown;[10] however, given the scope of the nation's transit systems and the cost estimate for 8 agencies, it could amount to billions of dollars.

Transit agency officials told us that they are facing tight budgets, which make it more difficult for their agencies to pay for expensive security improvements. According to most of the agencies we visited, the weakened economy has negatively affected their revenue base by lowering ridership, tax revenues dedicated to transit, or both. In particular, 8 of the 10 agencies

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[10]Because about 40 percent of the transit agencies we surveyed could not provide cost estimates for their identified safety and security needs, we cannot provide an aggregated estimate for the surveyed transit agencies.

we visited reported that ridership has dropped this year, primarily because of the slow economy. The decreased ridership levels have lowered fare box revenue. In addition, state and local sales taxes, which provide revenue for many transit agencies, have declined with the weakened economy and reduced the transit agencies' revenue, according to a number of transit agency officials.

Other competing funding needs also present a challenge for transit agencies. Given the tight budget environment, transit agencies must make difficult trade-offs between security investments and other needs, such as service expansion and equipment upgrades. For example, an official at one transit agency stated that budget shortfalls and expenditures for security improvements have delayed some needed capital projects and reduced the budgets for all departments—except the safety and security budget. Similarly, an official at another agency reported that his agency is funding security improvements with money that was budgeted for nonsecurity projects. According to our analysis, 16 percent of the agencies we surveyed view balancing safety and security priorities against other priorities as the most significant challenge to making their systems as safe and secure as possible.

Officials from some transit agencies we visited also reported that the funding challenges are exacerbated by the current statutory limitation on using urbanized area formula funds for operating expenses. The urbanized area formula program provides federal funds to urbanized areas (jurisdictions with populations of 50,000 or more) for transit capital investments, operating expenses, and transportation-related planning. The program is the largest source of federal transit funding. As mentioned earlier, TEA-21 prohibits transit agencies in large urbanized areas (jurisdictions with populations of 200,000 or more) from using urbanized area formula funding for most operating expenses. This prohibition limits many agencies' ability to use FTA funds for security-related operating expenses. For example, transit agencies in large urbanized areas cannot use their urbanized area formula funds to pay for security training or salaries for security personnel, among other uses. Officials from a number of agencies we visited said this prohibition was a significant barrier to funding needed security improvements, although several agency officials also noted that the elimination of this prohibition would be helpful only if additional funding were provided. Given the declining revenue base of some transit agencies, however, the prohibition compounds the budgetary challenges of securing transit systems.

Coordination Is Key to Transit Security but Presents Challenges

Coordination among all stakeholders is integral to enhancing transit security, but it can create additional challenges. Numerous stakeholders are typically involved in decisions that affect transit security, such as decisions about its operations and funding. As we noted in our testimony before the Subcommittee on Transit and Housing in September and in previous reports, coordination among all levels of government and the private sector is critical to homeland security efforts, and a lack of coordination can create problems, such as duplication of effort.[11] In addition, the national strategy for homeland security recognizes the challenges associated with intergovernmental coordination but emphasizes the need for such coordination. According to our site visits and our survey results, coordination of emergency planning is generally taking place between transit agencies and local governments, despite some challenges; however, such coordination appears to be minimal between transit agencies and governments at the regional, state, and federal levels.

We found that transit agencies and local governments are coordinating their emergency planning efforts. Our survey results indicate that 77 percent of transit agencies have directly coordinated emergency planning at the local level; moreover, 65 percent of agencies surveyed believe they have been sufficiently integrated into their local government's emergency plans. Likewise, 9 of the 10 transit agencies we visited said they are integrated to at least a moderate extent into their local government's emergency planning. Officials from these 9 transit agencies noted that their agencies are included in their local government's emergency planning activities, such as emergency drills, tabletop exercises, planning meetings, and task forces. For example, when Minneapolis held an emergency drill that simulated a biological attack on the city, Metro Transit transported "victims" to hospitals, even taking some victims to out-of-state hospitals because the local hospitals were at capacity. Transit agency and local government officials said their past experiences with weather emergencies and special events, like Super Bowl celebrations, had helped establish good working relationships. According to the officials, these past experiences have demonstrated the types of support services transit agencies can

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[11]U.S. General Accounting Office, *Mass Transit: Challenges in Securing Transit Systems*, GAO-02-1075T (Washington, D.C.: Sept. 18, 2002); U.S. General Accounting Office, *Homeland Security: Effective Intergovernmental Coordination Is Key to Success*, GAO-02-1011T (Washington, D.C.: Aug. 20, 2002); and U.S. General Accounting Office, *National Preparedness: Integration of Federal, State, Local, and Private Sector Efforts Is Critical to an Effective National Strategy for Homeland Security*, GAO-02-621T (Washington, D.C.: Apr. 11, 2002).

provide during emergencies, including evacuations, triage centers, victim transport, and shelters. However, officials said these working relationships are usually informal and undocumented. For example, the majority of the transit agencies we visited did not have a memorandum of understanding with their local government.

Although transit agencies are generally active participants in emergency planning at the local level, they nevertheless face some coordination challenges. According to our survey results, some of the most significant challenges in coordinating emergency planning at the local level are insufficient funding, limited awareness of terrorist threats to transit, and lack of time. Similar concerns were often raised during our meetings with transit agencies. For example, one agency official noted that his agency operates in over 40 jurisdictions and that coordinating with all of these local governments is very time consuming.

In contrast to the local level, coordination of emergency planning among transit agencies and governments at the regional, state, and federal levels appears to be minimal. Most of the transit agencies we visited reported limited coordination with governments other than their local government. Our survey results reveal a similar pattern. For example, 68 percent of transit agencies we surveyed have not directly coordinated emergency planning at the regional level; 84 percent have not directly coordinated emergency planning at the state level; and 87 percent have not directly coordinated emergency planning at the federal level. As we have noted in past reports on homeland security, the lack of coordination among stakeholders could result in communication problems, duplication, and fragmentation. Without coordination, transit agencies and governments also miss opportunities to systematically identify the unique resources and capacities that each can provide in emergencies.

Transit Agencies Are Taking Steps to Enhance Security

Prior to September 11, all 10 transit agencies we visited and many of the transit agencies we surveyed were implementing measures to enhance transit safety and security, such as revising emergency plans and training employees on emergency preparedness. Transit agency officials we interviewed often noted that the 1995 sarin gas attack on the Tokyo subway system or their agency's experiences during natural disasters had served as catalysts for focusing on safety and security. Although safety and security were both priorities, the terrorist attacks on September 11 elevated the importance of security. (See app. III for select survey results, which includes information on the emergency planning and preparedness of the

transit agencies we surveyed. Differences and similarities of transit agencies in large urbanized areas to those in small urbanized areas are also presented.)

Since September 11, transit agencies have taken additional steps to improve transit safety and security.   Officials from the agencies we visited told us their agencies have been operating at a heightened state of security since September 11. According to agency officials and our survey results, many transit agencies in large and small urbanized areas have implemented new safety and security measures or increased the frequency or intensity of existing activities, including the following:

- **Vulnerability or security assessments:** Many transit agencies have conducted vulnerability or security assessments. For example, all 10 of the agencies we visited and 54 percent of the agencies we surveyed said they had conducted a vulnerability or security assessment since September 11. The purpose of these assessments is to identify potential vulnerabilities and corrective actions or needed security improvements. Improved communication systems, more controlled access to facilities, and additional training were some of the needs identified in the assessments of the agencies we visited.

- **Fast-track security improvements:** Security improvements planned or in process prior to September 11 were moved up on the agenda or finished early. For example, one agency, which was putting alarms on access points to the subway ventilation system before September 11, completed the process early.

- **Immediate, inexpensive security improvements:** Removing bike lockers and trash cans from populated areas, locking underground restrooms, and closing bus doors at night were among the immediate and inexpensive improvements that agencies made.

- **Intensified security presence:** Many agencies have increased the number of police or security personnel who patrol their systems. Surveillance equipment, alarms, or security personnel have been placed at access points to subway tunnels, bus yards, and other nonpublic places. Employees have also been required to wear identification cards or brightly colored vests for increased visibility. For example, 41 percent of the transit agencies we surveyed have required their personnel to wear photo identification cards at all times since September 11.

- **Increased emergency drills:** Many agencies have increased the frequency of emergency drilling—both full-scale drills and tabletop exercises. For example, one agency we visited has conducted four drills since September 11. Agencies stressed the importance of emergency drilling as a means to test their emergency plans, identify problems, and develop corrective actions. Figure 6 is a photograph from an annual emergency drill conducted by the Washington Metropolitan Area Transit Authority.

Figure 6: Emergency Drill in Progress

At a planned emergency drill, firefighters practice rescuing passengers from a Washington Metropolitan Area Transit Authority subway car.

Source: GAO.

- **Revised emergency plans:** Agencies reviewed their emergency plans to determine what changes, if any, needed to be made. For example, 48 percent of the agencies we surveyed, regardless of the size of urbanized area served, created or revised their emergency plans after September 11. In addition, some agencies we visited updated their emergency plans to include terrorist incident protocols and response plans.

- **Additional training**: Agencies participated in and conducted additional training on antiterrorism. For example, all 10 of the agencies we visited had participated in the antiterrorism seminars sponsored by FTA or the American Public Transportation Association. Similarly, 59 percent of all transit agencies we surveyed reported having attended security seminars or conferences since September 11.

Transit Agencies Also Adopt Innovative Practices to Enhance Safety and Security

Some of the agencies we visited have also implemented innovative practices in recent years to increase their safety, security, and preparedness in emergency situations.[12] Through our discussions with transit agencies, we identified some innovative safety and security measures, including the following:

- **Police officers trained to drive buses:** Capital Metro in Austin, Texas, trained some of the city police officers to drive transit buses during emergencies. The police officers received driver training and were licensed to drive the buses. If emergencies require buses to enter a dangerous environment, these trained police officers, instead of transit agency employees, will drive the buses.

- **Training tunnel constructed:** The Washington Metropolitan Area Transit Authority constructed an off-site duplicate tunnel, complete with railcars, tracks, and switches, to simulate an emergency environment for training purposes. (See fig. 7.)

- **Employee suggestion program implemented:** New York City Transit implemented an employee suggestion program to solicit security improvement ideas. If an employee's suggestion is adopted, he or she receives a day of paid leave.

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[12]All of these practices, except for New York's program, were implemented before September 11, 2001.

Figure 7: Washington Metropolitan Area Transit Authority's Training Tunnel

Washington Metropolitan Area Transit Authority's 260-foot tunnel houses two cars positioned to resemble a wreck, as well as simulated electrified third rail, cabling, and lighting that appear identical to those in a real tunnel. The tunnel provides a realistic environment for fire, police, and emergency response departments from local jurisdictions to use for mock fire and rescue exercises, disaster drills, and other simulations.
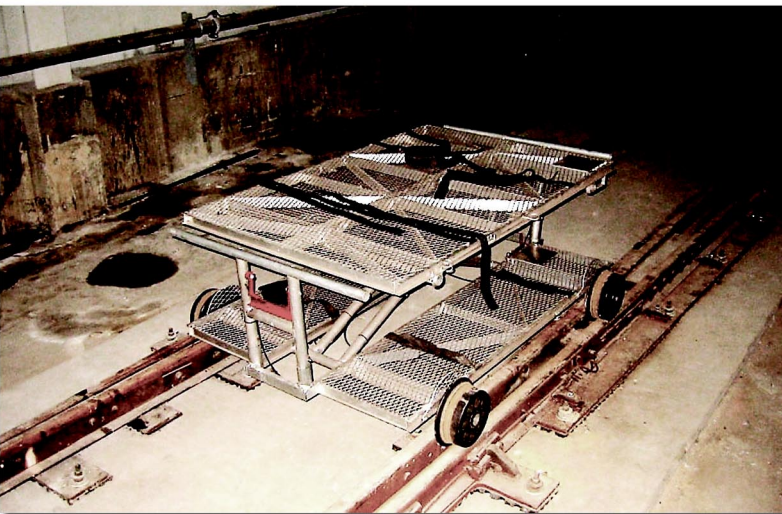
Emergency responders use lightweight carts to transport heavy equipment or people during emergencies.

Source: GAO.

Federal Government's Role in Transit Security Is Evolving

The federal government's role in transit security is evolving. FTA has expanded its role in transit security since September 11 by launching a multipart security initiative and increasing the funding for its safety and security activities. In addition, the Aviation and Transportation Security Act gave TSA responsibility for transit security; however, TSA's role and responsibilities have not yet been defined. Although the transit agencies we visited were generally pleased with FTA's assistance since September 11, they would like the federal government to provide more assistance, including more information and funding. As the federal government's role in transit safety and security initiatives evolves, policymakers will need to address several issues, including (1) the roles of stakeholders in funding transit security, (2) federal funding criteria, (3) goals and performance indicators for the federal government's efforts, and (4) the appropriate federal policy instrument to deliver assistance deemed appropriate.

FTA Has Limited Authority but Has Initiated a Variety of Transit Safety and Security Activities

FTA has limited authority to regulate and oversee safety and security at transit agencies. According to statute, FTA cannot regulate safety and security operations at transit agencies.[13] FTA may, however, institute nonregulatory safety and security activities, including safety- and security-related training, research, and demonstration projects. In addition, FTA may promote safety and security through its grant-making authority. Specifically, FTA may stipulate conditions of grants, such as certain safety and security statutory and regulatory requirements, and FTA may withhold funds for noncompliance with the conditions of a grant.[14] For example, transit agencies must spend 1 percent of their urbanized area formula funds on security improvements.[15] FTA is to verify that agencies comply with this requirement and may withhold funding from agencies that it finds are not in compliance.[16] FTA officials stated that FTA's authority to sponsor

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[13]49 U.S.C. sec. 5324(c).

[14]49 U.S.C. sec. 5324(c) and 49 U.S.C. sec. 5330.

[15]49 U.S.C. sec. 5307(d) (1)(J)(i) and (ii).

[16]According to FTA officials, FTA verifies that agencies spend at least 1 percent of their urbanized area formula funds on security improvements during its triennial review. FTA's triennial review is a full review and evaluation of grantees' performance in carrying out projects, including specific references to compliance with statutory and administration requirements.

nonregulatory activities and to stipulate the conditions of grants is sufficient for the safety and security work they need to accomplish.[17]

Despite its limited authority, FTA had established a number of safety and security programs before September 11. For example, FTA offered voluntary security assessments, sponsored training at the Transportation Safety Institute, issued written guidelines to improve emergency response planning, and partially funded a chemical detection demonstration project, called PROTECT, at the Washington Metropolitan Area Transit Authority. Although FTA maintained both safety and security programs before September 11, its primary focus was on the safety rather than the security programs. This focus changed after September 11.

