

**SURVEY OF UNITED STATES
TRANSIT SYSTEM
SECURITY NEEDS**

SUMMARY OF FINDINGS

April 2010



***AMERICAN
PUBLIC
TRANSPORTATION
ASSOCIATION***

American Public Transportation Association
1666 K Street, N.W.
Suite 1100
Washington, DC 20006
(202) 496-4800

Survey of United States
Transit System Security Needs
Summary of Findings

April 2010

Published by the
American Public Transportation Association

Mattie P. Carter, Chair
Michael J. Scanlon, First Vice Chair
Nathaniel P. Ford, Sr., Secretary-Treasurer
Beverly A. Scott, Ph.D., Immediate Past Chair

Vice Chairs

J. Barry Barker
Doran J. Barnes
Linda J. Bohlinger
Christopher P. Boylan
Flora M. Castillo

Joyce Eleanor
Joseph J. Giuliatti
Sharon Greene
Delon Hampton, Ph.D., P.E.
Angela Iannuzziello, P.Eng.

Michael A. Sanders
Gary C. Thomas
Peter J. Varga
Alice Wiggins-Tolbert

APTA Security Affairs Steering Committee

Michael P. DePallo, Chair

President

William Millar

Contact: Brian Tynan
(202) 496-4897
btynan@apta.com

Table of Contents

Summary and Principal Findings.....	4
APTA Survey of United States Transit System Security Needs	5
Transit Funding Needs	5
Security Funds Received During The Past Three Years	6
Use of Funds Defined By Project Effectiveness Group Descriptions	8
Use of Funds vs. Actual Needs	10
Respondents Views on the Administration of the Transit Security Grant Program (TSGP).....	10
Other Security Needs Not Identified in This Survey.....	11
About Public Transportation in the U.S.	13

SUMMARY AND PRINCIPAL FINDINGS

The American Public Transportation Association (APTA) conducted a survey of 35 of its transit agency members during 2009 and early 2010 to determine agency security funding requirements, grants received in prior fiscal years, and the projects advanced through prior year grants. The participating transit systems were selected from APTA members who are eligible recipients of Federal Emergency Management Agency (FEMA) Transit Security Grant Program (TSGP) funding. Additional estimates of national needs were expanded beyond the survey respondents based on the portion of transit operations represented by the responding systems in six categories that represent equipment, infrastructure, and activity that requires security efforts. The principal findings of that survey are:

- ***Total security needs far surpass funding provided to date***
Transit agency security-related investment needs are \$6.4 billion. This amount is a 5-year estimate and includes \$4.4 billion for transit agency security-related capital investment plus \$2 billion for security-related personnel and other security-related operational expenses. Federal funding provided in FY2010 for public transportation security was \$253 million.
- ***Capital security needs remain a top priority, but many agencies cite operating needs***
Respondents to the survey estimated capital needs as exceeding operating needs by more than a 3 to 1 ratio. Disparities in priorities between large and small systems are indicative of the differences in infrastructure and assets requiring protection. Security operations needs are more likely to comprise a larger percentage of need for smaller systems.
- ***Transit security priorities vary from agency to agency***
Survey responses demonstrate that security priorities are unique to each individual agency, just as each individual agency's infrastructure, operations and governance is unique. Transit agencies seek more flexibility in the uses of funds and a streamlined application process. A broad list of eligible projects formed the basis for the *National Transit Systems Security Act of 2007* as contained within the *Implementing Recommendations of the 9/11 Commission Act (P.L. 110-53)*.
- ***Transit security resources are required beyond grant funds***
Beyond the grant funding sought by transit agencies, resources are needed in a variety of components within the Department of Homeland Security (DHS), including funding for information sharing and intelligence, security standards development, research and technology development, technical assistance, and the broader approaches towards cybersecurity and resiliency (all-hazards response).

For further information contact Brian Tynan, Senior Legislative Representative at (202) 496-4897, or e-mail btynan@apta.com.