In response to the terrorist attacks on September 11, FTA launched a multipart transit security initiative last fall. The initiative includes security assessments, planning, drilling, training, and technology:

- **Security assessments:** FTA deployed teams to assess security at 36 transit agencies. FTA chose the 36 agencies on the basis of their ridership, vulnerability, and the potential consequences of an attack.[18] Each assessment included a threat and vulnerability analysis, an evaluation of security and emergency plans, and a focused review of the agency's unified command structure with external emergency responders. FTA completed the assessments in late summer 2002.

- **Emergency response planning:** FTA is providing technical assistance to 60 transit agencies on security and emergency plans and emergency response drills.

- **Emergency response drills:** FTA offered transit agencies grants up to $50,000 for organizing and conducting emergency preparedness drills. According to FTA officials, FTA has awarded $3.4 million to over 80 transit agencies through these grants.

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[17]FTA also has authority to enter into "other agreements" with transit agencies to introduce innovative methods for safety and security on negotiated terms and conditions more favorable to nonfederal participants than are authorized under FTA contracts, grants, or cooperative agreements under 49 U.S.C. sec. 5312(d), and FTA may work with other federal agencies in developing defenses and responses to terrorist incidents.

[18]A professional team of antiterrorism, transit operations, and emergency response experts conducted each assessment.

Security training: FTA is offering free emergency preparedness and security training to transit agencies through its Connecting Communities Forums. These forums are being offered throughout the country and are designed to bring together small- and medium-sized transit agency personnel with their local emergency responders, like local firefighters and police officers. The purpose of the forums is to give the participants a better understanding of the roles played by transit agencies and emergency responders and to allow the participants to begin developing the plans, tools, and relationships necessary to respond effectively in an emergency. In addition, FTA is working with the National Transit Institute and the Transportation Safety Institute to expand safety and security course offerings. For example, the National Transit Institute is now offering a security awareness course to front line transit employees free of charge.

Research and development: FTA increased the funding for its safety- and security-related technology research and has accelerated the deployment of the PROTECT system.

FTA also increased expenditures on its safety and security activities after the attacks of September 11. To pay for its multipart security initiative, FTA reprioritized fiscal year 2002 funds from its other programs and used a portion of the Department of Defense and Emergency Supplemental Appropriations Act of 2002 (DOD supplemental), which provided $23.5 million for transit security purposes.[19] Specifically, FTA will put about $18.7 million of the DOD supplemental toward its multipart security initiative.[20] As a result of these actions, FTA's expenditures on its safety and security activities has increased significantly in recent years. As figure 8 shows, if FTA receives the amount of funding it requested for fiscal year 2003, FTA's

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[19]Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act 2002 (P.L. 107-117, H.R. Conference Report 107-350). The DOD supplemental also provided $39.1 million to the Washington Metropolitan Area Transit Authority for region-wide security requirements, including $5 million for protective clothing and breathing apparatus, $2.2 million for completion of the fiber optic network project, $15 million for a chemical emergency sensor program, and $16.9 million for increased employee and facility security. On August 2, 2002, the President signed into law the 2002 Supplemental Appropriations Act for Further Recovery from and Response to Terrorist Attacks on the United States (P.L.107-206, H.R. 4775), which set aside $15 million for grants to enhance security for intercity bus operations.

[20]The remaining $4.8 million of the DOD supplemental was dedicated to the replacement of buses and kiosks in New York destroyed in the terrorist attacks.

expenditures on safety and security activities will more than double since fiscal year 2000—increasing from $8.1 million to $17.9 million.[21]

Figure 8: FTA's Expenditures on Safety and Security Activities, 2000-2003
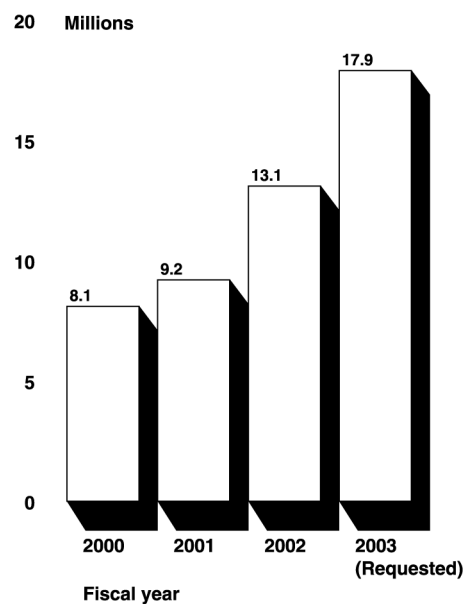
Source: GAO's analysis of FTA budget data.

Note: Data include actual and planned expenditures on program activities and oversight. It does not include funding for grant programs.

TSA's Role in Transit Security Is Evolving

TSA is responsible for the security of all modes of transportation, including transit. The Aviation and Transportation Security Act created TSA within the Department of Transportation and defined its primary responsibility as ensuring security in all modes of transportation.[22] The act also gives TSA regulatory authority over transit security, which FTA does not possess. Since its creation last November, TSA has primarily focused on improving aviation security in order to meet the deadlines established in the Aviation and Transportation Security

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[21]Budget data include FTA's actual and planned expenditures on program activities and oversight. It does not include funding for grant programs.

[22]P.L. No. 107-71, 115 Stat. 597 (2001).

Act. As a result, TSA has not yet exerted full responsibility for security in other modes of transportation, such as transit.

TSA's role in transit security is evolving. For transit security, the Aviation and Transportation Security Act does not specify TSA's role and responsibilities as it did for aviation security.[23] For example, the act does not set deadlines for TSA to implement certain transit security requirements. Similarly, although the President's National Strategy for Homeland Security states that the federal government will work with the private sector to upgrade security in all modes of transportation and utilize existing modal relationships and systems to implement unified, national standards for transportation security, it does not outline TSA's or the Department of Homeland Security's role in transit security.[24] TSA will be transferred to the new Department of Homeland Security as part of the recently passed Homeland Security Act (HR 5005).

To define its roles and responsibilities in transit security, TSA is currently working with FTA to develop a memorandum of agreement.[25] According to FTA and TSA officials, the memorandum of agreement will define the roles and responsibilities of each agency as they relate to transit security and address a variety of issues, including separating safety and security activities, establishing national standards, interfacing with transit agencies, and establishing funding priorities. For example, TSA officials said they expect to mandate a set of national standards for transit security. Consequently, the memorandum of agreement would articulate the roles and responsibilities of TSA and FTA in establishing these standards.

TSA and FTA have not finalized the timetable for issuing the memorandum of agreement. TSA and FTA officials originally planned to issue the memorandum of agreement in September 2002. However, according to FTA officials, the issuance was delayed so that the memorandum could incorporate and reflect the administration's fiscal year 2004 budget request. According to TSA officials, FTA and TSA would like to issue the

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[23]For more information on TSA's role in aviation security, see U.S. General Accounting Office, *Aviation Security: Transportation Security Administration Faces Immediate and Long-Term Challenges*, GAO-02-971T(Washington, D.C.: July 25, 2002).

[24]The strategy states that the Department of Homeland Security will coordinate closely with the Department of Transportation, which will remain responsible for transportation safety.

[25]TSA is developing memorandums of agreement with all modal administrations in the Department of Transportation.

memorandum of agreement by January 2003. Although TSA and FTA are informally coordinating transit security issues, the memorandum of agreement will formalize their relationship, help prevent duplication of effort, and help TSA manage the shared responsibilities involved in securing the nation's transportation system.

Transit Agencies Said the Federal Government Should Provide More Information and Assistance

The transit agencies we visited were generally pleased with the assistance FTA has provided since September 11. Officials from these agencies added, however, that the federal government could do more in helping them secure their transit systems. They suggested, for example, that the federal government provide additional information on a number of issues, invest more in security-related research and development, help obtain security clearances, and supply increased funding for security improvements.

Officials from the transit agencies we visited reported a need for the federal government to disseminate additional information on topics ranging from available federal grants to appropriate security levels for individual agencies. A recurring theme was for the federal government to establish a clearinghouse or similar mechanism that maintains and disseminates this type of information. Specifically, officials expressed a need for the federal government to provide additional information on the following topics:

- **Intelligence**: Transit officials from a number of agencies stated that the federal government should provide additional information on threats to their transit agencies or cities. Officials also commented that "real time" information on attacks against other transit agencies would be useful.

- **Best practices**: A number of officials said that information on transit security best practices would be beneficial. According to FTA officials, the assessments of the 36 transit agencies are helping them identify best practices.

- **Federal grants**: Officials from several transit agencies suggested that information on available grants that can be used for transit safety and security improvements would be useful, noting that locating these grants is challenging and time consuming. For example, an assistant general manager stated that she spends too much of her time searching the Internet for grants available for transit.

- **Level of security**: Transit officials from a few agencies told us that it would be helpful for the federal government to provide information on

the appropriate level of security for their agencies. For example, officials at one agency questioned whether they needed to continue to post guards—24 hours a day, 7 days a week—at the entrance and exit of their tunnel, a practice instituted when the Department of Transportation issued a threat advisory to the transit industry in May 2002. Similarly, our survey results indicate that determining the appropriate level of security is a challenge for transit agencies.

- **Cutting-edge technology**: Officials from a number of agencies said that the federal government should provide information on the latest security technologies. For example, officials from one agency said that such information is needed because they have been bombarded by vendors selling security technology since September 11; however, the officials said they were unsure about the quality of the products, whether the products were needed, or whether the products would be outdated next year.

- **Decontamination practices:** Several transit agency officials expressed a need for information on decontamination protocols. For example, one agency official noted that information is needed on how to determine if the system is "clean" after a chemical or biological attack.

According to FTA officials, FTA is developing two mechanisms to better disseminate information on intelligence, best practices, and security-related issues to transit agencies. First, FTA is launching a new secure Web site to post best practices and allow for the exchange of security-related information. In September 2002, FTA invited 100 transit agencies to register to use this Web site, which utilizes the Federal Bureau of Investigation (FBI) secure Web site technology called Infragard. Second, FTA is funding the transit Information Sharing and Analysis Center, which will disseminate intelligence information to transit agencies. The Center will initially be available for the largest 50 agencies. The schedules for launching or expanding the Center to other transit agencies have not been established.

Officials from several of the agencies we met with also said that the federal government should be investing more in security-related research and development. Agency officials noted that individual transit agencies do not have the resources to devote to research and development. Moreover, the officials said this is an appropriate role for the federal government, since the products of research and development endeavors should benefit the entire transit community, not just individual agencies. FTA's Office of Technology is currently the agency's focal point for research and

development and is responsible for identifying and supporting technological innovations, including safety and security innovations. According to FTA documents, the Office of Technology's obligations for safety and security technologies have increased from $680,000 in fiscal year 2000 to an estimated $1.1 million in fiscal year 2002. FTA's fiscal year 2003 budget request includes about $4.2 million for the Office of Technology's safety and security technologies, representing a 272-percent increase from fiscal year 2002. FTA is also conducting 13 research projects on a variety of security-related issues, such as updating its guide for security planning, developing material for a security awareness campaign, and working on decontamination procedures for public transportation.

A number of transit officials also expressed a need for the federal government to help them obtain security clearances. As we have reported in our previous work on homeland security, state and local officials have characterized their lack of security clearances as a barrier to obtaining critical intelligence information.[26] The inability to receive any classified threat information could hamper transit agencies' emergency preparedness capability as it apparently did at one of the transit agencies we visited. In this agency's city, a bomb threat was made against a major building, but because the transit agency officials did not have the necessary security clearances, the FBI did not inform them of this threat until about 40 minutes before the agency was asked to help evacuate the building. According to transit agency officials, the lack of advance notice negatively affected their agency's ability to respond, even though, in this case, the threat was not carried out. Proposed legislation (H.R. 3483) provides that the Attorney General expeditiously grant security clearances to governors who apply for them and to state and local officials who participate in federal counterterrorism working groups or regional task forces. FTA has offered to help transit agencies join their local FBI Joint Terrorism Task Force to better access intelligence information, but it has not made

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[26]U.S. General Accounting Office, *Port Security: Nation Faces Formidable Challenges in Making New Initiatives Successful,* GAO-02-993T (Washington, D.C.: Aug. 5, 2002); and U.S. General Accounting Office, *Homeland Security: Progress Made; More Direction and Partnership Sought,* GAO-02-490T (Washington, D.C.: Mar. 12, 2002).

assisting transit agencies with security clearances part of their security activities.[27]

Officials from the transit agencies we visited also said that additional federal funding is needed. As noted earlier, many of the transit agencies we visited are experiencing tightened budgets, which make it more difficult for them to fund safety and security needs. Moreover, according to our survey results, insufficient funding is the most significant obstacle agencies face in trying to make their systems more safe and secure. The Congress has already made additional funding available for transit security purposes— about $23.5 million through the fiscal year 2002 DOD supplemental. FTA's fiscal year 2003 budget request also includes $17.9 million for safety and security expenditures.

Critical Decisions Remain about the Federal Government's Role in Funding Transit Security Improvements

Important funding decisions for transit safety and security initiatives remain. Due to the expense of security enhancements and transit agencies' tight budget environments, the federal government is likely to be viewed as a source of funding for at least some of these enhancements. These improvements join the growing list of security initiatives competing for federal assistance. Based on our past work on homeland security issues, site visits to transit agencies, and survey results, we believe that several issues will need to be addressed when the federal government's role in funding transit safety and security initiatives is considered. These issues include (1) determining the roles of stakeholders in funding transit security, (2) developing an approach to distribute federal funds, (3) establishing goals and performance indicators for the federal government's efforts, and (4) selecting the appropriate federal policy instrument to deliver assistance.

The roles and responsibilities of stakeholders in funding transit safety and security need to be determined. Since all levels of government and the private sector are concerned about transit safety and security, determining who should finance security activities may be difficult. Some of the benefits of transit systems, such as employment and reduced congestion, remain within the locality or region. In addition, private companies that

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[27]According to the Department of Transportation, the Aviation and Transportation Security Act gives TSA the authority to disclose sensitive security information to approved officials from federal, state, and local governments and the private sector on a "need to know" basis, even if the officials do not have clearances.

own transit systems could directly benefit from security measures because steps designed to thwart terrorists could also prevent others from stealing goods or causing other kinds of economic damage. Given the importance of transit to our nation's economic infrastructure, some have argued that the federal government should help pay for protective measures for transit. Transit officials we spoke with said that the federal government should provide additional funding for security needs. Fifty-nine percent of transit agencies in large- and small-urbanized areas responding to our survey said they plan to use federal funds to pay for their top three security priorities. Additionally, TSA and FTA officials said they would seek additional resources for transit security.[28] The current authorizing legislation for federal surface transportation programs, TEA-21, expires on September 30, 2003. The reauthorization of TEA-21 provides an opportunity to examine stakeholders' roles and responsibilities for transit security, including federal funding responsibilities.

Since requests for funding transit security improvements will likely exceed available resources, an approach for distributing the federal dollars is needed. Transit agency officials we met with identified a number of possible federal funding criteria, including ridership levels, the population of the city the transit agency serves, identified vulnerabilities of the agency, the potential for mass casualties, and assets of the agency (e.g., tunnels and bridges). In general, the transit agency officials we spoke with believed the federal government should direct its dollars to agencies that are most at risk or most vulnerable to a terrorist attack—a criterion consistent with a risk management approach. A risk management approach is a systematic process to analyze threats, vulnerabilities, and the criticality (or relative importance) of assets to better support key decisions linking resources with prioritized efforts for results. Figure 9 illustrates that the highest risks and priorities emerge where the three parts of a risk management approach overlap. For example, transit infrastructure that is determined to be a critical asset, vulnerable to attack, and a likely target would be at most risk and therefore would be a higher priority for funding compared with infrastructure that was only vulnerable to attack.

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[28]TSA will be transferred to the new Department of Homeland Security as part of the recently enacted Homeland Security Act (HR 5005).

Figure 9: Diagram of a Risk Management Approach
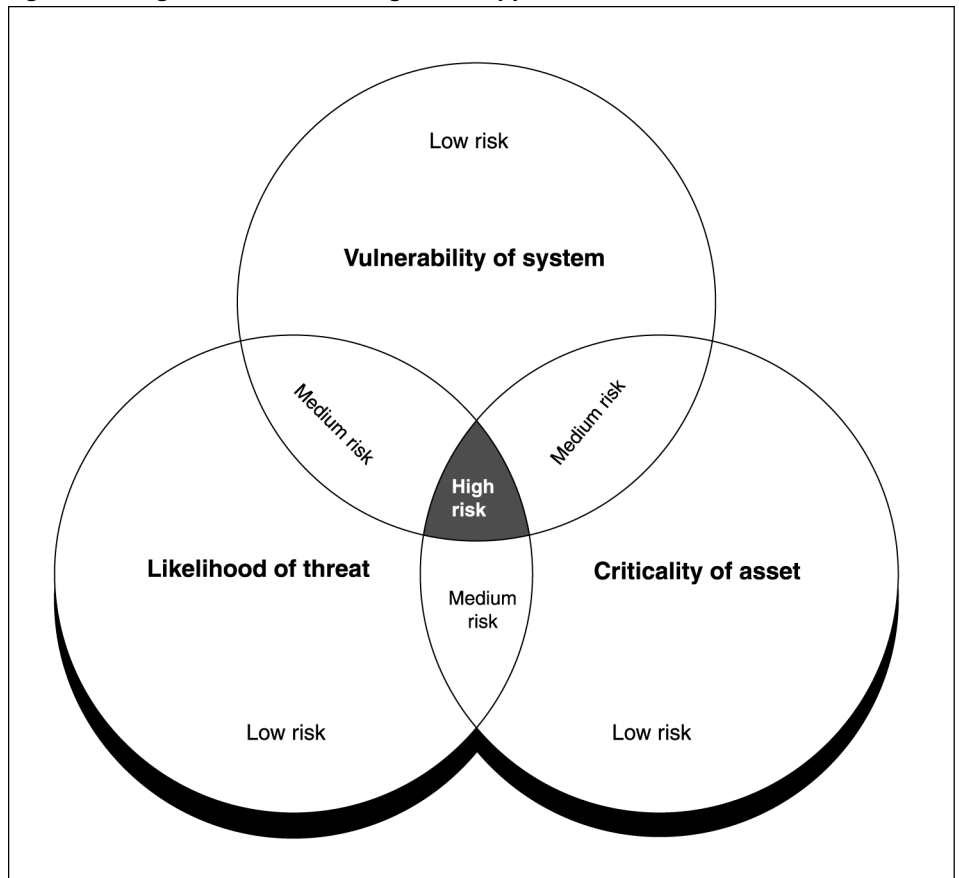
Source: GAO presentation.

We have advocated using a risk management approach to guide federal programs and responses to better prepare against terrorism and other threats and to better direct finite national resources to areas of highest

priority.[29] FTA and TSA have not developed funding criteria or an approach to distribute funding for transit security. However, the agencies have the needed information to apply a risk management approach. For example, FTA obtains threat information from a variety of sources, including the FBI, and is in the process of identifying the most critical transit infrastructure. In addition, FTA has vulnerability information from the security assessments it recently performed. Moreover, according to TSA officials, TSA used a risk management approach to recently distribute grants to seaports and is researching best practices for using risk management assessments.

In addition to a funding approach, goals and performance indicators need to be established to guide the federal government's efforts in transit security. These critical components can influence all decisions—from launching new initiatives to allocating resources—as well as measure progress and ensure accountability. The Congress has long recognized the need to objectively assess the results of federal programs, passing the Government Performance and Results Act of 1993 (commonly referred to as the Results Act). The Results Act required agencies to set strategic and annual goals, measure performance, and report on the degree to which goals are met. However, goals or outcomes of where the nation should be in terms of transit security or other national security programs have yet to be defined. For example, as we reported this summer, the National Strategy for Homeland Security does not establish a baseline set of performance goals and measures for assessing and improving preparedness.[30] Moreover, the goals and measures for transit safety and security in the Department of Transportation's current strategic plan were developed before September 11 and focus more on safety and crime than on terrorism. Consequently, they do not reflect today's realities or the changing role of the federal government in transit security. Given the recent and proposed increases in security funding, such as the DOD supplemental that provided about $23.5 million for transit security, as well as the need for real and meaningful improvements in preparedness, establishing clear goals is critical to ensuring both a successful and a fiscally responsible effort. Moreover,

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[29]U.S. General Accounting Office, *Homeland Security: A Risk Management Approach Can Guide Preparedness Efforts*, GAO-02-208T (Washington, D.C.: October 31, 2001); and U.S. General Accounting Office, *Combating Terrorism: Threat and Risk Assessments Can Help Prioritize and Target Program Investments*, GAO/NSIAD-98-74. (Washington, D.C.: Apr. 9, 1998).

[30]GAO-02-1011T.

performance indicators are needed to track progress toward these established goals.

Another important consideration is the design of policy instruments to deliver assistance. Our previous work on federal programs suggests that the choice and design of policy instruments have important consequences for performance and accountability. The federal government has a variety of policy tools, including grants, loan guarantees, regulations, tax incentives, and partnerships, to motivate or mandate state and local governments or the private sector to help address security concerns. The choice and design of policy tools can enhance the government's capacity to (1) target the areas of highest risk to better ensure that scarce federal resources address the most pressing needs, (2) promote the sharing of responsibilities among all parties, and (3) track and assess progress toward achieving national goals. Regardless of the tool selected, specific safeguards and clear accountability requirements, such as documentation of the terms and conditions of federal participation, are needed to protect federal interests.

Conclusions

Securing the nation's transit system is not a short-term or easy task. Many challenges must be overcome. FTA and the transit agencies we visited have made a good start in enhancing transit security, but more work is needed. Transit agencies' calls for increased federal funding for security needs join the list of competing claims for federal dollars and, as a result, difficult trade-offs will have to be made. Since requests for federal assistance will undoubtedly exceed available resources, criteria will be needed for determining which transit security improvements merit any additional federal funds. To ensure that finite resources are directed to the areas of highest priority, the criteria should be in line with a risk management approach. In addition to helping distribute funds, establishing a risk-based funding approach would inform congressional decision making and demonstrate to the Congress that the funds will be managed efficiently. Moreover, as the federal government's role in transit security expands—whether through additional funding or the setting of national standards by TSA—it is important that goals and performance indicators are established to guide the government's efforts in transit security.[31] These components are needed to ensure accountability and results.

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[31]TSA will be transferred to the new Department of Homeland Security as part of the recently enacted Homeland Security Act (HR 5005).

The upcoming reauthorization of the surface transportation authorizing legislation provides an opportunity to examine the role of the federal government, including its funding responsibilities, in transit security. However, transit agencies cannot wait for the new authorizing legislation to implement transit security improvements and are moving forward with improvements to enhance the security of their system and passengers. The federal government could assist transit agencies as they press forward with their security initiatives by allowing all transit agencies, regardless of the size of the population it serves, to use urbanized area formula funds for security-related operating expenses. Although eliminating the prohibition on urbanized area funds would not provide additional funding, it would give agencies increased flexibility in financing transit security enhancements so that they could decide, for example, to use their federal dollars to pay for additional security patrols instead of a new rail car. This additional flexibility would be especially helpful given the high costs of transit security improvements and the declining revenues of many agencies. Additionally, the Department of Transportation could help transit agency officials obtain timely intelligence information so that they can make better informed decisions about their agency's emergency planning and response. The transit Information Sharing and Analysis Center is a positive step in providing some transit agencies timely intelligence information. The Department of Transportation could take other steps as well, including helping transit agency officials obtain security clearances, to further enhance the sharing of critical intelligence information to transit agencies.

Recommendations for Executive Action

To provide transit agencies greater flexibility in paying for transit security improvements, we recommend that the Secretary of Transportation consider seeking a legislative change to allow all transit agencies, regardless of the size of the urbanized area they serve, to use federal urbanized area formula funds for security-related operating expenses. To discourage the replacement of state and local funds with federal funds, any legislative change should include a requirement that transit agencies maintain their level of previous funding.

To help transit agencies enhance transit security, to guide federal dollars to the highest priority, and to ensure accountability and results of the federal government's efforts in transit security, we also recommend that the Secretary of Transportation take the following actions:

- Develop and implement strategies to help transit agency officials obtain timely intelligence information, including helping transit agency officials obtain security clearances.

- Develop clear, concise, transparent criteria for distributing federal funds to transit agencies for security improvements. The criteria should correspond to a risk management approach so that federal dollars are directed to the areas of highest priority.

- Establish goals and performance indicators for the department's transit security efforts in order to promote accountability and ensure results.

Agency Comments

We provided the Department of Transportation with a draft of this report for review and comment. Department of Transportation officials, including the Deputy Administrator of the Federal Transit Administration, provided oral comments on the draft on November 22, 2002. The officials generally concurred with the report's findings and conclusions. Moreover, they stated that the Department of Transportation will carefully consider our recommendations as it continues working to improve transit security. The officials also provided two minor clarifications on TSA's authority over transit security and the expected issuance date of the memorandum of agreement between TSA and FTA, which we incorporated into the report.

We conducted our review from May through October 2002 in accordance with generally accepted government auditing standards.

As we agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. We will then send copies of this report to the Secretary of Transportation, the Administrator of the Federal Transit Administration, the Director of the Office of Management and Budget, and interested congressional committees. We will make copies available to others upon request. In addition, this report will be available at no charge on our Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me on (202) 512-2834. Individuals making key contributions to this report are listed in appendix IV.

Peter Guerrero
Director, Physical Infrastructure Issues

GAO's Survey Instrument and Overall Results

This appendix presents our survey instrument and overall results. Unless otherwise noted, we report the number of respondents for each question and the weighted percentage of respondents who selected each answer for each question.

United States General Accounting Office

G A O
Accountability * Integrity * Reliability

Survey of Transit Safety and Security

Introduction

The U.S. General Accounting Office, an agency of Congress, has been asked to examine transit safety and security in the United States. As part of our review, we are surveying a representative sample of transit agencies as well as conducting site visits at selected agencies.

Results from this survey will help inform Congress about transit agencies' safety and security efforts, challenges agencies face in making their systems as safe and secure as possible, and funding needs. This information will be critical as Congress considers the reauthorization of the Transportation Equity Act for the 21st Century. We are collecting data solely for statistical purposes, and our report will present results in summary form.

The questionnaire should be completed by the person(s) most knowledgeable about your transit property's safety and security activities and needs. Please complete and mail your questionnaire by July 25, 2002. A pre-addressed postage-paid return envelope has been included.

If you have any questions, please contact Karin Bolwahnn in Washington, D.C., at (202) 512-8515 or bolwahnnk@gao.gov or Michelle Dresben in Los Angeles at (213) 830-1039 or dresbenm@gao.gov.

Should the enclosed envelope be misplaced, please mail the questionnaire to:

U.S. General Accounting Office
Attn: Michelle Dresben
350 South Figueroa Street, Suite 1010
Los Angeles, CA 90071

We recognize that there are great demands on your time; however, your cooperation is critical to our ability to provide current and complete information to Congress.

Thank you in advance for your cooperation.

Instructions

This questionnaire asks for information about your transit property's safety and security activities.

Please use the following definitions for terms used throughout this questionnaire.

Acts of extreme violence: Sabotage; the use of bombs, chemical or biological agents, or nuclear or radiological materials; or armed assault with firearms or other weapons by a terrorist or another actor that causes or may cause substantial damage or injury to persons or property in any manner.

Emergency plan: Document that details an organization's operating procedures, including the responsibilities of professionals for any event, human-caused or natural, that requires responsive action to protect life or property.

Transit property: Also known as a transit agency, transit system, or transit authority. Includes all transit assets such as facilities, stations, and rolling stock.

Total number of unlinked passenger trips: The number of passengers who board public transportation vehicles. Passengers are counted each time they board a vehicle no matter how many vehicles they use to travel from their origin to their destination.