APTA SURVEY OF UNITED STATES TRANSIT SYSTEM SECURITY NEEDS

The American Public Transportation Association (APTA) conducted a survey of 35 of its transit agency members during 2009 and early 2010 to determine agency security funding requirements, grants received in prior fiscal years, and the projects advanced through prior year grants. The participating transit systems were selected from APTA members who are eligible recipients of Federal Emergency Management Agency (FEMA) Transit Security Grant Program (TSGP) funding. The sample of systems operates 43.0 percent of all transit vehicles that were reported in the Federal Transit Administration (FTA) National Transit Database (NTD) in 2008, operates 52.4 percent of all revenue vehicle miles, operates 64.0 percent of all passenger stations and 62.9 percent of all rail transit right-of-way measured by directional-route miles, and carries 71.8 percent of all passenger trips and 68.1 percent of all passenger miles of travel.

TRANSIT FUNDING NEEDS

Respondents were asked to report their 5-year security funding needs for capital and for operations. Table 1 shows those needs as reported by the participating agency and expanded to include other transit agencies.

Table 1: Five-Year Security Funding Needs

Transit Systems Included in Estimate	Five Year Funding Needs (Millions of Dollars)		
	Capital	Operating	Total
Respondents to Survey for These Questions	2,204	655	2,859
Systems Eligible for TSGP Funds	3,286	1,518	4,804
All Transit Agencies in Any Location	4,419	2,018	6,437

The security funding needs over the next five years for all transit systems are \$6.4 billion, \$4.4 billion for capital and \$2.0 billion for operating. Among all transit systems eligible for TSGP funding these needs are \$4.8 billion, \$3.3 billion for capital and \$1.5 billion for operations.

These needs are based on the 34 survey respondents who were able to forecast capital funding needs and the 33 who were able to forecast operating funding needs. Respondents which provided needs estimates found a total security related funding need of \$2.9 billion for their systems, \$2.2 billion for capital uses and \$0.7 billion for operations. The responses were expanded to estimate needs for other transit agencies. The expansions were based

on the portion of transit operations represented by the responding systems in six categories that represent equipment, infrastructure, and activity that requires security efforts. These categories are the following: total vehicles operated, vehicle miles in revenue service, unlinked passenger trips, passenger miles, stations, and directional miles of rail routes. Data are taken from the 2008 National Transit Database and APTA's 2009 Public Transportation Fact Book.

APTA published a survey of transit systems security needs in April, 2004. That survey was used to project security funding needs for the entire transit industry. Capital needs to "maintain, modernize, and expand" the security function were \$5.2 billion without a specified time period. Annual operating needs were \$800 million which included existing security operating expenses. Those needs are most comparable to the \$6.4 billion need for all agencies for the next 5 years estimated in this survey.

SECURITY FUNDS RECEIVED DURING THE PAST THREE YEARS

Respondents were asked the amount of funds they received during each of Fiscal Years (FY) 2006, 2007, and 2008 for security related projects regardless of the source. Because these amounts are not expected to be of a similar amount for non-participating systems in any consistent manner, no funding estimates are made for non-participating systems. Transit security grants were also distributed during Fiscal Years 2003, 2004 and 2005; however this survey limited the request to the most recent three fiscal years for ease of reporting. Data regarding Fiscal Year 2009 grants was not available at the time of this survey.

Table 2: Security Project Funding for Survey Participants

Funding Source	Funding Amount for Participating Systems Only (Millions of Dollars)		
	FY 2006	FY 2007	FY 2008
TSGP Grants	103.8	146.3	143.2
Agency Match for TSGP Grants	0.6	5.5	4.8
State, Local Security Grants	46.6	41.5	41.1
Agency Match for State, Local Grants	26.7	19.7	18.2
Total Security Funding	177.7	213.0	207.3

USE OF FUNDS DEFINED BY PROJECT EFFECTIVENESS GROUP DESCRIPTIONS

FEMA groups security projects into five categories termed Project Effectiveness Group Descriptions (PEGD) which are used to prioritize investments. The five groups and the project types they include, as described in the *Fiscal Year 2010 Transit Security Grant Program Guidance and Application Kit December 2009*, are:

Priority Group A, "Training, Operational Deterrence, Drills, and Public Awareness Activities" which includes: Developing Security Plans; Training (basic before follow-on) for Security Awareness, DHS-Approved Behavior Recognition Detection Courses, Counter-Surveillance and Immediate Actions for Security Threats/Incidents; Operational Deterrence for Canine Teams, Mobile Explosives Screening Teams, and Anti-Terrorism Teams; Crowd Assessment; and Public Awareness.