2

Section: Transit Property Characteristics

1. What transit services does your agency provide?
    (Check all that apply.) **N=146**

    1. **[5%]** Subway
    2. **[11%]** Rail other than subway (e.g., commuter or light rail)
    3. **[90%]** Bus
    4. **[3%]** Ferryboat
    5. **[62%]** Customized Community Transport (e.g., demand response or paratransit)
    6. **[10%]** Other- Please specify: _____

2. Please provide the total number of unlinked passenger trips your transit property provided (for all modes) in FY 2000 and FY 2001. *(Enter number of trips. See definition of "total number of unlinked passenger trips" on page 1.)*

    FY 2000 *(Oct. 1, 1999 - Sept. 30, 2000)*: **N= 141**

    0-999,999: 45%

    1,000,000-9,999,999: 38%

    10,000,000-99,999,999: 13%

    100,000,000 and above: 5%

    _____trips

    FY 2001 *(Oct. 1, 2000 - Sept. 30, 2001)*: **N= 140**

    0-999,999: 44%

    1,000,000-9,999,999: 38%

    10,000,000-99,999,999: 14%

    100,000,000 and above: 4%

    _____**trips**

3. Who provides security for your transit property? *(Check all that apply.)* **N=146**

    1. **[8%]** Transit police department (i.e., sworn officers)
    2. **[34%]** Established agreement/understanding with local or state police (beyond routine city services)
    3. **[35%]** Contract with security service (i.e., nonsworn officers)
    4. **[19%]** Other - Please describe: _____

    ----
    5. **[33%] No security personnel**

    3

Section: Transit Properties and Acts of Extreme Violence

4. Which of the following, if any, has <u>your transit property</u> experienced in the past 5 years? *(Check all that apply.)* **N=146**

    1. **[22%]** Reported bomb threat on transit property
    2. **[19%]** Reported chemical or biological substance on transit property
    3. **[4%]** Explosive device on transit property
    4. **[2%]** Chemical or biological substance on transit property
    5. **[1%]** Nuclear device on transit property
    6. **[1%]** Detonation of explosive on transit property
    7. **[5%]** Vehicle hijacking
    8. **[7%]** Attempted or actual sabotage by employee or nonemployee
    9. **[1%]** Breach of essential computer system
    10. **[2%]** Shooting with multiple victims on transit property
    11. **[8%]** Other - Please specify: _____

    ----
    12. **[66%] Experienced none of the above**

5. In your opinion, what is the likelihood of an act of extreme violence occurring on <u>*your* transit property</u> in the next 5 years? *(Check one. See definition of "acts of extreme violence" on page 1.)* **N=145**

    1. **[2%]** Very likely
    2. **[5%]** Likely
    3. **[31%]** As likely as not
    4. **[37%]** Unlikely
    5. **[25%]** Very unlikely

6. Which of the following assessments of safety and security, if any, has been carried out for <u>your transit property</u> during the last 5 years? *(Check all that apply.)* **N=146**

    1. **[23%]** Assessment of transit system's vulnerabilities to an act of extreme violence
    2. **[19%]** Assessment of system's ability to sustain operations during an act of extreme violence
    3. **[21%]** Assessment of threat of extreme violence to key transit infrastructure (i.e. stations, power stations, bridges, tunnels, control centers, vehicles)
    4. **[66%]** Assessment of safety and security but not specifically for acts of extreme violence
    5. **[5%]** Other - Please specify: _____

    ----
    6. **[25%] Have not assessed safety and security**   *Please skip to Question 9.*

4

7. Have the safety and security assessments identified items needing action? *(Check one.)* **N=107**

    1. **[77%]** Yes   *Continue.*
    2. **[23%]** No   *Skip to Question 10.*

8. Which of the following factors, if any, have limited your ability to complete or resolve action items identified by the assessment(s)? *(Check all that apply.)* **N=82***

    1. **[15%]** Lack of available technology or information on technology
    2. [**14%**] Inadequate information on terrorist threats
    3. **[53%]** Balancing security and safety priorities against other priorities
    4. **[36%]** Insufficient staff time or availability to complete
    5. **[15%]** Insufficient time since assessment
    6. **[28%]** Balancing riders' needs for accessibility with safety and security measures
    7. **[23%]** Limited staff knowledge
    8. **[10%]** Lengthy process to gain approval for action
    9. **[64%]** Insufficient funding
    10. **[6%]**   Other - Please specify: _____

    ----
    11. **[13%]** No limiting factors, all action items are completed or resolved

    *Because not all respondents answered this question, the estimates have larger sampling errors than for other questions. For this question, sampling errors are less than plus or minus 12 percent.

    **If a safety and security assessment <u>has</u> been carried out,
    skip to question 10; if not, answer question 9.**

9. For which of the following reasons has your transit property <u>not</u> yet conducted a safety and security assessment? *(Check all that apply.)* **N=37**

    1. **[*]** Do not think the transit system is at risk
    2. **[*]** Did not think the transit system was at risk in the past
    3. **[*]** Low priority given to assessments
    4. **[*]** Inadequate information on how to assess safety and security
    5. **[*]** Limited staff knowledge
    6. **[*]** Lack of staff time or availability
    7. **[*]** Insufficient funding
    8. **[*]**   Limited availability of consultants
    9. **[*]** Other - Please describe: _____

    *Because only 25 percent of respondents had not yet conducted a safety and security assessment, we cannot provide representative data for this question.

5

10. In your opinion, what is the most significant challenge in making your transit property as safe and secure as possible?   *(Check one.)* **N=142**

   1. **[1%]**   Lack of available technology or information on technology
   2. **[4%]**   Inadequate information on terrorist threats
   3. **[16%]** Balancing security and safety priorities against other priorities
   4. **[4%]**   Insufficient staff time or availability to devote to safety and security
   5. **[9%]**   Balancing riders' need for accessibility with safety and security measures
   6. **[4%]**   Limited staff knowledge
   7. **[1%]**   Lengthy process to gain approval for safety and security measures
   8. **[44%]** Insufficient funding
   9. **[12%]** Unsure about what level of security is appropriate
   10. **[2%]**   Other - Please specify: _____

   ----
   11. **[4%]**   **No challenges to making system safe and secure**

Section: Coordination with Local, State and Federal Entities

11. To what extent, if at all, have the local governments you serve incorporated your agency into their emergency plan(s)? *(Check one. See definition of "emergency plan" on page 1.)* **N=146**

   1. **[15%]** Very great extent
   2. **[21%]** Great extent
   3. **[29%]** Moderate extent
   4. **[21%]** Some extent
   5. **[8%]** Little or no extent
   6. **[6%]** No basis to judge/Don't know

12. Has your agency directly coordinated emergency planning at the **local level** (e.g., coordinated with local government emergency management agency or local law enforcement)? *(Check one.)* **N=146**

   1. **[77%]** Yes   *Continue.*

   2. **[23%]** No   *Skip to question 14.*

6

13. To what extent, if at all, has your transit property encountered the following challenges when trying to coordinate emergency planning at the **local level**, including with law enforcement?
(Check one box in each row.)

	Very great challenge (1)	Great challenge (2)	Moderate challenge (3)	Some challenge (4)	Little or no challenge (5)
Lack of information sharing (N=111)	1%	9%	22%	30%	39%
Difficulty establishing joint emergency protocol (N=111)	1%	7%	18%	26%	49%
Inadequate information to identify appropriate counterparts (N=111)	1%	2%	16%	17%	65%
Lack of interest to coordinate (N=112)	0%	4%	10%	18%	68%
Lack of time to coordinate (N=111)	1%	11%	21%	26%	42%
Disagreement on funding priorities (N=111)	1%	5%	17%	20%	57%
Limited awareness of terrorist threat to transit (N=112)	5%	10%	22%	23%	40%
Lack of coordination among various local agencies (N=111)	2%	11%	12%	24%	51%
Insufficient funding (N=110)	9%	27%	24%	15%	24%
Other - Please describe: _____ _____					

7

14. Has your agency directly coordinated emergency planning at the **state level** (e.g., coordinated with state emergency management agency or state law enforcement)? *(Check one.)* **N=146**

   1. **[16%]** Yes   *Continue.*

   2. **[84%]** No   *Skip to question 16.*

15. To what extent, if at all, has your transit property encountered the following challenges when trying to coordinate emergency planning at the **state level**, including with law enforcement? *(Check one box in each row.)*

	Very great challenge (1)	Great challenge (2)	Moderate challenge (3)	Some challenge (4)	Little or no challenge (5)
Lack of information sharing (N=21)	*	*	*	*	*
Difficulty establishing joint emergency protocol (N=22)	*	*	*	*	*
Inadequate information to identify appropriate counterparts (N=22)	*	*	*	*	*
Lack of interest to coordinate (N=22)	*	*	*	*	*
Lack of time to coordinate (N=22)	*	*	*	*	*
Disagreement on funding priorities (N=22)	*	*	*	*	*
Limited awareness of terrorist threat to transit (N=22)	*	*	*	*	*
Lack of coordination among various state agencies (N=22)	*	*	*	*	*
Insufficient funding (N=21)	*	*	*	*	*
Other - Please describe: _____ _____					

*Because most respondents had not coordinated emergency planning at the state level, we cannot provide representative data for this question.

8

16. Has your agency directly coordinated emergency planning at the **regional level** (e.g., coordinated with government entities or law enforcement agencies in your region)? *(Check one.)* **N=146**

   1. **[31%]** Yes   *Continue.*

   2. **[63%]** No   *Skip to question 18.*

   3. **[6%]** Not applicable   *Skip to question 18.*

17. To what extent, if at all, has your transit property encountered the following challenges when trying to coordinate emergency planning at the **regional level**, including with law enforcement? *(Check one box in each row.)*

	Very great challenge (1)	Great challenge (2)	Moderate challenge (3)	Some challenge (4)	Little or no challenge (5)
Lack of information sharing (N=43)	*	*	*	*	*
Difficulty establishing joint emergency protocol (N=43)	*	*	*	*	*
Inadequate information to identify appropriate counterparts (N=43)	*	*	*	*	*
Lack of interest to coordinate (N=43)	*	*	*	*	*
Lack of time to coordinate (N=43)	*	*	*	*	*
Disagreement on funding priorities (N=43)	*	*	*	*	*
Limited awareness of terrorist threat to transit (N=43)	*	*	*	*	*
Lack of coordination among various regional agencies (N=43)	*	*	*	*	*
Insufficient funding (N=43)	*	*	*	*	*
Other - Please describe: _____ _____					

*Because most respondents had not coordinated emergency planning at the regional level, we cannot provide representative data for this question.

9

18. Has your agency directly coordinated emergency planning at the **federal level** (e.g., coordinated with federal emergency management agency or federal law enforcement)? *(Check one.)* **N=146**

   1. **[13%]** Yes   *Continue.*

   2. **[87%]** No   *Skip to question 20.*

19. To what extent, if at all, has your transit property encountered the following challenges when trying to coordinate emergency planning at the **federal level**, including with law enforcement? *(Check one box in each row.)*

	Very great challenge (1)	Great challenge (2)	Moderate challenge (3)	Some challenge (4)	Little or no challenge (5)
Lack of information sharing (N=18)	*	*	*	*	*
Difficulty establishing joint emergency protocol (N=18)	*	*	*	*	*
Inadequate information to identify appropriate counterparts (N=18)	*	*	*	*	*
Lack of interest to coordinate (N=18)	*	*	*	*	*
Lack of time to coordinate (N=18)	*	*	*	*	*
Disagreement on funding priorities (N=18)	*	*	*	*	*
Limited awareness of terrorist threat to transit (N=18)	*	*	*	*	*
Lack of coordination among various federal agencies (N=17)	*	*	*	*	*
Insufficient funding (N=17)	*	*	*	*	*
Other - Please describe: _____ _____					

*Because most respondents had not coordinated emergency planning at the federal level, we cannot provide representative data for this question.

10

Section: Your Transit Property's Emergency Planning

20. Does your transit property have an emergency plan(s) or emergency operating procedures?
(Check one. See definition of "emergency plan" on page 1.) **N=146**

   1. **[66%]** Yes   *Continue.*

   2. **[34%]** No   *Skip to Question 26.*

21. Which of the following situations does your transit property's emergency plan(s) specifically
address? *(Check all that apply.)* **N=96***

   1. **[27 %]** Hostage barricade situation
   2. **[16%]** Control center defense
   3. **[75%]** Reported bomb threat on transit property
   4. **[53%]** Reported chemical or biological substance on transit property
   5. **[61%]** Explosive device on transit property
   6. **[38%]** Chemical or biological substance on transit property
   7. **[11%]** Nuclear device on transit property
   8. **[23%]** Detonation of explosive on transit property
   9. **[46%]** Vehicle hijacking
   10. **[23%]** Attempted or actual sabotage by employee or nonemployee
   11. **[16%]** Breach of essential computer system
   12. **[25%]** Shooting with multiple victims on transit property
   13. **[85%]** Natural disaster
   14. **[13%]** Other - Please describe: _____

**Because not all respondents answered this question, the estimates have larger sampling errors than for other
questions. For this question, sampling errors are less than plus or minus 11 percent.*

22. About what proportion of your agency's personnel have received formal training, such as in-class
training, on the emergency plan? *(Check one box in each row.)*

	All have received formal training (1)	Most have received formal training (2)	Some have received formal training (3)	Few or none have received formal training (4)	Not applicable (5)
a. Security/safety personnel (N=96)*	**26%**	**21%**	**15%**	**18%**	**19%**
b. All other personnel (N=95)*	**7%**	**17%**	**34%**	**38%**	**3%**

**Because not all respondents answered this question, the estimates have larger sampling errors than for other
questions. For this question, sampling errors are less than plus or minus 11 percent.*

11

23. In general, about how often do agency personnel receive refresher training or updates on new procedures concerning your emergency plan? *(Check one box in each row.)*

	Every 2 years (1)	Annually (2)	Semi-annually (3)	On as-needed basis (4)	Never (5)	Not applicable (6)
a. Security/safety personnel (N=96)	2%	20%	3%	49%	7%	18%
b. All other personnel (N=95)	3%	16%	2%	61%	10%	9%

24. Does your transit property's emergency plan specify coordination with any of the following agencies?
(Check all that apply.)   **N=96***

1. **[91%]** Local police departments
2. **[88%]** Local fire/emergency medical service
3. **[74%]** Local government (e.g., mayor's or city administrator's office)
4. **[42%]** Local hospitals
5. **[22%]** Local support/charity services
6. **[36%]** Other transit agencies
7. **[38%]** Other local transportation providers
8. **[21%]** State law enforcement
9. **[59%]** State/local emergency management agencies
10. **[28%]** State/local environmental protection agencies
11. **[17%]** Federal law enforcement (e.g., FBI)
12. **[20%]** Federal emergency management agencies
13. **[28%]** Federal transportation agencies (e.g., Federal Railroad Administration, Federal Transit Administration)
14. **[47%]** Media
15. **[5%]** Other - Please describe: _____

_____

----
16. **[5%]** As of this date, have not specified coordination with other agencies

*Because not all respondents answered this question, the estimates have larger sampling errors than for other questions. For this question, sampling errors are less than plus or minus 11 percent.

12

25. Have you shared your transit property's emergency plans with any of the following entities?
(Check all that apply.)   **N=96**

1. **[51%]** Local police departments
2. **[54%]** Local fire/emergency medical service
3. **[47%]** Local government (e.g., mayor's or city administrator's office)
4. **[13%]** Local hospitals
5. **[6%]** Local support/charity services
6. **[25%]** Other transit agencies
7. **[14%]** Other local transportation providers
8. **[9%]** State law enforcement
9. **[29%]** State/local emergency management agencies
10. **[12%]** State/local environmental protection agencies
11. **[7%]** Federal law enforcement (e.g., FBI)
12. **[9%]** Federal emergency management agencies
13. **[24%]** Federal transportation agencies (e.g., Federal Railroad Administration, Federal Transit
      Administration)
14. **[5%]** Media
15. **[8%]** Other - Please describe: _____

     _____
----
16. **[23%]** As of this date, have not shared plans with any other entities

If your transit property has an emergency plan, skip to question 27; if not, answer question 26.

26. For which of the following reasons has your transit property <u>not</u> yet developed an emergency
plan?
   (Check all that apply.) **N=50***

1. **[22%]** Do not think the transit system is at risk
2. **[52%]** Did not think transit system was at risk in the past
3. **[16%]** Low priority given to emergency planning
4. **[36%]** Inadequate information on how to do an
      emergency plan
5. **[46%]** Limited staff knowledge
6. **[57%]** Lack of staff time or availability
7. **[43%]** Insufficient funding
8. **[2%]** Limited availability of consultants
9. **[30%]** Transit agency covered by local government plan
10. **[10%]** Other - Please describe: _____

**Because not all respondents answered this question, the estimates for this question have larger sampling
errors than for other questions. For this question, sampling errors are less than plus or minus 15
percent.*

13

Section: Funding Sources for Safety and Security Activities

27. Is your transit property allowed to use Federal Transit Administration (FTA) funds for operations?
    (Check one.) **N=145**

    1. **[68%]** Yes
    2. **[32%]** No

28. Please indicate the cycle of your agency's fiscal year. *(Check one.)* **N=146**

    1. **[26%]** January 1 to December 31
    2. **[2%]** April 1 to March 31
    3. **[49%]** July 1 to June 30
    4. **[20%]** October 1 to September 30
    5. **[3%]** Other - Specify: _____/_____   to _____/_____
                                          (MM/DD)   (MM/DD)

14

29. Please provide the following information about your **total** **operating** expenses and **total**
operating funds spent on safety and security activities (e.g., administrative costs and
personnel). (*Round amount to the nearest dollar. If an estimate is provided, please check box.*)

Fiscal Year	Total **operating expenses**	Total **operating funds** spent on safety and security activities
1999	N=123 $ 0-1,000,000: 15% $1,000,000-10,000,000: 52% $10,000,000-25,000,000: 15% $25,000,000-100,000,000: 10% $100,000,000-1,000,000,000: 7% $1,000,000,000 and above: 1% [22%] Estimate	N=121 $ * [40%] Estimate
2000	N=128 $ 0-1,000,000: 15% $1,000,000-10,000,000: 51% $10,000,000-25,000,000: 15% $25,000,000-100,000,000: 11% $100,000,000-1,000,000,000: 7% $1,000,000,000 and above: 1% [22%] Estimate	N=122 $ * [40%] Estimate
2001	N=130 $ 0-1,000,000: 13% $1,000,000-10,000,000: 52% $10,000,000-25,000,000: 14% $25,000,000-100,000,000: 13% $100,000,000-1,000,000,000: 7% $1,000,000,000 and above: 2% [21%] Estimate	N=124 $ * [40%] Estimate
2002	N=128 $ * [70%] Estimate	N=126 $ * [65%] Estimate
2003 (projected)	N=120 $ * [79%] Estimate	N=120 $ * [73%] Estimate

*Because 40 percent or more of respondents were only able to provide estimates, we are unable to present reliable
data for these questions. In addition, subsequent analyses raised other questions about data reliability.*

15

30. What sources does your transit agency use to fund **your safety and security <u>operating</u> expenses**? *(Check all that apply.)* **N=146**

    1. **[40%]** FTA funds
    2. **[1%]** Other federal funds (i.e., non-FTA funds)
    3. **[48%]** State funds
    4. **[70%]** Local funds
    5. **[41%]** Other (e.g., fare box revenue, loans) - Specify: _____

31. What FTA programs, if any, does your transit property currently use to fund safety and security **<u>operating</u>** expenses? *(Check all that apply.)* **N=144**

    1. **[62%] Do not use FTA programs for safety and security operating expenses**

    ----

    2. **[32%]** Urbanized Area Formula Program
    3. **[6%]** Nonurbanized Area Formula Program
    4. **[1%]** Elderly and Persons with Disabilities Program
    5. **[0%]** Clean Fuels Formula Program
    6. **[0%]** Over the Road Bus Accessibility Program
    7. **[0%]** Alaska Railroad Program
    8. **[2%]** Bus and Bus-Related Program
    9. **[0%]** Fixed Guideway Modernization Program
    10. **[1%]** New Starts Program
    11. **[5%]** Job Access and Reverse Commute Program
    12. **[2%]** Metropolitan Planning Program
    13. **[0%]** State Planning and Research Program
    14. **[0%]** National Planning and Research Program
    15. **[4%]** Rural Transit Assistance Program
    16. **[1%]** Other - Please describe: _____

16

32. Please provide the following information about your **total <u>capital</u> expenses** <u>and</u> **total capital funds spent on safety and security activities** (e.g., surveillance equipment and fencing). (*Round amount to the nearest dollar. If an estimate is provided, please check box.*)

Fiscal Year	Total **capital expenses**	Total **capital funds** spent on safety and security activities
1999	N=109 $ 0-100,000: 25% $100,000-1,000,000: 28% $1,000,000-10,000,000: 32% $10,000,000-100,000,000: 8% $100,000,000-1,000,000,000: 5% $1,000,000,000 and above: 1% [19%] Estimate	N=113 $ ___ * [27%]Estimate
2000	N=114 $ 0-100,000: 25% $100,000-1,000,000: 29% $1,000,000-10,000,000: 27% $10,000,000-100,000,000: 12% $100,000,000-1,000,000,000: 6% $1,000,000,000 and above: 1% [16%] Estimate	N=117 $ ___ * [28%] Estimate
2001	N=115 $ 0-100,000: 25% $100,000-1,000,000: 27% $1,000,000-10,000,000: 31% $10,000,000-100,000,000: 10% $100,000,000-1,000,000,000: 6% $1,000,000,000 and above: 1% [16%] Estimate	N=117 $ ___ * [30%] Estimate
2002	N=112 $ _* [56%] Estimate	N=115 $ ___ * [43%]Estimate
2003 (projected)	N=108 $ _* [73%] Estimate	N=111 $ ___ * [54%]Estimate

Because about 30 percent or more of respondents were only able to provide estimates, we are unable to provide reliable data for these questions. In addition, subsequent analyses raised questions about data reliability.

17

33. What sources does your transit agency use to fund **your safety and security <u>capital</u> expenses**? **N=143**

  1. **[63%]** FTA funds
  2. **[7%]** Other federal funds (i.e., non-FTA funds)
  3. **[40%]** State funds
  4. **[51%]** Local funds
  5. **[15%]** Other (e.g., fare box revenue, loans) - Specify: _____

18

34 What FTA programs, if any, does your transit property currently use to fund safety
and security **capital** expenses? *(Check all that apply.)* **N=144**

   1. **[39%] Do not use FTA programs for safety and security capital expenses**

   ----

   2. **[53%]** Urbanized Area Formula Program
   3. **[4%]** Nonurbanized Area Formula Program
   4. **[1%]** Elderly and Persons with Disabilities Program
   5. **[0%]** Clean Fuels Formula Program
   6. **[0%]** Over the Road Bus Accessibility Program
   7. **[0%]** Alaska Railroad Program
   8. **[11%]** Bus and Bus-Related Program
   9. **[5%]** Fixed Guideway Modernization Program
   10. **[4%]** New Starts Program
   11. **[1%]** Job Access and Reverse Commute Program
   12. **[2%]** Metropolitan Planning Program
   13. **[0%]** State Planning and Research Program
   14. **[0%]** National Planning and Research Program
   15. **[3%]** Rural Transit Assistance Program
   16. **[5%]** Other - Please describe: _____

35. Has your transit property identified funding needed for safety and security projects in the near
future? *(Check one.)* **N=146**

   1. **[51%]** Yes   *Continue.*

   2. **[49%]** No   *Skip to Question 37.*

36. What is the estimated total dollar amount of these identified needs over the next 3 years? **N=73**

   $ *   or **[41%]** Do not know**

**Because about 40 percent of the respondents could not estimate a total dollar amount for their identified needs,
we cannot provide representative data for this question.*

***Because not all respondents answered this question, the estimates have larger sampling errors than for other
questions. For this question, sampling errors are less than plus or minus 12 percent.*

19

37. Currently, how much of a <u>funding priority</u> is each of the following safety and security needs?
(Check one box in each row.)

		Very high (1)	Somewhat high (2)	Neither high nor low (3)	Somewhat low (4)	Very low (5)	Not Applicable or Not sure (6)
a.	Enhanced communication system(s) (e.g., 2-way radios) **N=146**	35	29	16	4	9	8
b.	Surveillance equipment **N=145**	29	37	11	8	11	4
c.	Chemical, biological, or radiological detection systems **N=144**	4	4	11	15	47	19
d.	Clear, impact-resistant sheeting for transit vehicle windows **N=145**	0	7	18	21	36	18
e.	Trespasser intrusion detection systems for tunnel environments **N=145**	4	2	3	4	12	76
f.	Application of Crime Prevention Through Environmental Design (CPTED) engineering concepts into new facilities and retrofitting existing facilities **N=145**	7	19	21	5	14	34
g.	Additional fencing **N=145**	13	24	21	4	23	15
h.	Additional lighting **N=145**	17	32	21	5	13	12
i.	Security system or security card entrance system at facilities **N=145**	24	31	15	8	14	8
j.	Employee and vendor/contractor identification cards **N=145**	23	20	23	8	19	8
k.	Disposable gas masks/respirators for employees **N=145**	1	5	18	14	45	16
l.	Auxiliary operations control centers in the event of emergency **N=144**	10	16	16	15	26	17
m.	Emergency generator **N=145**	17	20	25	8	16	14
n.	Additional or enhanced training **N=145**	26	37	23	6	3	5
o.	Emergency drills **N=145**	23	30	25	10	7	5
p.	Additional personnel **N=145**	10	18	30	11	19	12
q.	K-9 dogs trained to detect bombs or other devices **N=145**	3	4	5	4	43	40
r.	Development of emergency plans **N=145**	26	29	22	7	5	10
s.	Assessing vulnerabilities **N=145**	28	33	21	7	6	6
t.	Back-up computer system **N=145**	14	20	32	3	17	15
u.	Regional crime mapping **N=144**	1	4	20	11	31	33
v.	Other - Please describe:						
	Other - Please describe:						

20

38. If you had to select three of the above safety and security needs as your **top funding priorities**, which three would they be? *(Please enter the letter designation, a through x, of the need from question 37.)*

 1st priority: <u>A (31%)</u> <u>(N=142)</u>

 2nd priority: <u>B (16%)</u>   <u>(N=142)</u>

 3rd priority: <u>N (17%)</u>   <u>(N=141)</u>

39. What is the approximate total dollar amount of the top three safety and security funding priorities that you indicated above?

 1st priority: <u>$ *   </u> or   **[47%]** Do not know   **(N=140)**

 2nd priority: <u>$ *   </u> or   **[53%]** Do not know   **(N=142)**

 3rd priority: <u>$ *   </u> or   **[55%]** Do not know   **(N=142)**

 *Because about half of the respondents could not estimate the total dollar amount for their top three safety and security funding priorities, we cannot provide representative dollar amounts.

40. Considering your transit property's current funding situation, what sources (e.g., federal, state, or local) do you think you will use to fund the top safety and security priorities that you identified in question 38? *(Check all that apply.)* **N=144**

 1. **[59%]** Federal funds
 2. **[39%]** State funds
 3. **[42%]** Local funds
 4. **[10%]** Other (e.g., fare box revenue, loans) - Specify: _____
 5. **[24%]** Will probably not fund because of inadequate funds from above sources
 6. **[25%]** Have not determined

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Section: Transit Agency Preparation

41. Please provide an answer in each column:
   a. <u>Prior to September 11, 2001</u>, what steps had your transit property taken to improve its safety and security?
   b. <u>Since September 11, 2001</u>, what steps has your transit property taken to improve its safety and security?
   (Check "yes" or "no" in each column.)