Priority Group B, "Multi-User High-Density Key Infrastructure Protection" which includes: Anti-terrorism security enhancement measures, such as intrusion detection, visual surveillance with live monitoring, alarms tied to visual surveillance system, recognition software, tunnel ventilation and drainage system protection, flood gates and plugs, portal lighting, and similar hardening actions for: Tunnel Hardening; High-Density Elevated Operations, Multi-User High-Density Stations, and Hardening of Supervisory Control and Data Acquisition (SCADA) systems.

Priority Group C, "Single-User High-Density Key Infrastructure Protection" Anti-terrorism security enhancement measures for High-Density Stations, and High-Density Bridges.

Priority Group D, "Key Operating Asset Protection" which includes: Physical Hardening/Security of Control Centers; Secure stored/parked trains, engines, and buses; Bus/Rail Yards; and Maintenance Facilities.

Priority Group E, "Other Mitigation Activities" which includes Interoperable Communications, Evacuation Plans, and Anti-terrorism security enhancement measures for low-density stations.

In addition, larger systems in high risk areas meeting activity criteria are eligible for funding for operational activities with Operational Package (OPack) funds.

Table 3 reports the number of agencies in the sample which received TSGP funds and matching funds for use for each PEGD category for Fiscal Years 2006, 2007, and 2008 in the columns to the left and the use of funds from other sources in similar categories for the same years in the columns to the right. Thirty-five systems answered each question.

Table 3: Use of Funds by PEGD Category

Project Effectiveness Group Description Category	Use of TSGP - Number of Grants by Category			Use of Non-Federal Funding Sources, Number of Grants Using Funds by Category		
	Fiscal Year 2006	Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2006	Fiscal Year 2007	Fiscal Year 2008
A. Training, Operational Deference, Drill, Public Awareness	8	24	20	6	8	8
B. Multi-User High-Density Key Infrastructure Protection	12	13	16	8	8	8
C. Single-User High Density Key Infrastructure Protection	7	5	5	5	5	7
D. Key Operating Asset Protection	19	16	11	11	12	10
E. Other Mitigation Activities	5	6	7	7	9	8
Operational Packages (OPacks)	0	8	5	5	6	5

USE OF FUNDS BY PROJECT DESCRIPTIONS

Participating transit systems were asked an open ended question to list examples of the types of projects for which they used security funding. The question was repeated for each year for both TSGP and Matching Funds and State and Local Funding. Table 4 counts those answers in generalized categories into which they appeared to fit. Not all answers are included and many participants did not answer for each year. This table is thus a list of project types and should not be considered a count of the number of each project type actually undertaken.

Table 4: General Types of Projects Reported by Participants

Type of Project	Projects Implemented - Categorized By General Types (Open Ended Question, Not All Systems Answered Question for Each Year and Not All Uses Were Listed)					
	TSGP and Matching Funds			State and Local Funding		
	FY 2006	FY 2007	FY 2008	FY 2006	FY 2007	FY 2008
Closed Circuit TV and CCTV Support	15	7	10	7	7	7
Access Control	5	2	3	2	3	2
Intrusion/Perimeter Monitoring/Protection	2	6	4	2	4	2
Chemical Detection Equipment	2	0	0	0	0	0
Awareness Training	4	1	2	0	0	0
Behavior Recognition Software	1	0	0	0	0	0
K-9 Related Equipment/Training	1	0	0	1	1	2
Training and Exercises	7	14	15	0	0	1
Public Awareness	1	2	3	0	0	0
Communications Improvements and Equipment Upgrades	3	0	2	2	1	5
Tunnel Communications	1	0	0	0	0	0
Security Planning	1	1	3	0	1	0
Infrastructure Protection/Fencing/Lighting	1	0	0	2	2	3
Control Center and Control Equipment Redundancy/Improvement	2	1	0	0	0	0
Tunnel Protection and Tunnel Access Equipment	2	3	2	0	0	0
Vehicle Location System	1	0	0	0	0	0
Portal Security	1	0	2	0	0	0
Station Security	1	1	1	1	1	0
Passenger Information systems	0	1	0	0	0	0
Risk Assessment	0	1	3	0	0	0
License Plate Recognition Equipment	0	0	1	0	0	0
Electronic Security	0	0	1	0	0	0
Guards, Police	0	0	0	4	4	4