	Column A	Column B
	Step was taken <u>prior to</u> September 11	**Step has been taken <u>since</u> September 11**
Emergency planning and assessments		
Revised/created emergency plans, including acts of extreme violence	**[40%]** Yes **[60%]** No **N=146**	**[48%]** Yes **[52%]** No **N=146**
Had outside entity (i.e., FTA, FBI, state police, professional organization) review your emergency plans	**[24%]** Yes **[76%]** No **N=145**	**[32%]** Yes **[68%]** No **N=146**
Reviewed city or regional plans to ensure integration of transit property	**[46%]** Yes **[54%]** No **N=146**	**[50%]** Yes **[50%]** No **N=145**
Conducted security vulnerability assessments	**[33%]** Yes **[67%]** No **N=145**	**[54%]** Yes **[46%]** No **N=146**
Developed levels of threat	**[12%]** Yes **[88%]** No **N=146**	**[25%]** Yes **[75%]** No **N=146**
Participated in FTA's security audits	**[15%]** Yes **[85%]** No **N=145**	**[20%]** Yes **[80%]** No **N=145**
Participated in the American Public Transportation Association's (APTA) safety audits	**[17%]** Yes **[83%]** No **N=144**	**[15%]** Yes **[85%]** No **N=145**
Training		
Conducted or participated in emergency drills	**[58%]** Yes **[42%]** No **N=145**	**[59%]** Yes **[41%]** No **N=146**

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Conducted or participated in table top exercises	[39%] Yes [61%] No **N=145**	[42%] Yes [58%] No **N=146**
Trained personnel on emergency plans or procedures	[66%] Yes [34%] No **N=145**	[64%] Yes [36%] No **N=145**
Participated in seminars/conferences on security	[42%] Yes [58%] No **N=145**	[59%] Yes [41%] No **N=146**
Reviewed reports on transit security and terrorism	[44%] Yes [56%] No **N=144**	[73%] Yes [27%] No **N=145**
Created special operations response teams	[14%] Yes [86%] No **N=145**	[23%] Yes [77%] No **N=146**
Coordination with local, state, and federal entities		
Participated in antiterrorism taskforces	[8%] Yes [93%] No **N=145**	[21%] Yes [79%] No **N=146**
Developed procedures with local, state, and federal agencies regarding emergency response	[51%] Yes [49%] No **N=146**	[59%] Yes [41%] No **N=145**
Coordinated with federal agencies	[16%] Yes [84%] No **N=145**	[24%] Yes [76%] No **N=146**
Coordinated with local and state government entities, including law enforcement	[65%] Yes [35%] No **N=146**	[71%] Yes [29%] No **N=146**
Coordinated with other transit agencies	[25%] Yes [75%] No **N=145**	[29%] Yes [71%] No **N=146**
Activities involving staff		
Conducted background checks on all employees	[74%] Yes [26%] No **N=146**	[74%] Yes [26%] No **N=145**
Increased visibility of facility personnel (e.g., personnel wear brightly colored vests)	[18%] Yes [82%] No **N=146**	[25%] Yes [75%] No **N=145**

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Required staff to display photo ID at all times	**[21%]** Yes **[79%]** No **N=146**	**[41%]** Yes **[59%]** No **N=144**
Tracked employee sick days as an indicator of potential hazards	**[18%]** Yes **[82%]** No **N=144**	**[19%]** Yes **[81%]** No **N=144**
Other activities		
Purchased security technology (e.g., surveillance equipment)	**[50%]** Yes **[50%]** No **N=146**	**[44%]** Yes **[56%]** No **N=145**
Purchased security infrastructure (e.g., fencing, lighting)	**[54%]** Yes **[46%]** No **N=145**	**[41%]** Yes **[59%]** No **N=145**
Made computer system more secure ("hardened" computer system)	**[49%]** Yes **[51%]** No **N=144**	**[44%]** Yes **[56%]** No **N=145**
Conducted public education/awareness campaign for transit safety/security	**[18%]** Yes **[82%]** No **N=146**	**[23%]** Yes **[77%]** No **N=146**
Developed after-event media relations protocol	**[34%]** Yes **[66%]** No **N=145**	**[37%]** Yes **[64%]** No **N=146**
Tracked reports of sick riders as an indicator of potential hazards	**[4%]** Yes **[96%]** No **N=145**	**[6%]** Yes **[94%]** No **N=145**
Other(s) - Please describe:		

24

42. Please use the space below to provide any additional comments regarding the survey or your
    system's transit safety and security.

    _____

    _____

    _____

    _____

    _____

    _____

    _____

    _____

    _____

    _____

Thank you very much for your assistance.

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Scope and Methodology

To address our objectives, we visited 10 transit agencies across the country, including the Capital Metropolitan Transportation Authority in Austin; Chicago Transit Authority; Central Florida Regional Transit Authority in Orlando; Los Angeles County Metropolitan Transportation Authority; Minneapolis-St. Paul Metropolitan Council; New York City Transit; Regional Transportation District in Denver; San Francisco Bay Area Rapid Transit; San Francisco Municipal Railway; and Washington Metropolitan Area Transit Authority in the District of Columbia. We selected these agencies because they represent different geographical areas and operate transit systems of different sizes and modes. (See fig. 10 and table 1.) During our site visits, we interviewed key officials from the transit agencies and the respective city governments and reviewed the transit agencies' emergency plans.

Figure 10: Location of the 10 Transit Agencies Visited

Source: GAO presentation.

Table 1: Profiles of the 10 Transit Agencies Visited, 2000

Transit agency	Urban area served	Population served[a]	Service area (sq. miles)	Services provided				Average weekday unlinked trips[c]
				Heavy rail	Light rail	Bus	Other[b]	
Capital Metropolitan Transportation Authority (CMTA)	Austin, TX	604,621	572			x	x	130,640
Central Florida Regional Transportation Authority (LYNX)	Orlando, FL	1,357,852	2,538			x	x	70,546
Chicago Transit Authority (CTA)	Chicago, IL--Northwestern IN	3,708,773	356	x		x	x	1,562,105
Los Angeles County Metropolitan Transportation Authority (LACMTA)	Los Angeles, CA	8,450,001	1,423	x	x	x		1,281,375
Minneapolis-St. Paul Metropolitan Council (Metro Transit)	Minneapolis--St. Paul, MN	2,265,788	1,105			x		243,987
New York City Transit (NYCT)	New York, NY--Northeastern NJ	7,322,000	322	x		x	x	8,206,391
Regional Transportation District (RTD)	Denver, CO	2,400,000	2,406		x	x	x	259,703
San Francisco Bay Area Rapid Transit District (BART)	San Francisco--Oakland, CA	829,156	103	x				310,268
San Francisco Municipal Railway (MUNI)	San Francisco--Oakland, CA	792,049	49		x	x	x	713,266
Washington Metropolitan Area Transit Authority (WMATA)	Washington, D.C.--MD--VA	3,363,031	945	x		x	x	1,169,806

[a]Population information comes from 1990 census data.

[b]"Other" includes trolleybus, cable car, demand response, and vanpool.

[c]Unlinked trips are 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.

Source: National Transit Database.

In addition to our site visits, we surveyed a sample of 200 transit agencies. The sample from which we drew our population consisted of all transit agencies throughout the nation that are eligible to receive federal urbanized area formula funding, according to the most up-to-date list of

eligible agencies provided by the National Transit Database. The results of our mail survey are generalizable to this population, which we refer to as our sample population.

We stratified our sample population into two groups—agencies that serve urbanized areas with a population of 200,000 or more (large urbanized areas); and agencies that serve urbanized areas with a population of 50,000 to 199,999 (small urbanized areas). We distinguished between these two strata because agencies that operate in large urbanized areas are prohibited from using federal urbanized area formula funds for operating expenses, whereas agencies in small urbanized areas are not prohibited from using FTA funds for operating expenses. We randomly selected 100 agencies from each stratum to survey.

Our overall survey response rate was 78 percent. However, we excluded 9 surveys from our analysis after determining that these transit agencies were outside the scope of our review for one of the following reasons: they had gone out of business (3); they were subsidiaries of other agencies included in our sample (2); or they did not provide bus, customized community transport, rail, subway, or ferryboat services (e.g., they only provide vanpool service) (4). The reported survey results are based on the responses of the subpopulation of 146 agencies within the scope of our review.

To help design our survey instrument, we reviewed surveys on transit safety and security conducted by FTA, the American Public Transportation Association (APTA), and the Transportation Cooperative Research Program. We also obtained input from Department of Transportation, FTA, and transit agency officials; and representatives from APTA and the Mineta Transportation Institute. After developing the survey instrument, we pretested the content and format of the survey with officials from several transit agencies and made necessary revisions. All returned questionnaires were reviewed, and we called respondents to obtain information when questions were not answered or clarification was needed. All data were double-keyed and verified during data entry, and computer analyses were performed to identify any inconsistencies or other indications of error. A copy of the mail questionnaire is included in appendix I.

All sample surveys are subject to sampling error—that is, the extent to which the survey results differ from what would have been obtained if the whole population had been observed. Measures of sampling error are

defined by two elements, the width of the confidence intervals around the estimate (sometimes called the precision of the estimate) and the confidence level at which the intervals are computed. Because we followed a probability procedure based on random selections, our sample is only one of a large number of samples that we might have drawn. Moreover, because each sample could have provided different estimates, we express our confidence in the precision of our particular sample's results as a 95-percent confidence interval (e.g., plus or minus 5 percentage points). This is the interval that would contain the actual population value for 95 percent of the samples we could have drawn. As a result, we are 95-percent confident that the confidence intervals for each of the mail survey questions includes the true values in the sample population.

All percentage estimates from the mail survey have sampling errors of plus or minus 10 percentage points or less, unless otherwise noted. In addition, other potential sources of error associated with surveys, such as misinterpretation of a question and nonresponse, may be present, although nonresponse errors should be minimal.

Finally, in addition to our site visits and survey, we analyzed agency documents and interviewed transit agency officials, industry representatives, and academic experts. We analyzed FTA budget data, safety and security documents, and applicable statutes and regulations. We reviewed research on terrorism and attended transit security forums sponsored by APTA and FTA. Finally, we interviewed FTA, TSA, and Department of Transportation officials and representatives from APTA, the National Governors Association, the Mineta Transportation Institute, RAND Corporation, the University of California at Los Angeles, and the Amalgamated Transit Union.

We conducted our review from May through October 2002 in accordance with generally accepted government auditing standards.

Selected Survey Results

This appendix provides our analysis of the responses we received to selected questions from our survey of 200 transit agencies in the United States. (See app. I for the overall survey results and our survey instrument.) This analysis provides information about the characteristics, including both general and safety- and security-related characteristics, of the transit agencies surveyed. Differences in the characteristics of transit agencies in large urbanized areas (populations of 200,000 or more) and transit agencies in small urbanized areas (populations between 50,0000 to 199,999) are also presented.[32]

Services Provided by Transit Agencies Surveyed

The transit agencies we surveyed provide a variety of transit services, including bus, rail, and ferryboat. Although a mix of services is provided by the surveyed transit agencies, bus is by far the most common transit service provided. (See fig. 11.) Our survey results also indicate that there are some differences between transit agencies in large urbanized areas and transit agencies in small urbanized areas. For example, transit agencies in large urbanized areas offer more types of services than transit agencies in small urbanized areas. Additionally, transit agencies in large urbanized areas were more likely to provide rail services than transit agencies in small urbanized areas and were the only agencies to provide subway service.

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[32]Unless otherwise noted, all estimates by size of agency have sampling errors of plus or minus 13 percentage points or less.

Figure 11: Types of Transit Services Offered by Surveyed Transit Agencies
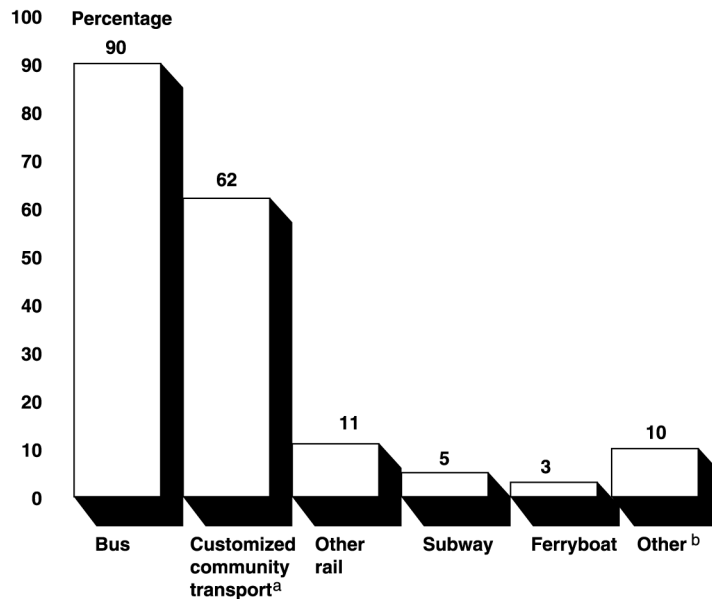
Source: Analysis of GAO survey results.

[a]Customized community transport is characterized by (1) vehicles that do not usually operate over a fixed route or on a fixed schedule and (2) vehicles that may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. For our survey, we classified paratransit and demand response as forms of customized community transport.

[b]"Other" includes inclined plane service, connecting shuttle service, vanpools, and special events service.

Ridership of Transit Agencies Surveyed

The transit agencies we surveyed reported that they provided almost 10 billion unlinked passenger trips[33] in fiscal years 2000 and 2001. Specifically, according to the agencies, they provided a total of 4.7 billion unlinked passenger trips in fiscal year 2000 and 4.9 billion trips in fiscal year 2001. Our survey results also indicate that transit agencies in large urbanized areas carry more passengers than transit agencies in small urbanized areas. For example, the majority of transit agencies in small urbanized areas

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[33]Unlinked passenger trips are 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.

reported that they provided fewer than 1 million passenger trips in fiscal year 2001, while the majority of transit agencies in large urbanized areas provided more than 1 million passenger trips. Moreover, 7 percent of the transit agencies in large urbanized areas stated that they provided more than 100 million passenger trips in fiscal year 2001. No transit agency that we surveyed in a small urbanized area served that number of passengers. (See fig. 12.)

Figure 12: Distribution of Transit Agencies by the Number of Unlinked Passenger Trips in Fiscal Years 2000 - 2001
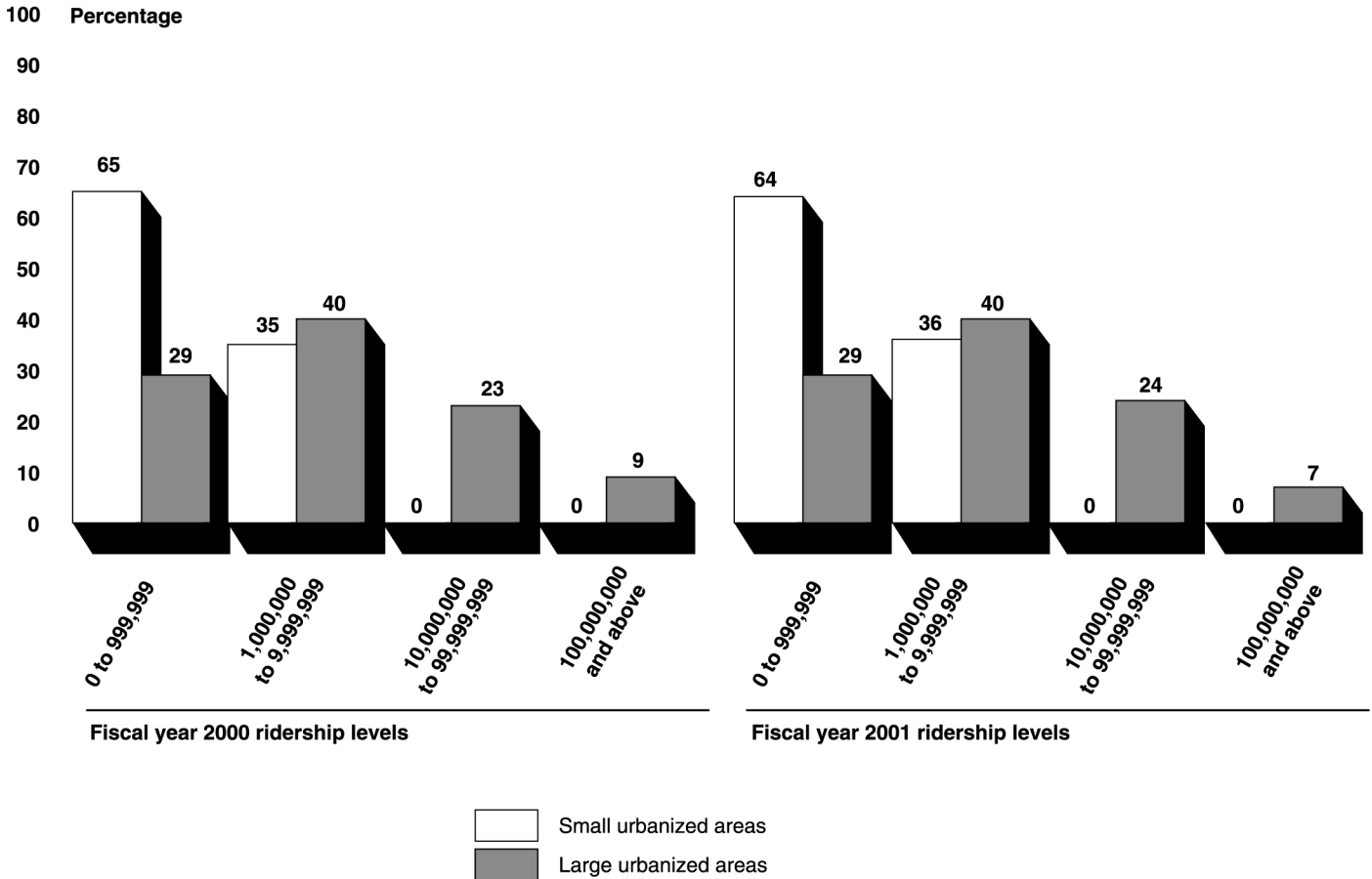
Source: Analysis of GAO survey results.

Note: Percentages may not add to 100 because of rounding.

Operating and Capital Budgets of Transit Agencies Surveyed

According to our survey results, transit agencies in large urbanized areas typically have bigger operating and capital budgets than transit agencies in small urbanized areas. (See fig. 13.) In particular, 57 percent of the transit agencies in large urbanized areas have operating budgets of more than $10 million, while 10 percent of transit agencies in small urbanized areas have operating budgets of comparable size. Additionally, 32 percent of the transit agencies in large urbanized areas have capital budgets of more than $10 million. In comparison, none of the transit agencies in small urbanized areas that we surveyed had capital budgets of that magnitude.[34]

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[34]Depending on the fiscal year, between about one-third and two-thirds of the agencies we surveyed could only provide estimates of the amount of their total operating and capital funds that were spent on safety and security activities. Furthermore, additional analysis raised questions about data reliability. Therefore, we cannot reliably determine the percentage of the agencies' capital and operating budgets that are used for safety and security activities.

Figure 13: Distribution of Transit Agencies by the Size of Their Operating and Capital Budgets, Fiscal Year 2001

Operating budget levels

Capital budget levels

☐ Small urbanized areas

■ Large urbanized areas
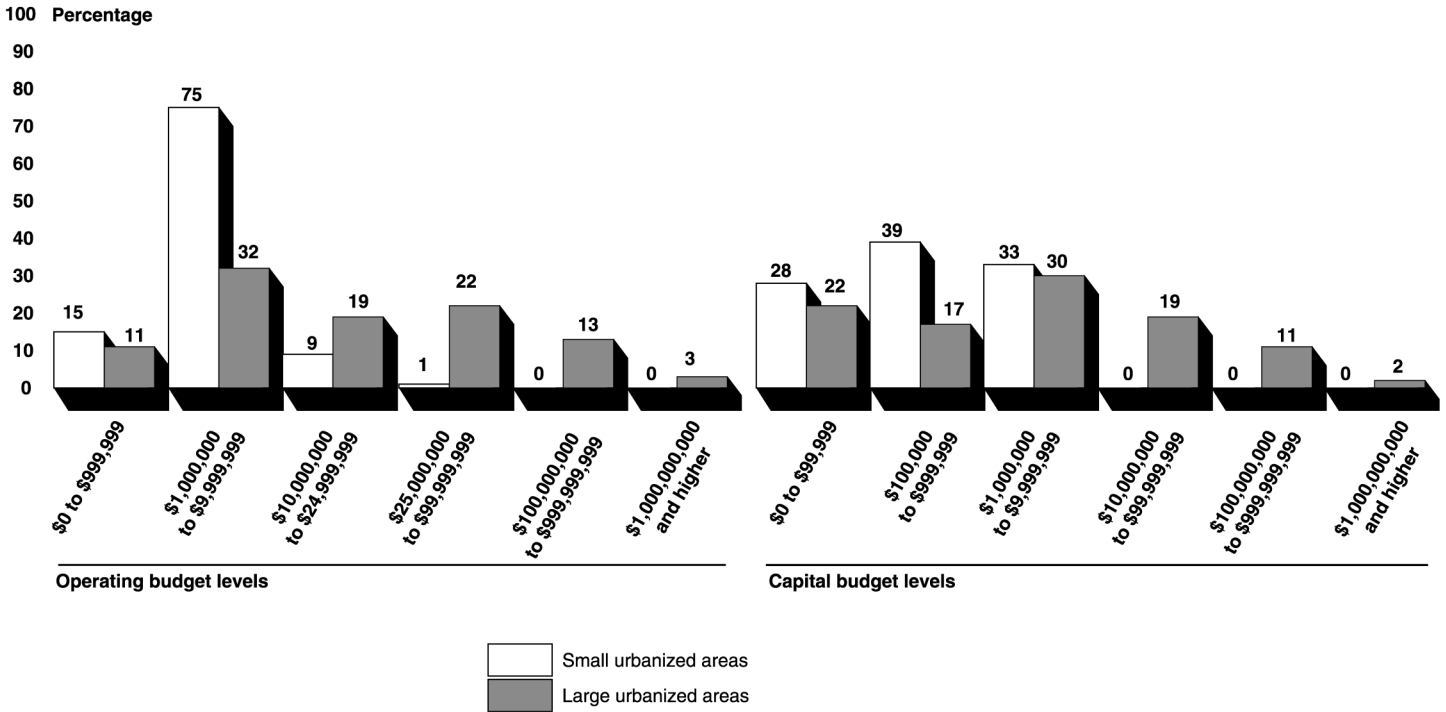
Source: Analysis of GAO survey results.

Note: Percentages may not add to 100 percent due to rounding.

Security of Transit Agencies Surveyed

Most transit agencies we surveyed either contract with a security service (35 percent) and/or have established agreements with local or state police (34 percent) to provide security for their property. However, our survey did reveal some differences between transit agencies in large and small urbanized areas in terms of their transit properties' security, as shown in figure 14. For example, of the transit agencies we surveyed, only those agencies in large urbanized areas had their own transit police officers.

Figure 14: Types of Security Used by Transit Agencies in Large and Small Urbanized Areas
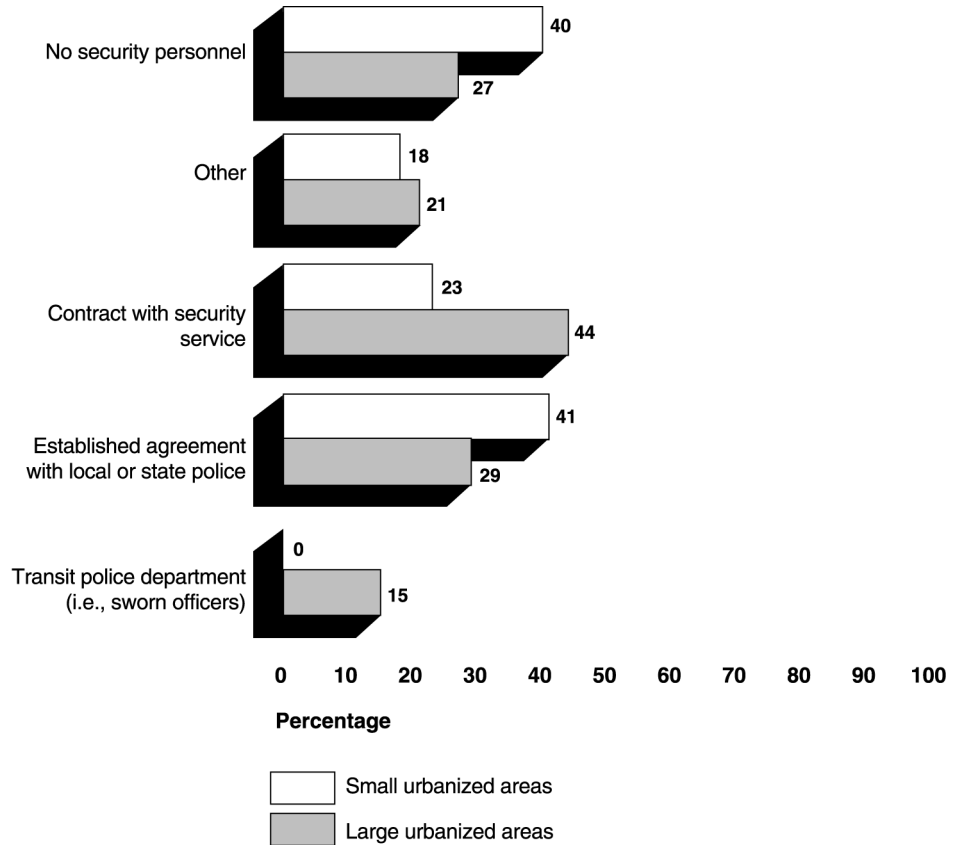
Source: Analysis of GAO survey results.

Funding Sources for Transit Safety and Security Needs of Transit Agencies Surveyed

Our survey results show that all transit agencies we surveyed rely on a variety of federal, state, and local sources to fund safety and security expenses. As figure 15 shows, transit agencies in large and small urbanized areas identified local funds as the most common source of funding for safety and security operating expenses. A notable difference between transit agencies in large and small urbanized areas appears in their use of FTA funds. In particular, 62 percent of agencies in small urbanized areas identified FTA funds as a source of funds for safety and security operating expenses, while 23 percent of agencies in large urbanized areas identified this as a source. In contrast to safety and security operating expenses, we

found that the most common source of funds for safety and security capital expenses is FTA funds. (See fig. 16.)

Figure 15: Sources of Funds for Operating Expenses Used by Transit Agencies in Large and Small Urbanized Areas
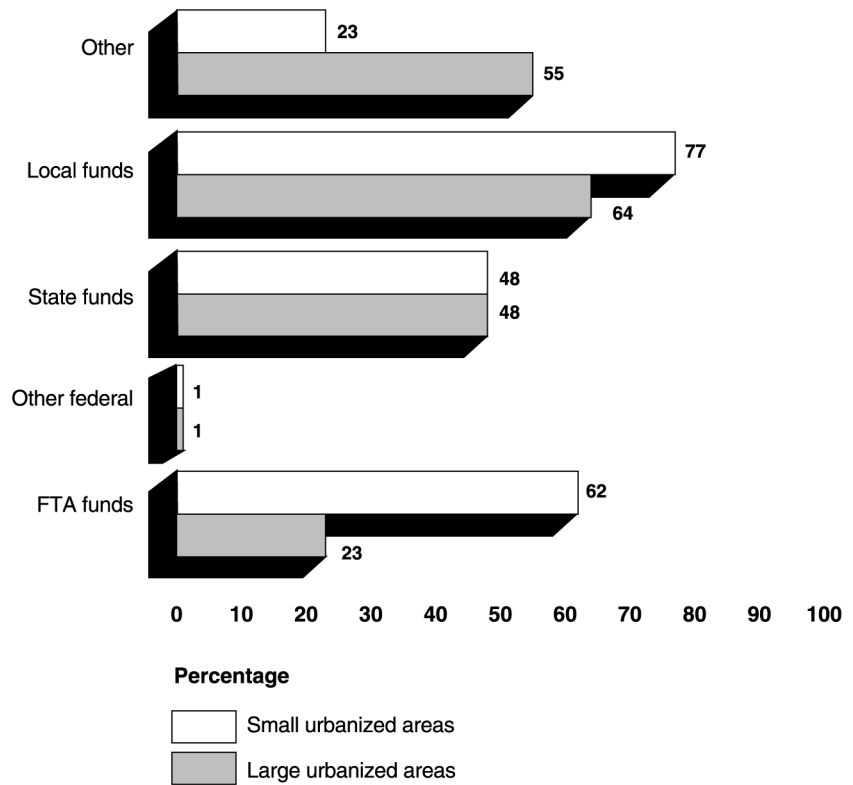
Source: Analysis of GAO survey results.