Use of Funds vs. Actual Needs

It is important to note that survey responses on funding uses should not be seen as indicators of transit agency security funding priorities. Instead they are provided to simply demonstrate where funding has been spent. APTA and many of its members continue to have concerns that the categorical prioritization of funding within the TSGP unnecessarily restricts agencies from applying for security grants for projects they would otherwise deem more important to their specific agency security mission. The statutory provisions of the *Implementing Recommendations of the 9/11 Commission Act* which outlined the eligible use of funds did so in a broad and generic manner in order to specify the wide range of eligible uses, and not in the restrictive and prioritized manner prescribed by TSGP grant guidance.

RESPONDENTS VIEWS ON THE ADMINISTRATION OF THE TSGP

[NOTE: Changes to TSGP administration have been implemented in response to grantee concerns since APTA's survey was conducted, some of which are reflected in the FY 2010 Grant Guidance.]

The administration of the TSGP has been of significant concern to the transit industry over the last several years, with changes to policy and priorities occurring each year creating challenges for grantees to implement their own security budgets, plans and programs in a consistent manner. APTA's survey asked open-ended questions regarding grantees views on the TSGP administration.

Many agencies sought additional availability of funds for operational security needs, while other agencies felt the program should be limited to capital security improvements. It was widely viewed that TSGP grants should be comprised of 100 percent federal funding, so as not to jeopardize important security projects because of other budget limitations. Multiple comments were received calling for operating and maintenance costs of TSGP funded equipment to be considered an eligible expense.

The grant process timeline was widely perceived as too long and time consuming given the amount of funds available to agencies. Early release of grant guidance was a recommendation that would allow for timelier grant application submission.

Concerns were expressed that the TSGP did not allow "pre-award" authority. This inconsistency with Federal Transit Program grants not only added to confusion in agency dealings with FEMA and the Transportation Security Administration (TSA), but also had the potential to lead certain project expenditures to be ineligible because of relatively minor administrative details, thereby affecting the transit agency's ability to expend the funds as programmed.

A variety of administrative process recommendations were made in the comments section, such as urging DHS to follow the FTA practice of utilizing annual audits for agencies with certified grantees business systems and practices. Many of the paperwork requirements and record keeping processes in place were seen as duplicative.

Additional projects that have been excluded or overly restricted include consequence management projects, continued sustenance and life-cycle maintenance of security projects, interoperable communications, and redundant power systems. Current allocations for management and administration are not sufficient for long term capital endeavors. Agencies require more flexibility in the assignment of in house flagging and escort crews for work tied to security projects. Some agencies argued for allowable costs to include program administration and project management. Several respondents argued that the guidance was unnecessarily restrictive as to the use of funds, since threats and technology are regularly subject to change. As well, needs vary from transit agency to transit agency according to inherent risk exposures and current state of infrastructure and technological applications.

Many agencies commented that operational funding should be available for projects and purposes other than the currently defined OPacks. Not all transit agencies control their own sworn law-enforcement, and as such often contract for services – often with private contractors or sworn forces of surrounding jurisdictions. The unavailability of funds for these purposes is seen as an unnecessary restriction.

Some agencies felt that the current grouping of agencies into Tiers did not adequately correlate their Tier to their risk, due to perceived unique regional security concerns. Smaller systems complained that despite their eligibility under the Tier system, they either had not been successful at obtaining grant funding. Some smaller agencies felt that minimum project amounts should be eliminated.