Figure 16: Sources of Funds for Capital Expenses Used by Transit Agencies in Large and Small Urbanized Areas
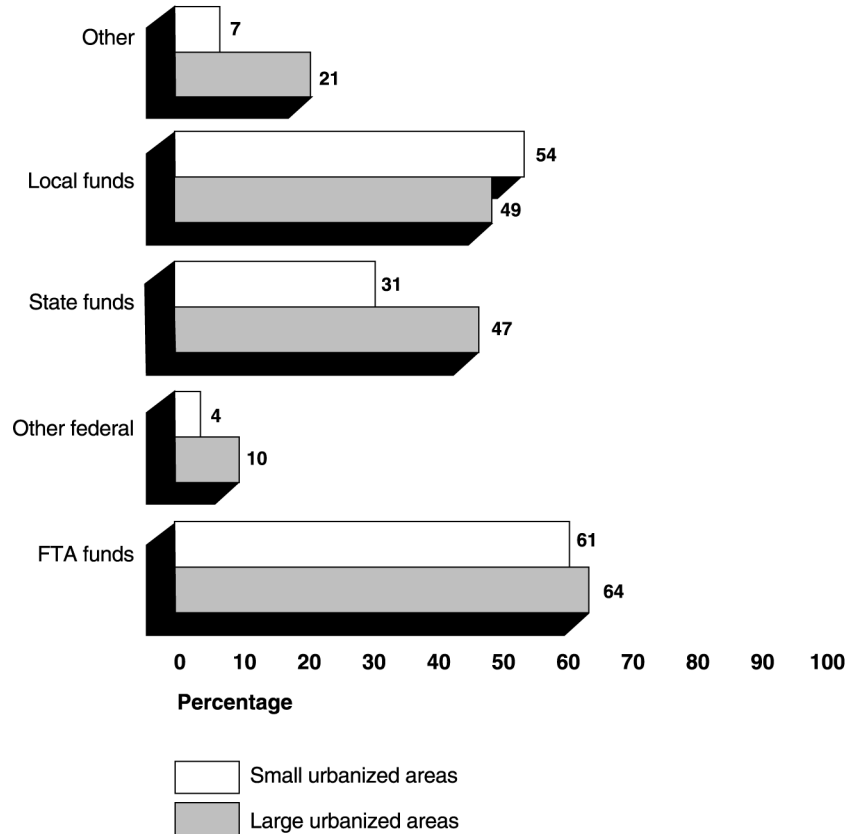
Source: Analysis of GAO survey results.

Acts of Extreme Violence against Transit Agencies Surveyed

The majority of the transit agencies we surveyed do not believe they are likely targets for acts of extreme violence. In particular, 62 percent of transit agencies we surveyed believe they are unlikely or very unlikely to be the target of an act of extreme violence in the next 5 years. By contrast, 6 percent of the transit agencies we surveyed consider the likelihood of an act of extreme violence on their property likely or very likely. Thirty-one percent of the transit agencies we surveyed believe they are as likely as not to experience an act of extreme violence on their property in the next 5 years.

In addition, the majority of the transit agencies we surveyed have not experienced an act of extreme violence on their property in the past 5 years. Specifically, 66 percent of the transit agencies we surveyed said that they have not experienced acts of extreme violence on their systems. However, the agencies that have experienced acts of extreme violence have encountered a variety of situations. (See fig. 17.)

Figure 17: Acts of Extreme Violence during the Past 5 Years at Transit Agencies in Large and Small Urbanized Areas
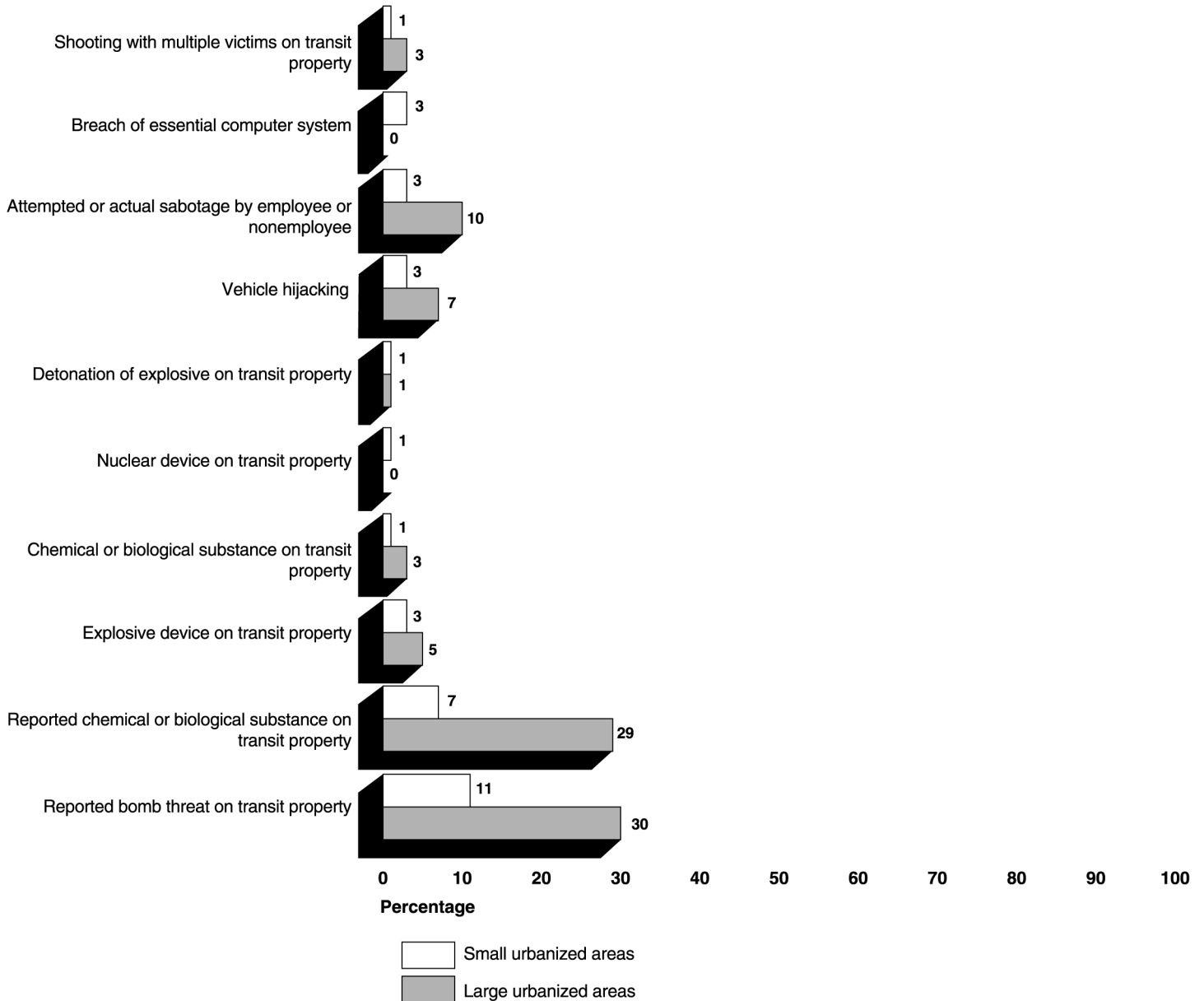
Source: Analysis of GAO survey results.

Surveyed Transit Agencies' Safety and Security Assessments

Seventy-five percent of the transit agencies we surveyed have conducted an assessment of their transit system. As figure 18 shows, the majority of the assessments have focused on general safety and security issues, not necessarily on the transit systems vulnerability to a terrorist threat or act of extreme violence. Seventy-seven percent of the agencies reported that their assessments have identified items needing action; however, the majority of these agencies indicated that a variety of factors have limited their ability to resolve the identified problems. According to these transit agencies, insufficient funding, the need to balance security and safety priorities with other priorities, and insufficient staff time or availability to complete action items were the top reasons why identified needs have not been addressed.

Figure 18: Types of Assessments Performed by Transit Agencies
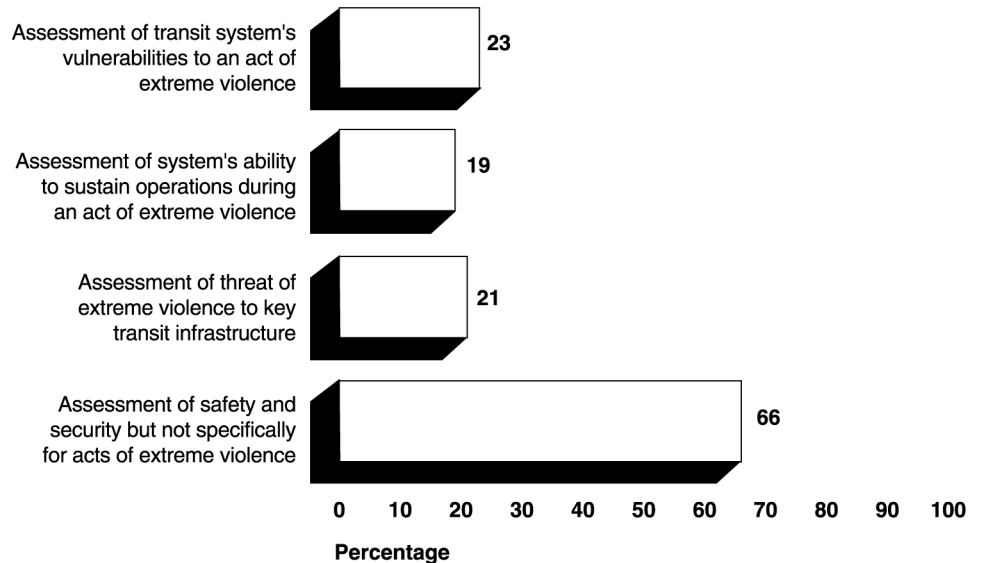
Source: Analysis of GAO survey results.

Emergency Plans of Transit Agencies Surveyed

Sixty-six percent of all surveyed agencies have emergency plans. In general, our survey results indicate that the majority of the agencies' emergency plans describe protocols for a number of emergency situations, such as natural disasters, reported bomb threats, and explosive devices. Moreover, our survey results also indicate that the majority of all agencies'

plans specify coordination with other entities, such as local police departments, and most agencies have shared their plans with other entities.

However, our survey results reveal that transit agencies in large urbanized areas have more comprehensive emergency plans than agencies in small urbanized areas, in terms of both the level of coordination with other entities and the number of scenarios addressed by the plans.[35] For example, as figure 19 shows, the emergency plans of agencies in large urbanized areas specify coordination with the media more often than plans of agencies in small urbanized areas. Furthermore, as figure 20 shows, the emergency plans of agencies in large urbanized areas address more emergency situations—such as an explosive device on the transit property—than the emergency plans of agencies in small urbanized areas.

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[35]In this section, estimates by size of agency have sampling errors of plus or minus 16 percentage points or less.

Figure 19: Types of Coordination Specified in Transit Agencies' Emergency Plans

Media: Small urbanized areas 27, Large urbanized areas 60

Federal transportation agencies: Small urbanized areas 16, Large urbanized areas 37

Federal law enforcement: Small urbanized areas 11, Large urbanized areas 21

State/local emergency management agencies: Small urbanized areas 50, Large urbanized areas 65

Other local transportation providers: Small urbanized areas 32, Large urbanized areas 42

Other transit agencies: Small urbanized areas 20, Large urbanized areas 46

Percentage: 0 10 20 30 40 50 60 70 80 90 100

Small urbanized areas
Large urbanized areas

Source: Analysis of GAO survey results.

Figure 20: Types of Emergency Situations Addressed in Transit Agencies' Emergency Plans
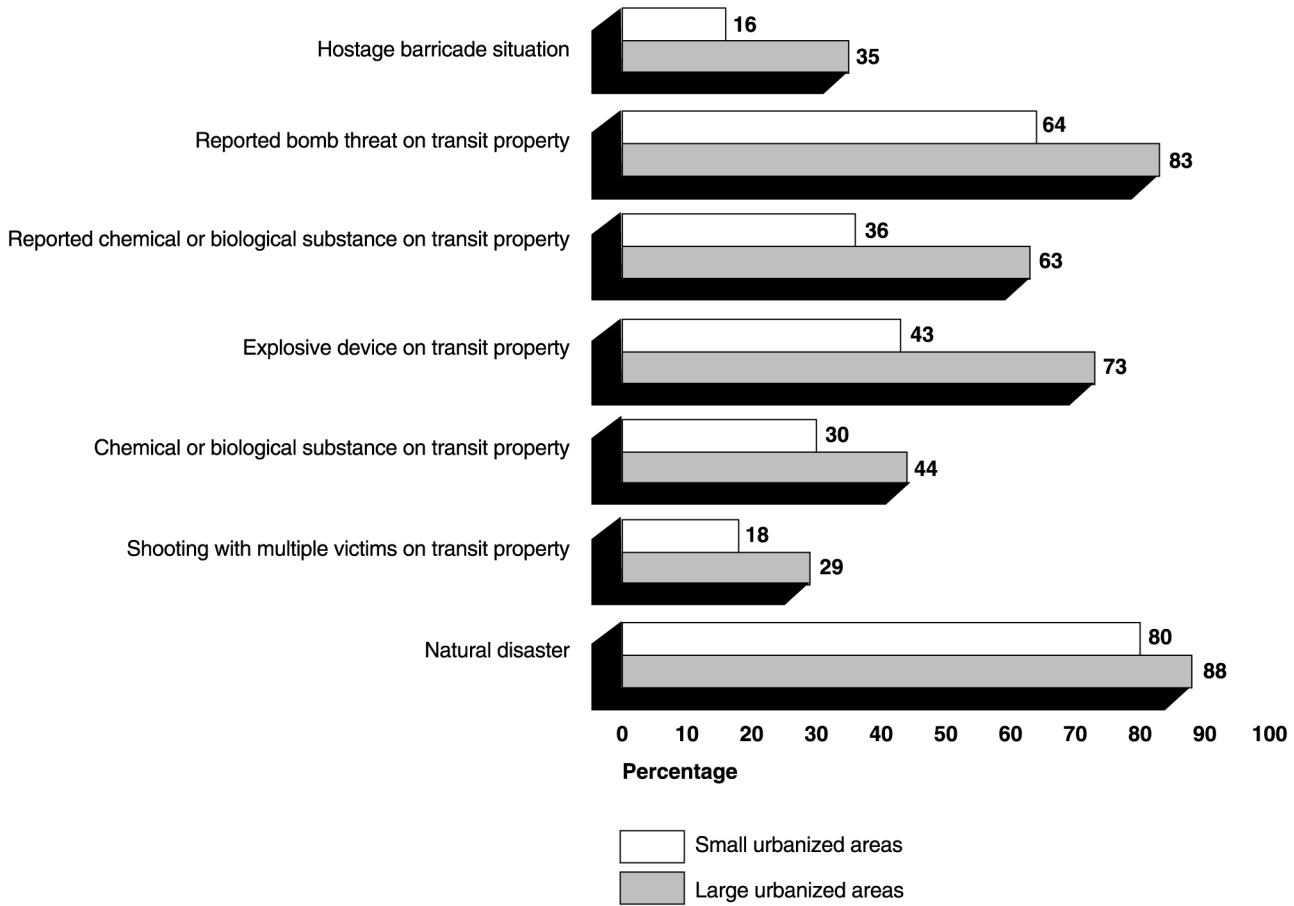
Source: Analysis of GAO survey results.

GAO Contacts and Staff Acknowledgments

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