The wide variety of comments from agencies supports APTA's consistent call for less restrictive security grants and for a process that avoid the one-size-fits-all approach.

OTHER SECURITY NEEDS NOT IDENTIFIED IN THIS SURVEY

The funding needs and uses identified through this survey do not include Department-centric budgetary resources, such as those required for intelligence and information sharing, security standards development, and research and development.

Information and Intelligence

A high priority for the transit industry in the area of information sharing and intelligence is the continuation of a small but critical amount of annual funding for the annual maintenance of the Public Transportation Information Sharing and Analysis Center (PT-ISAC). Established in response to Presidential Decision Directive 63 and Homeland Security Presidential Directive 7 (HSPD-7), the PT ISAC is seen by transit security professionals as a highly valuable interactive resource for the dissemination and sharing of industry specific information and intelligence. A joint industry/government working group formed under the auspices of the Mass Transit Sector Coordinating Council (SCC)/Government Coordinating Council (GCC) is currently refining a proposal for security information sharing that would look to the PT-ISAC to becoming a permanent, expanded system that would coordinate the dissemination of all relevant security information to the public transit industry.

Security Standards

A similar high priority for the industry requiring continued, but relatively small amounts of funding is the transit security standards development program. Produced through the consensus-based process recommended by the American National Standards Institute (ANSI) and fully inclusive of federal stakeholders including the TSA, FTA and Federal Railroad Administration (FRA), the transit security standards program serves an extremely important guiding role for future policies and investments in transit security.

Research and Development

Additionally, resource allocation issues within the Department of Homeland Security have failed to adequately address the research and development needs of transit. In September 2008, the Mass Transit SCC Security Technology Working Group issued draft recommendations which identified concerns over the lack of a formal structure that brings the federal government and transit industry together to discuss transit security technology priorities, needs and areas of potential interest for technology advancement and research. There is a general view that TSA Research and Development, and DHS Science and Technology do not conduct adequate early outreach with the industry to determine needs ahead of actual technology development and deployment efforts. Transit security professionals believe that early and active engagement of industry could lead to a better understanding of varying transit agency needs, as well as better research and development overall.

Cybersecurity

Also, resources such as technical assistance and the like may be necessary for support of transit industry efforts in the area of cybersecurity. Concerns over cybersecurity have increased across the federal government and throughout the country over recent years, and transit agencies are no different. As significant users of power and computerized control systems, cybersecurity will remain a significant concern for an industry responsible for the safe and secure movement of 35 million daily riders.

Technical Support

Since September 11, 2001, the FTA initially and DHS subsequently have offered technical support from time to time to assist transit agencies in the ongoing development and strengthening of their security plans, processes, procedures and resources. This level of federal support continues to be an imperative need and necessitates DHS to ensure that such technical assistance is appropriately funded.

Resiliency and All-Hazards

Finally, as DHS and many others in the homeland security policy arena discuss issues of resiliency and “all hazards” approaches to security and emergency management policy, transit agencies are increasingly looked to as instruments for disaster response and evacuation, and as such have repeatedly responded to major incidents ranging from 9/11 to Hurricanes Katrina and Rita. Views on the resources made available to the Department for its overall budget should not overlook the potential transit needs in “all-hazards” response to the resiliency question.

ABOUT PUBLIC TRANSPORTATION IN THE U.S.

The United States transit industry carries over 10 billion riders a year for over 50 billion passengers miles. In 2008, 7.2 million people used transit as their primary means of commuting to work, 23 percent more than commuted on transit in 2000.

Transit service is provided by more than 387,000 employees operating 137,000 vehicles in the peak service period each weekday. Transit rail cars, buses, and vans provide 4.6 billion miles of revenue service in a year. Twenty-six commuter rail systems, 15 heavy rail systems, and 35 light rail systems provide service over 11,270 directional miles of routes, and along with bus service stop at 4,500 stations and numerous street locations.

APTA's Security Affairs Steering Committee serves in the role of the Mass Transit Sector Coordinating Council (SCC).